6-2020

Community College Student Success: Connections to Student Perceptions of Faculty Behaviors, and Classroom Motivators

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COMMUNITY COLLEGE STUDENT SUCCESS: CONNECTIONS TO STUDENT PERCEPTIONS OF FACULTY BEHAVIORS, AND CLASSROOM MOTIVATORS

by

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A dissertation submitted to the Graduate College
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
Educational Leadership, Research, and Technology
Western Michigan University
June 2020

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Western Michigan University, 2020

This study explored how community college students perceive certain faculty behaviors, its relationship with students' classroom motivators and how the perception of those behaviors and motivators predicts students' persistence and academic success. The statistics about the low rates of completion in higher education institutions is an issue that researchers and educational organizations are concerned about (Apolinar, 2013; Kolodner, 2015). Addressing this issue, a body of inquiring is focusing on the student-faculty relationship (Kezar & Maxey, 2014) revealing that faculty behaviors and student motivation are related to several students' outcomes (Lancaster & Lundberg, 2019; Wilson & Ryan, 2013). However, less is known regarding effective behaviors for community college faculty that help foster student success (Alexander, Karvonen, Ulrich, Davis, & Wade, 2012; Khandelwal, 2009). Such knowledge is needed in the Dominican Republic (DR), where the community college model is recently being implemented.

The research design of this study was a quantitative descriptive and predictive non-experimental research design, using an online survey. The sample consisted of 352 students from the first and only DR community college. The data was analyzed using independent T-Tests, ANOVA, Canonical Correlation Analysis, logistic and hierarchical multiple regressions.

Overall, results indicate that faculty qualities and behaviors accounts for 48.5% in the variance in students' classroom motivation. Findings reveal in more detail which faculty qualities and behaviors directly or indirectly have a higher influence in student motivation, persistence, and GPA. For example, it was found that encouragement behaviors such as demonstrating cares for student's well-being and praising a student for a job well done, were good predictors of student intent to persist. Fairness, such have realistic expectations for students, has significant positive correlation with students' expectancy for success, while control behaviors, such being authoritative, establishing academic goals, and managing class time, also are relevant, increasing the sense of interest and usefulness for non-traditional students. Success, usefulness, and interest when considered in isolation are good predictors of students' GPA, explaining 17%, 10%, and 6% respectively of the variance.

These findings offer more detailed insights to serve as reference for building faculty development programs, fostering faculty instructional methods and practice that meets the diverse student needs in higher education contexts. This study adds to the literature base about community college student success and how it is connected with students' perceptions of faculty behaviors and classroom motivators. Also, it contributes to the empirical work to the limited amount of research currently available on the Dominican higher education context.

ACKNOWLEDGEMENTS

This research piece would not have been possible without the support of all taxpayers from the Dominican Republic and the faculty and staff from Western Michigan University. I want to extend sincere thanks to my Dissertation Committee, Dr. Bierlein-Palmer, Dr. Shen, and Dr. Keck for their questions, suggestions, and contributions for improving this work. I express my deepest gratitude to Dr. Bierlein-Palmer, my Dissertation Chair, who worked actively to provide the most exceptional support, and encouragement to pursue this project.

I am also grateful to all with whom I have had the pleasure to work during this journey. I am incredibly grateful to my beloved and closest colleagues for all their collaboration throughout this journey; their unconditional support and understanding was a determining factor in achieving this goal.

Nobody has been more important to me in the pursuit of this project than the members of my family. I want to thank my parents; whose love and righteousness accompany me in everything I pursue. I cannot finish without thanking and recognizing with total admiration two extraordinary women with whom I share the exciting, beautiful, and demanding work of raising happy and good children; they have always provided extraordinary support in completing this research study. Most importantly, I wish to thank my three wonderful children: Edmund, Aidan, and Victoria, who provide unending inspiration.

I would never forget it. Thank you!

Víctor A. Henry Ubiera.

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CHAPTER I

INTRODUCTION

The low rate of completion in higher education institutions is an issue that concerns both researchers and educational organizations in many countries (Apolinar, 2013; Kolodner, 2015). This is true for both universities offering bachelor's degree and community colleges. In the United States (US), for example, about 40% of students enrolled in a traditional four-year colleges do not complete their degrees within six years (National Center for Education Statistics [NCES], 2015), and only 25% of those enrolling in a community college complete a degree within three years (American Association of Community Colleges [AACC], 2018). In the Dominican Republic (DR), which is the country of interest for this study, about half of all students who enroll in a public or private university graduate. Breaking out this statistic by institution type reveals that only about 20% of those in DR public higher education institutions complete a degree (Organization for Economic Co-operation and Development [OECD], 2012), including those within the DR's first public community college, the Instituto Técnico Superior Comunitario (*Technical Superior Communitarian Institute* [ITSC]) (E. Salazar, personal communication). While these graduation rates are dismal, in a country like the DR, those who have graduated from its first and only community college can still be considered as taking a small step forward. Without this community college, most of these students would likely not have completed any higher education at all. Therefore, a 20% graduation rate may be viewed as a minor success for the ITSC, but it also demonstrates that work is needed to ensure greater success rates for all students.

So, what can be learned from successful ITSC students? In other countries, much research has explored factors that impact college completion rates and student success. Among

others, one key factor is the role that faculty play in their connection with students (Kezar & Maxey, 2012). However, given the newness of the community college in the DR, no knowledge exists in the Dominican context about how this or other factors impact students' success. My research study sought to collect data on students' perceptions of faculty behaviors and classroom motivators, and any connection with their success in the community college.

Background

A community college is a public or private non-profit institution regionally accredited to award the associates degree as its highest degree (Cohen, Brawer, & Kisker, 2014). Community colleges are two-year higher education institutions that account for almost 40% of all undergraduate enrollment in the US (AACC, 2018; Bok, 2013). Community colleges started in the 20th century and were developed to provide an open enrollment and lower-cost schooling alternative to a university degree for people with lower academic or economic backgrounds seeking access to higher education (Bok, 2013; Cohen et al., 2014; Mellow & Heelan, 2014).

Community colleges often serve a diverse population that usually includes many first-generation college students from minority groups and low-income families (AACC, 2018). Since the mission of community colleges is to offer higher education opportunities at a fraction of the cost to individuals whose life circumstances may not allow them to attend a four-year college, students who attend community colleges tend to be considered non-traditional (NCES, 2014). Such students are those who regularly have to support and take care of their family, have work responsibilities and other issues that can jeopardize their goal of successfully completing their educational aims (AACC, n.d.; NCES, 2014, para. 1).

The DR recently developed a community college model adapted from the models of community colleges in the United States (Alliance & Matthews, 2012). The ITSC, the first

community college in the DR, was founded in 2012 and officially opened its doors for students in 2013 (*Presidencia de la República Dominicana* [DR Government], 2012). The college is located in a densely populated area of Santo Domingo, the capital of the country, and serves mostly non-traditional students. The ITSC offers 27 associate degree programs in the areas of information technologies, health, arts, industrial, electro-mechanics, tourism, and construction, and enrolls more than 5,000 students from Santo Domingo and the surrounding provinces.

As the ITSC is the only institution of its kind in the DR, its faculty have little or no experience teaching in a community college environment. The faculty hired to teach in this new educational model in the country come from other established educational institutions such as K-12 schools, vocational institutions, universities, specialized institutes, and technical institutes. Even though there are some similarities among vocational institutions and specialized and technical institutes, the differences in the Dominican educational system are clear. For instance, vocational institutions develop individuals in specific skills and are not really considered higher education institutions in the DR. Specialized and technical institutes offer higher education degrees, some of them in two-year programs (MESCYT, 2015), but are not aligned with the mission and common characteristics of community colleges like equity, social justice, open enrollment, and low-tuition. Therefore, faculty at ITSC are composed of a diverse group of colleagues who have had different teaching experiences and training, and who may have different perspectives and strategies that may play an influential role on the way they teach (Oleson & Hora, 2014) and interact with the many lower income, first generation, higher education students found in a community college. Until now, the ITSC has not established a teacher training program that works on a regular and permanent basis.

Problem Statement

In the DR just 15.4% of students who enter in the education system enroll in a higher education institution, and 53% of undergraduate students drop out before graduation (Apolinar, 2013). Likewise, nearly 52% of students who enroll at the ITSC community college drop out in their first year, and just 20% complete their program in the scheduled time of two-and-a-half years (E. Salazar, Personal communication, June 2018). Student attrition in higher education has long been a concern, and researchers have studied this issue to describe and understand the causes of student dropouts around the world. Several studies have revealed that the factors with the greatest influence on student attrition in college being lack of motivation and low self-esteem (Cherif, Movahedzadeh, Adams, & Dunning, 2013; Demetriou & Schmitz-Sciborski, 2011), with levels of motivation acting as a driving force behind the actions of individuals and a determinant of their success or failure (Rabideau, 2005).

Researchable Problem

Several decades of research have revealed many variables that influence retention in college students, including academic and social engagement. Faculty-student interaction has emerged as a constant predictive variable of such engagement (Demetriou & Schmitz-Sciborski, 2011), and as a critical factor for student success (Kezar & Maxey, 2014). But it is not just the interaction itself that counts. The behavior of faculty inside and outside the classroom is what can positively or negatively impact student learning, development, and persistence (Heng, 2014; Pascarella, Seifert, & Whitt, 2008). While these studies are suggestive, not enough is known about the behaviors of community college faculty that are needed to foster their students' interest and motivation in their educational programs (Alexander, Karvonen, Ulrich, Davis, & Wade,

2012). This is especially true for a country like the DR whose community college faculty had never taught in a community college setting prior to the start of the ITSC.

Studies Addressing the Problem

There is an active body of inquiry on community college and university students' success, with research focused on understanding community college students' persistence and how those colleges can retain more students through to degree completion. According to Hawley and Harris (2005), "theories on student development in community college education are paramount for researching and discussing issues of persistence and retention for first-year students" (p. 120), noting that student success depends on their level of social and academic integration in the academic community. To that end, Hawley and Harris conducted a study to determine negative and positive factors that impacted first-year students' persistence at Prince George's Community College in Maryland and found that students who are not focused on their educational goals are more likely to drop out of college.

Some studies demonstrate that motivation is an element student report as a key factor to achieve success in college (Cherif et al., 2013; Demetriou & Schmitz-Sciborski, 2011; Martin, Galentino, & Towsend, 2014; Polinsky, 2003). For example, Cherif et al. (2013) surveyed students from two-year and four-year colleges and found that 35% of respondents mentioned motivation and related issues as the cause of why students fail. Likewise, 10% of participants mentioned instruction and related issues as key success factors. The authors concluded that academic success depends not only on the students' cognitive abilities, but also on whether students are motivated to learn, because those students who work hard make faster gains and learn better than those students who are bright but less motivated (Blue, 2012). Similarly, Martin

et al. (2014) found in a study with community college students that those who persisted had a strong motivation to be successful.

As previously noted, student-faculty interaction has also been found to be an important part of student persistence, contributing "to students' aspirations, promoting student engagement and a passion for learning, increasing motivation to learn, boosting academic self-confidence, and providing validation for students" (Kezar & Maxey, 2014, p. 32). The quality of teaching is one of the major factors, and teachers who are committed to teaching are well valued and in high demand (Sprouse, Ebbers, & King, 2008).

Literature Deficiency Statement

Although there is a deep literature base regarding the characteristics of effective college faculty, the behaviors that college faculty need to teach effectively and positively influence student motivation "have not yet been defined with any level of specificity" (Alexander et al., 2012, p. 849). This means that despite the important role that faculty play in motivating students to persist, there exists a lack of clarity about the specific effective behaviors that community college faculty in particular need to display in order to foster interest and motivation in students.

Moreover, the concept of the community college model is new in the DR educational system, and the faculty and other staff have little experience with teaching or may need more explanation on how best to teach the lower-income, first-generation college students who commonly attend this kind of higher educational institution. Therefore, a line of inquiry is required to better understand how the students of this fairly new community college in the DR perceive the behaviors of faculty, and how those behaviors are related to their opinions about their interest in and usefulness of their coursework, as well as their perceived success.

Significance of Study

Knowing which faculty behaviors community college students are exposed to, and which of these are related to students' classroom motivators, intent to persist, and grade point average (GPA), will be beneficial for any higher education faculty development program. Additionally, faculty at community colleges might find these findings useful as they learn about the effect of their behaviors on students' success and could help them to design teaching strategies for improving their practice. Such knowledge might contribute to increased student completion rates, student engagement, persistence, and performance.

This study expands the literature base about community college student success and how it is connected with the students' perception of faculty behaviors and classroom motivators. Results also contribute to the empirical work to the limited amount of research currently available on the Dominican higher education context.

Purpose Statement and Research Questions

The purpose of my study was to explore how students from the first and only Dominican community college perceive certain faculty behaviors and classroom motivators, and how the perception of those behaviors and motivators are related to students' academic success. Student academic success was defined as their GPA and their intent to persist until graduation.

The research questions that guided my study include:

1. To what extent do community college students who are about to graduate indicate the presence of various faculty behaviors and classroom motivators?
2. What differences in these findings exist as broken down by age, gender, and academic areas within this community college?

3. What kind of relationship, if any, exist between the students' perceptions of certain faculty behaviors and classroom motivators?
4. To what extent can the perceived presence of such behaviors and the perceived level of classroom motivators be used to predict students' GPA and intent to persist?

Conceptual Framework

There is a marked interest in the issues that lead to higher education student success, and some of the factors students mention are their relationship with faculty and their motivation. Hence, this study sought to understand how the student perceptions of *faculty behaviors* influence student levels of *classroom motivators,* and how those are connected to *student success*, as defined by student GPA over 2.8 and their intent to persist until degree completion in a community college in the DR. Figure 1 offers a conceptual framework that guided my study and depicts the issues of interest.

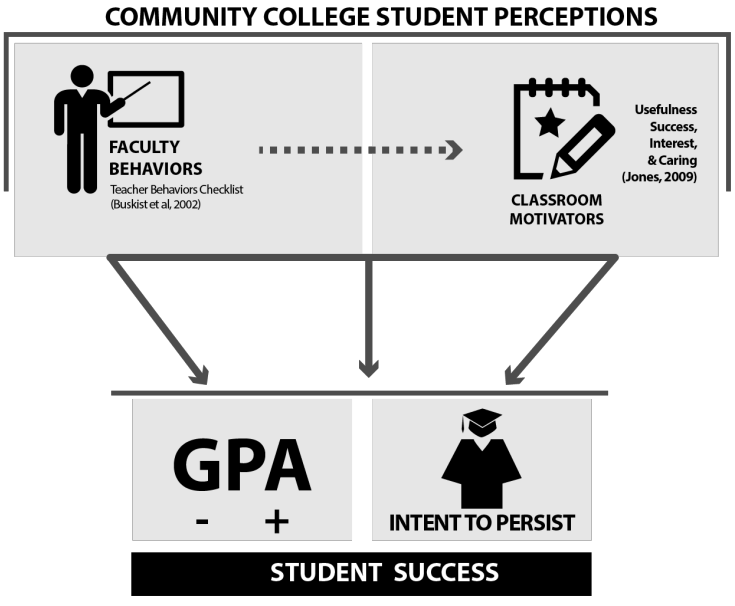


Figure 1. Diagram of the study conceptual framework (Henry, 2020).

Underlaying my conceptual framework is research that has revealed that faculty-student interactions impact student motivation and persistence (Kezar & Maxey, 2014; Martin et al., 2014), and that faculty behaviors shape such interactions. For instance, Lundberg, Kim, Andrade, and Bahner (2018) found that when students perceive the behavior of their faculty as accessible, available, helpful, and sympathetic, positive results in student learning occurred. For this study, I focused on students' perceptions about various faculty qualities as reflected by their behaviors and how this can influence students' levels of classroom motivators and how students' perceptions of those behaviors and motivators are related to students' success, measured by their intention to persist in college and GPA.

The faculty behaviors list considered in my study was created by Buskist, Sikorski, Buckley, and Saville (2002) after conducting a two-phase research study to identify the behaviors and qualities of master teachers; they call this list the Teacher Behaviors Checklist (TBC). Buskist et al.'s study involved 294 undergraduate students. In the first phase asked 114 to list at least three characteristics they believed were essential to an individual being a master teacher in higher education, resulting in a list of 47 characteristics. Then, in the second phase of the study asked 184 students to share three specific behaviors that reflect those qualities and characteristics in their faculty. Resulting in a list of 28 qualities and the corresponding behaviors according to students' perceptions. These 28 faculty qualities with their corresponding behaviors served as independent variables for my study. Table 1 shows each quality and behaviors examples that students could easily identify (see Table 1).

Table 1

Faculty Qualities and the Corresponding Behaviors (Buskist et al., 2002)

Quality	Corresponding Behaviors
Accessible	Posts office hours, gives out phone number, and e-mail information.
Approachable / Personable	Smiles, greets students, initiates conversations, invites questions, responds respectfully to student comments.
Authoritative	Establishes clear course rules; maintains classroom order; speaks in a loud, strong voice.
Confident	Speaks clearly, makes eye contact, and answers questions correctly
Creative and Interesting	Experiments with teaching methods; uses technological devices to support and enhance lectures; uses interesting, relevant, and personal examples; not monotone.
Effective Communicator	Speaks clearly/loudly; uses precise English; gives clear, compelling examples.
Encourages and Cares for Students	Provides praise for good student work, helps students who need it, offers bonus points and extra credit, and knows student names.
Enthusiastic about Teaching and about Topic	Smiles during class, prepares interesting class activities, uses gestures and expressions of emotion to emphasize important points, and arrives on time for class.
Establishes Daily and Academic Term Goals	Prepares/follows the syllabus and has goals for each class.
Flexible / Open-Minded	Changes calendar of course events when necessary, will meet at hours outside of office hours, pays attention to students when they state their opinions, accepts criticism from others, and allows students to do make-up work when appropriate
Good Listener	Doesn't interrupt students while they are talking, maintains eye contact, and asks questions about points that students are making.
Happy/Positive Attitude/Humorous	Tells jokes and funny stories, laughs with students.
Humble	Admits mistakes, never brags, and doesn't take credit for others' successes.
Knowledgeable About Subject Matter	Easily answers students' questions, does not read straight from the book or notes, and uses clear and understandable examples.
Prepared	Brings necessary materials to class, is never late for class, provides outlines of class discussion.
Presents Current Information	Relates topic to current, real-life situations; uses recent videos, magazines, and newspapers to demonstrate points; talks about current topics; uses new or recent texts.
Professional	Dresses nicely [neat and clean shoes, slacks, blouses, dresses, shirts, ties] and no profanity.
Promotes Class Discussion	Asks controversial or challenging questions during class, gives points for class participation, involves students in group activities during class.
Promotes Critical Thinking / Intellectually Stimulating	Asks thoughtful questions during class, uses essay questions on tests and quizzes, assigns homework, and holds group discussions/activities.
Provides Constructive Feedback	Writes comments on returned work, answers students' questions, and gives advice on test-taking.
Punctuality / Manages Class Time	Arrives to class on time/early, dismisses class on time, presents relevant materials in class, leaves time for questions, keeps appointments, returns work in a timely way.
Rapport	Makes class laugh through jokes and funny stories, initiates and maintains class discussions, knows student names, interacts with students before and after class.
Realistic Expectations of Students / Fair Testing and Grading	Covers material to be tested during class, writes relevant test questions, does not overload students with reading, teaches at an appropriate level for the majority of students in the course, curves grades when appropriate.
Respectful	Does not humiliate or embarrass students in class, is polite to students [says thank you and please, etc.], does not interrupt students while they are talking, does not talk down to students.
Sensitive and Persistent	Makes sure students understand material before moving to new material, holds extra study sessions, repeats information when necessary, asks questions to check student understandings.
Strives to Be a Better Teacher	Requests feedback on his/her teaching ability from students, continues learning [attends workshops, etc. on teaching], and uses new teaching methods)
Technologically Competent	Knows how to use a computer, knows how to use e-mail with students, knows how to use overheads during class, has a Web page for classes.
Understanding	Accepts legitimate excuses for missing class or coursework, is available before/after class to answer questions, does not lose temper at students, takes extra time to discuss difficult concepts

Turning now to the next major aspect of my study, scholars have been interested in what factors can predict and influence *students' motivation* at all levels, which in turn is connected to student achievement and success. For the purpose of my study I used the MUSIC® model of academic motivation developed by Jones (2009), which is based on research and theories of motivation. The model consists of five components: (a) eMpowerment, (b) Usefulness, (c) Success, (d) Interest, and (e) Caring, with the term MUSIC representing one letter from each construct (see Table 2). Likewise, Jones (2017) developed an instrument (the MUSIC® Inventory) for measure each component of the model in different educational settings which also has been translated in several languages.

Table 2

Definitions of the MUSIC Model Components and Related Constructs (Jones & Skagg, 2016)

Component	The degree to which a student perceives that:	Related constructs[1]
eMpowerment	He or she has control of his or her learning environment in the course	▪ *Autonomy*
Usefulness*	The coursework is useful to his or her future	▪ *Utility value* ▪ Instrumentality
Success*	He or she can succeed at the coursework	▪ *Expectancy for success* ▪ Self-efficacy ▪ Competence
Interest*	The instructional methods and coursework are interesting	▪ *Situational interest* ▪ Intrinsic motivation ▪ Intrinsic interest value ▪ Flow
Caring*	The instructor cares about whether the student succeeds in the coursework and cares about the student's well-being	▪ *Caring* ▪ Belongingness ▪ Relatedness ▪ Attachment

Note. [1]Items in the MUSIC® Inventory were designed to measure the constructs in italics, although the other constructs listed are closely related. *Most appropriate for DR community college setting.

Table 2 shows the definition and related constructs for each component of the current MUSIC® model for academic motivation (Jones & Skagg, 2016). The model synthetizes theories and research within and outside higher education with the purpose of being considered by instructors designing courses that foster academic motivation. According to Jones, each component of the model can be used separately but together to "produce higher levels of motivation than when implemented alone" (p. 273).

For the purpose of my study in a community college setting, I used four of the five constructs to assess students' perception of classroom motivator (*Usefulness*, *Success*, *Interest*, and *Caring*). eMpowerment was not used since students' control or empowerment over their learning environment within a given course does not fit with the DR community college context. These *classroom motivators* constructs were treated as both as independents and dependents variables. My other dependent variables were students' GPA and their intent to persist until graduation. More detail on these constructs and related research will be covered in Chapter 2.

Methods Overview

This study sought to collect information from all students nearing graduation from the Dominican community college using an electronic survey as an instrument. For this study, students nearing graduation were those who have completed at least 75% of the credits of their program and are enrolled in the semester that data is collected; this was estimated to be about 900 students. I used several regression models to determine to what extent variables of faculty behaviors, and classroom motivators had a significant impact on the students' GPA and their intent to persist in college.

Chapter 1 Closure

Given the high rates of student dropouts in higher education, the money from taxpayers invested by governments in community colleges to offer low-cost postsecondary education, and the fundamental role of faculty in student persistence, it is of significant importance to explore how factors related to students' perceptions of faculty behaviors and classroom motivators may influence student success. The data collected through a survey of community college students determining how often they perceive certain faculty behaviors and their levels on various classroom motivators, provide useful information to understand to what extent the behavior of faculty influences the intent to persist and the performance of community college students.

Chapter 2 frame this study through the review of the literature understanding what is known about community colleges, factors that are related to student success, faculty, faculty behaviors, and classroom motivators (constructs related to classroom motivators such as utility value, expectancy for success, and situational interest). Chapter 3 clearly describes the methods used to understand these constructs. Chapter 4 review the data collected through the survey method, while Chapter 5 provide discussion, connections to the existing literature on the topic, recommendations to higher education institutions, and suggestions for future research.

CHAPTER II

LITERATURE REVIEW

Student success is one of the main goals in community colleges and other higher education institution and, such has garnered a great interest of researchers. In particular, studies have shown that faculty play a key role in student success and that a strong correlation exists between faculty-student interaction, student motivation, and student success (Cherif et al., 2013; Demetriou & Schmitz-Sciborski, 2011; Kezar & Maxey, 2014; Martin et al., 2014; Polinsky, 2003). Given that the aim of my study was to shed light on which faculty behaviors impact academic motivation, student success, and intent to persist in college until completion, the purpose of this literature review is to describe and understand how faculty behaviors at higher education institutions especially in community colleges, impact students learning, integration, persistence, achievement, and motivation, among other factors related to student success. This chapter also discuss the research regarding the influence of several motivational constructs in student success.

General Overview of Community Colleges

A community college is a public or private non-profit institution regionally accredited to award the associate degree as its highest degree (Cohen et al., 2014). In the United States, community colleges account for 45% of all undergraduate enrollments (AACC, 2018). These institutions started in the early years of the 20th century and were designed to provide lower cost schooling for students who wanted to later transfer to a four-year college. These community colleges offer economically disadvantaged and academically underprepared students the opportunity to either start a career that fulfills the local need for skilled workers or to pursue a bachelor's degree that they otherwise would not be able to complete (Alexander et al., 2012;

Martin et al., 2014). The role of the community college is to pave the way for people to be economically viable, to contribute to society as a whole, and to move away from poverty and inequality continues to be a major emphasis and responsibility (Heelan & Mellow, 2017).

Community colleges represent an opportunity for people with different backgrounds or non-traditional students to gain a college education (Bok, 2013; Cohen et al., 2014). According to the AACC (2018), community colleges serve diverse populations that are usually minorities, low socio-economic status, first generation college students, and non-traditional students. There is no single definition for non-traditional students; however, it generally refers to a "heterogeneous population of adult students who often have family and work responsibilities as well as other life circumstances that can interfere with successful completion of educational objectives" (NCES, 2014, para. 1). Non-traditional students continue to be the rule rather than the exception at community colleges and the percentage of non-traditional students enrolled at community colleges continues to increase (Topper & Powers, 2013).

Bess and Dee (2012) explained how the movement for vocational education in the U.S. shifted the curriculum toward programs that provided training in the skills and knowledge required to carry out particular job roles. This movement gave community-college level programs social value for the practical education that provided a steady supply of employees. For some, this implied inequality in the education because community college graduates were not educated but trained, and they lacked broad competencies to help them adapt to the demands of other job structure.

Community College in the Dominican Republic

The DR has a national higher education system, regulated by the Ministry of Higher Education, Science and Technology (MESCYT, as abbreviated from its Spanish name) based on

the law 139-01. The higher education law establishes three types of public or private higher education institutions: (a) Superior Technical Institutes, which offer two-year academic programs with a level of associate degree, (b) Specialized Institutes of Higher Studies which offer undergraduate and postgraduate degrees in specialized areas such as education, military, and agriculture, and (c) Universities which offer associate, graduate, and postgraduate degree programs (OECD, 2008). In 2012, the DR had four Superior Technical Institutes, that were holding 0.26% of all students' enrollments in higher education (MESCYT, 2015). In 2013, the government of the country started the implementation of the first community college in the country, based on the community colleges in the U.S. (Alliance & Matthews, 2012).

The ITSC is the first community college in the DR and was built in a suburban area of Santo Domingo, the capital of the country. This effort to promote the superior technical education began in 2004 with the announcement of the foundation of this community college with the purpose to support the development of the local business sector (ITSC, 2012). Likewise, ITSC was an early response to the recommendation of "diversify the structure of higher education provision [and] (…) the development of two-year community colleges focusing on work-relevant and work-based learning" (OECD, 2012, pp. 22-23). ITSC is a part of the DR strategy that seeks to provide better opportunities of employment, especially for impoverished communities.

The ITSC is a public and government-funded Superior Technical Institute that offers 26 associate degrees, in information technologies, manufacturing, tourism, health, computer science, arts, mechanics, engineering and other arising careers as society demand. This community college differs from the other four institutions in its category in the DR in that it offers open admission, lower cost, and a counselling department that support their student-centered approach. ITSC was conceived to provide

higher education programs to serve vulnerable communities or individuals, as a democratic manifestation of equity and social justice, the most common statement of the community college mission in the U.S. (Vaughan, 2006).

At ITSC, the objectives are to strengthen equity, expanding training opportunities to the excluded young by socio-economic constraints to involve them with the possibility of success. The institution works to develop young people at the higher technical level with skills to enter the workforce in a short time, contributing to the development of the productive sectors and the opportunity to gain access to higher socioeconomics levels. The ITSC, as most community colleges, offers an open doors policy as in the U.S. The DR is looking to satisfy the social need for workers to operate the expanding industries and services and the drive for social equity motivated the promotion of this type of institution (Cohen et al., 2014; ITSC, 2012).

As indicated in the statutes organic, the ITSC legal body is based on Article 63 of the DR's Constitution and in the law 139-01 that governs the national system of higher education, in the letter of section 24, which says: "technical higher education institutions: are those authorized to teach career at higher technical level."

Higher Education Faculty

The faculty embody the central operating core of community colleges, constituting an important occupational group in the U.S.; yet in spite of their relevance in the post-secondary education, more research is needed to know about their professional and social identities, as well as their work and instructional outcomes (Levin, 2018). Usually, studies about the faculty in higher education have focused on those working at universities. Although teaching is the primary activity for faculty at all post-secondary education institutions, faculty at community college differ from their counterparts at universities in several areas, such as degree level, type of

contract, and career-focused programs (Levin, Kater, & Wagoner, 2011). Those differences, plus the diversity of the students community college serve, results in a complex teaching process at a community college in comparison to other areas in higher education (Alexander et al., 2012).

Faculty Qualities and Behaviors

Faculty in undergraduate education play a fundamental role for achieving the purposes of academic institutions and students. That is why educational stakeholders, scholars, and researchers show interest in seeking good practices and identifying the qualities for good teaching. However, it seems that just a list of faculty characteristics or qualities is not very helpful for faculty practice, given a "significant ambiguity in research (…) in the work defining the characteristics of effective teachers" (Khandelwal, 2009, p. 299). Improved teaching needs more than a list of characteristics, it requires more discussion about the actual behaviors and how to enact those qualities (Buskist & Keeley, 2018; Khandelwal, 2009).

Knowing that fact, researchers have attempted to identify those behaviors related to the qualities and characteristics of good teaching practice. For instance, Khandelwal (2009) conducted a study with the purpose of identifying specific behaviors that embody faculty qualities, such as rapport and good presentation which are present in most literature about high quality teaching. The sample in Khandelwal's qualitative study were 60 female students from a women's college in University of Delhi, who were asked to log real incidents of their faculty members, describing the precise behavior demonstrated by the teacher instead of simply traits. Then, participants were interviewed for seeking clarification of the 237 incidents collected. After two rounds of analysis the incidents were sorted into six categories that provide the most important behavioral dimensions of faculty practice: (1) rapport with students, (2) course preparation and delivery, (3) encouragement, (4) fairness, (5) spending time with students

outside of class, and (6) control. Table 3 presents the categories that arose from Khandelwal's study and what each of the six dimensions refers to, aligned with the 28 qualities and behaviors developed by Buskits et al. (2002).

Table 3

Khandelwal's (2009) Categories of Faculty Behavioral Dimensions Aligned with Buskits et al.'s (2002) TBC

Category	Refers to	Teacher Quality (Buskist et al., 2002)
Rapport with Students	"A harmonious relationship between faculty and students (…) beyond the contractual relationship" (p. 302).	Rapport; Happy/Positive Attitude/Humorous; Approachable / Personable; Accessible; Confident; Understanding
Course Preparation and Delivery	"Presentation style and the manner in which information is delivered in the classroom setting" (p. 302).	Enthusiastic about Teaching and about Topic; Effective Communicator; Prepared; Present current information; Knowledgeable about subject manner; Provides Constructive Feedback; Strives to Be a Better Teacher; Creative and Interesting; Technologically Competent
Encouragement	"Providing support, confidence, or hope to the student(s). It implies recognition of heterogeneity in the class and responding to it appropriately, whether motivating slow learners or challenging the brighter ones into exploring their potential" (p. 303).	Promotes Critical Thinking / Intellectually Stimulating; Encourages and Cares for Students; Promotes Class Discussion
Fairness	"Behavior by the teacher that is just or appropriate in the circumstances (…) treating students equally and not having personal biases of favorites" (p. 304)	Respectful; Professional; Realistic Expectations of Students / Fair Testing and Grading; Sensitive and Persistence; Humble; Good Listener
Time Spent with Students Outside of Class	"Focused on availability, giving time despite hectic schedules" (p. 304), that dimension include that faculty give their personal phone number, email id, and responding quickly.	Flexible / Open-Minded; Understanding; Approachable / Personable; Accessible; Sensitive and Persistence; Rapport
Control	"The ability to maintain discipline and decorum in the classroom. Balance on the continuum between a laissez-faire approach to classroom management and an excessively strict, micromanaged environment is preferable" (p. 305).	Authoritative; Establishes Daily and Academic Term Goals; Punctuality / Manages Class Time; Effective Communicator

Given the importance of the behaviors and qualities of the faculty, researchers have investigated those behaviors in relationship to student outcomes and one line of inquiry is to ascertain the behaviors faculty and students perceive as most important for achieving teaching excellence; several have used the 28 item Teacher Behavior Checklist (TBC). For example,

Ford's (2016) study used the TBC survey with 211 pharmacy faculty and 213 students from four universities in the US. Faculty identified the following 10 qualities/behaviors as *essential* for pharmacy faculty: knowledgeable (77.7%), enthusiastic (69.7%), promotes critical thinking/intellectually stimulating (69.7%), effective communicator (65.9%), strives to be a better teacher (65.4%), approachable/personable (60.7%), prepared (49.8%), respectful (48.3%), confident (45%), and creative and interesting (42.7%). Students noted that knowledgeable (74.6%), effective communicator (71.4%), realistic expectation of students/fair testing and grading (70.4%), approachable/personable (70%), enthusiastic (56.3%), respectful (50.7%), confident (47.4%), encourages and cares for students (47.4%), understanding (45.1%), and accessible (42.7%) as the top 10 qualities/behaviors for *excellent* pharmacy faculty. Faculty and students agree on six of the top 10 selected as an essential quality for excellent teaching: (a) approachable/personable, (b) confident, (c) effective communicator, (d) enthusiastic, (e) knowledgeable, and (f) respectful.

In another study that used the TBC, Ripoll-Nuñez, Mojica-Ospina, Torres-Riveros, and Castellanos-Tous (2018) studied 120 faculty and 1,199 undergraduate students from nine institutions in Colombia. Results indicate that these students and faculty both selected the following four qualities as *essential* for excellent teachers: (a) respectful, (b) effective communicator, (c) confident, and (d) knowledgeable. In addition, Ripoll-Nuñez et al.'s study found that faculty and students were in agreement with seven of the top 10 teachers' qualities of an *excellent* teacher: (a) respectful, (b) effective communicator, (c) confident, (d) good listener, (e) knowledgeable, (f) enthusiastic, and (g) providing constructive feedback.

Some researchers used other tools to study faculty behaviors. For example, Lancaster and Lundberg (2019) recently studied how faculty behaviors and course decisions predict learning

gains for students in the domains of academic learning, career learning, and personal development. Lancaster and Lundberg's study involved 836 students from a community college in California who completed the Community College Survey of Student Engagement (CCSSE) regarding their overall faculty; from 16 significant predictors, several related to faculty were strong predictors of learning: (a) discussed career plans with an instructor, (b) worked harder to meet expectations of an instructor, and (c) the quality of the student's relationship with the instructors. However, the quality of student-faculty relationship measured by students' sense that their faculty were available, helpful, and sympathetic, was the strongest of all predictors for the three learning domains measured.

Students also perceive some faculty behaviors as essential qualities for excellent professors. That was reflected in a study conducted by Woods, Badzinski, Fritz, and Yeates (2012) who surveyed 451 undergraduate students at a Christian university with the purpose of gathering students' perceptions of their ideal professor. Results indicated that students perceive excellent faculty as those who are flexible, maintain high academic standards, encourage students, and have an adaptive teaching style. Similarly, Lundberg et al. (2018) identified behaviors of faculty that predict student learning and found a quality relationship with faculty predicts positive results in student learning regarding general education, personal development, and career preparation. According to the responses, students perceive that faculty who are accessible, approachable, and hold high expectations, help increase student learning gains. The sample for Lunderberg et al.'s study consisted of 10,071 students from 108 community colleges in the U.S. who completed the CCSSE.

Rapport between students and faculty also positively influences students' attitudes toward faculty and courses, student motivation, and student perceived learning. For example, Wilson

and Ryan's (2013) study of 192 undergraduate students revealed that faculty-student rapport accounted for 41% of the students' general attitude toward the course, 39% and 28% of students' perceived motivation and amount learned respectively, and 18% of the final grades in the course. As another example, Lammers, Gillaspy, and Hancock's (2017) study measured student–instructor rapport at three points during a semester to determine to what extent rapport can predict the final course grade. Results showed that those students who reported a stable or an increasing level of student-faculty rapport earned higher grades than those who showed a decreasing pattern. The data analyzed was from 101 undergraduate students within five different courses at a mid-South public university who were asked to report their perceived rapport with faculty at three different times through the semester. In another study, Addison, Stowell, and Reab (2015) analyzed students' comments from RateMyProfessors.com, a website were students provide ratings of their professors. The comments collected were from 179 higher education institutions regarding introductory psychology and statistics classes. A total of 14,397 comments were included in the analysis, revealing that rapport-related attributes of faculty are viewed as more important than skills-related attributes.

The Effect of Student-Faculty Interaction

The faculty in higher education institutions are often the focus of research, and one emerging theme is the effect of the faculty-student interaction on student outcomes, persistence, and motivation; the relevance of such interactions is implicitly recognized by higher education stakeholders such as employees, academic staff, and students (Beerkens & Udam, 2017). This is supported by Hagenauer and Volet's (2014) literature review of studies on faculty-student interactions or teacher-student relationships, published between 1997 and 2012, which found that faculty student interactions affect teachers in the adoption of particular teaching practices, which

in turn impacts teaching quality. For instance, Zerquera, Ziskin, and Torres's (2016) qualitative study involving 33 faculty members from three higher education institutions in the U.S., revealed that faculty members recognize faculty-student interactions are a vital aspect of the higher education experience and such connections are helpful and effective. Faculty members are aware of the "importance to their practice of flexible adaptability in connecting with and supporting students" (p. 10). Various faculty members identify a clear relationship between faculty and students' success in the classroom and after graduation.

Interaction not only impacts faculty practice, but research also reflects how the interaction between faculty and students impacts students in their learning (Lundberg, 2014; Umbach & Wawrzynski, 2005; Wirt & Jaeger, 2014), engagement (Meyer, 2014; Umbach & Wawrzynski, 2005), academic motivation (Chemosite & Rugutt, 2009; Komarraju, Musulkin, & Bhattacharya, 2010; Trolian, Jach, Hanson, & Pascarella, 2016), persistence (Dwyer, 2017; Nakajima, Dembo, & Mossler, 2012; Tovar, 2015; Trolian et al., 2016), and integration (McKay & Estrella, 2008). Let us look at these research studies in more detail.

Some studies revealed how faculty-student interaction impacts student learning. For example, Lundberg (2014) found that frequent interaction with faculty inside and outside the classroom was the strongest predictor of self-reported learning in five learning outcomes: (a) general education, (b) intellectual skills, (c) science and technology, (d) personal development, and (e) career preparation. Lundberg's study was conducted using the Community College Student Experiences Questionnaire as an instrument, and results arose from the responses of 239 students distributed across 12 community colleges from urban (n=86), rural (n=23), and suburban (n=120) areas in California, U.S.

Other studies have also found that faculty-student interactions have a positive relationship with students' grade point average (GPA). For example, Wirt and Jaeger (2014) conducted a nonexperimental study to explore which student variables predict faculty-student interactions. They used variables from the Community College Student Report, a survey that collected data about the processes, institutional practices, and student behaviors related to community college student engagement. The participants for this study were composed of 2,820 observations randomly selected from a population of 1,990,347 community college students, as drawn from 279 colleges in 40 U.S. states, one college in British Columbia, and one in the Marshall Islands as obtained from the 2007 survey records. The researchers found that students with higher GPAs were more likely to be engaged interacting with faculty. Not surprisingly a positive inverse relationship also was found in the study, with students who frequently interacted with faculty being more likely to have higher GPAs.

Likewise, Umbach and Wawrzynski (2005) conducted a study with the purpose of exploring the context created by faculty and their practice on campus and its connection to student self-reported gains, perceptions of environment, and engagement. The researchers used two national data sets: (a) the National Survey of Student Engagement (NSSE) and (b) a parallel study from the NSSE that addressed attitudes and behaviors of faculty. Umbach and Wawrzynski found that the educational context of faculty interacting with students using active and collaborative learning techniques positively impacts student learning. The respondents consisted of 20,226 senior college students and 22,033 first-year college students who completed the NSSE in the first semester of 2003 at the 137 higher education schools. A parallel study examined the attitudes and behaviors of 14,336 faculty at institutions participating in NSSE.

Other studies have revealed that faculty-student interaction result in better student engagement. Umbach and Wawrzynski's (2005) study, as described in the previous paragraph, also found enhanced facutly-student interaction positively related to student engagement. As another example, Meyer's (2014) study sought to understand how faculty members at community colleges improve student learning productivity in their online classes. The participants of this qualitative study were 11 faculty members from 11 different public community colleges within eight different U.S. states. Meyer's study found three big themes which include several subthemes about how faculty believed they improved student learning: increasing student engagement, providing structure, and assessing learning. Two of the seven subthemes that came up about increasing student engagement related to participation with faculty; all the participants mentioned the importance of the faculty-student interaction and communication using several methods like phone calls, e-mail, and texting. In sum, Meyer's findings suggest that "faculty can and do find ways to use different tools in different ways to improve student learning" (p. 575).

Students' academic motivation also has been found by previous research to be related to faculty-student interactions. For instance, Chemosite and Rugutt (2009) surveyed 2,190 students at one large Southern university in the U.S. and found that faculty-student interaction is a statistically significant predictor of student motivation, above all other variables measured in this study such as critical thinking and student-to-student relations. This study revealed that faculty-student interactions account for 40.7% of variance in student motivation.

In a more recent study, Trolian et al. (2016) also found that several types of faculty-student interaction positively impact student' academic motivation when considered as separate variables. The quality and frequency of contact with faculty, research with faculty, personal

discussion with faculty, and interactions with faculty outside of the class, were all positively associated with academic motivation. When all these variables were considered, it explained 33% of the variance in students' academic motivation, with quality and frequency of contact with faculty statistically significant. Trolian et al. examined the changes in student's reported levels of academic motivation between their first year of college in 2006, and at the end of their fourth year of college in 2010. The data for this study was gathered from the Wabash National Study (WNS), a longitudinal, multi-institutional study of college outcomes that sampled undergraduate students from 17 universities across the US. The researchers purposely selected the data from 11 liberal arts colleges using the responses of 1,803 participants.

Student persistence is also influenced by faculty-student interactions as revealed by previous research. For example, Dwyer's (2017) study was conducted in higher education institutions with students residing off campus in the Republic of Ireland and gathered data from 248 survey responses and from a focus group and individual interviews with 14 students from diverse discipline areas. The researcher found that faculty-student interaction in classrooms positively influences student persistence. The quantitative results showed that high levels of interaction with faculty are moderately linked with higher levels of educational commitment.

In contrast, Nakajima et al. (2012), through a survey of 427 students at a community college located in southern California, U.S., found that faculty-student interaction was not a predictor of student persistence by itself. Instead, faculty-student interaction was positively correlated with students' enrollments units, which is a predictor of students' persistence as measured by retention. Nakajima et al. used an instrument composed of items from the Institutional Integration Scale (IIS) developed by Pascarella and Terenzini (1980), the College Self-Efficacy Inventory (CSEI) developed by Solberg, O'Brein, Villareal, Kennel, and Davis

(1993), and the Career Decision Scale (CDS) developed by Osipow, Carney, Winner, Yanico, and Koschier (1987).

Faculty-student interaction also has an effect on student academic integration. For instance, McKay and Estrella (2008) found via a mixed methods study with 43 first generation students at a large, metropolitan, southwestern university in the U.S., that the communication between faculty and first generation students, as well as a service learning course, have a positive impact in facilitating the process of integration in the academic community. The results of McKay and Estrella's study suggest that interaction with faculty is positively correlated with academic integration. For measuring the responses, the researchers used three instruments, one for each of the variables considered in the study: (1) the quality of the interaction was measured using an original instrument developed by the researchers with seven items, (2) academic integration and social integration were measured by a scale developed by Pascarella and Terenzini (1980), and (3) academic goals were measured by the scale developed by Bers and Smith (1991).

Academic Motivation

Motivation is one of the key concepts related to education given its connection to student learning, achievement, classroom engagement, and student success (Frey, 2018). Academic motivation can be operationalized motivation in an educational context as "a student's desire, effort, and persistence related to achieving academic success" (Trolian et al., 2016, p. 810). Researchers have focused on exploring the effects of motivation in academic settings and there are several concepts that sometimes differ by the term used or overlap with each other, but are all related to student motivation.

For example, Jones (2009) developed a model of academic motivation for designing courses that allow professors to engage students in learning, as based on previous research and theories of motivation. The model that Jones called the MUSIC® model of academic motivation consists of five components: eMpowerment, Usefulness, Success, Interest, and Caring. These components are related to several constructs presenting validity evidence for the college version of the MUSIC® inventory, an instrument that measures the five components of the model. For example, (a) empowerment is related with autonomy; (b) usefulness is related with utility value and instrumentality; (c) success has some similarities with the constructs of expectancy for success, self-efficacy, and competence; (d) interest is related to situational interest, individual interest, and intrinsic motivation; and (e) caring can be connected with belongingness, relatedness, and attachment (Jones & Skaggs, 2016).

The conceptual and theoretical similarities of the constructs mentioned above were validated in Jones and Skaggs' (2016) study, who surveyed 397 undergraduate students from a large public university in the U.S. using a 121-item questionnaire composed of different instruments (including the MUSIC® inventory): (a) the Learning Climate Questionnaire, (b) the Utility Value Scale, (c) the Classroom Life Instrument, (d) the Perceived Competence Scale, (e) the Interest Scale, (f) Effort/Importance Scale, and (g) the Instructor and Course Ratings. They found that the scales of the MUSIC® model (autonomy, utility value, expectancy for success, situational interest, and caring) were correlated with other existing instruments that measured similar constructs, providing "evidence for the convergent validity of the MUSIC inventory scales" and that these scales are correlated with "[student] effort, course rating, and instructor rating" (p. 6).

Other studies have explored the constructs MUSIC® measure, revealing correlations with students' academic outcomes (Walker & Gleaves, 2015), such as knowledge acquisition (Rotgans & Schmidt, 2018), passion for learning (Clapper, 2014), performance (Hulleman, Kosovich, Barron, & Daniel, 2017; Roksa, Trolian, Blaich, & Wise, 2017), engagement (Wood & Newman, 2015), earning higher grades, enrolling in subsequence courses, and being less likely to drop classes (Canning et al., 2018).

For instance, after conducting two research studies, Hulleman et al. (2017) concluded that fostering utility value (or *usefulness*) of content courses benefits students' outcomes. In the first study conducted by Hulleman et al. (2017), 97 students from introductory psychology classes completed a self-reported survey three times in the semester measuring their expectancy, utility value, academic performance, and interest in the course; the results demonstrated that connections between course content and student life result in increased student motivation and learning outcomes. The researchers' second study included a sample of 357 students collecting almost the same data, with the difference being that in study 2 there was a control group (n = 119), a utility value group (n = 116), and an enhanced utility value group (n = 122). Results in Hulleman et al.'s (2017) second study confirm that utility value increases learning outcomes, whereby both treatment groups obtained higher grades.

In a previous study, Hulleman, Godes, Hendricks, and Harackiewicz (2010) surveyed 107 students from an introductory psychology class at the University of Wisconsin–Madison, U.S., and 318 students at a large Midwestern university in order to test a utility value intervention encouraging students to discover the value of the content they were learning. Hulleman et al. (2010) found that utility value is a "potentially important antecedent of both interest and performance" (p. 891).

Researchers also have been focused on exploring how motivation and interest in specific educational context could be linked with students' outcomes (Vecchione, Alessandri, & Marsicano, 2014). Interest is defined as a psychological state of positive emotion about a specific topic or situation (the linking), and a cognitive component of concentration (the engagement). There are at least two types of interest, situational interest referring to the curiosity associated with lack of knowledge, and individual interest which deals with personal values and individual disposition to learn something (Jones, 2009).

For instance, Rotgans and Schmidt (2014) conducted three different studies at a secondary school level, to determine the relationship between situational interest and learning with a focus on the knowledge deprivation perspective. The compiled findings demonstrated that students who are aware of their lack of knowledge to understand a particular problem had increased situational interest in that problem. As a result, situational interest decreased with increasing knowledge of the situation at hand. In a later research study, Rotgans and Schmidt (2018) found that the lack of students' individual interest in specific content can be modified by instructional improvements that increase students' situational interest. In other words, situational interest predicts knowledge acquisition in students, while individual interest is not a significant predictor of learning.

Caring is another construct that has been studied by scholars that is related to student motivation, and covers instructor's disposition about whether students succeed in the coursework and/or care about the students' well-being (Jones & Skagg, 2016). Students' well-being is a relevant issue to address in higher education when the personal life of adult students interferes with course requirements. Thus, the concept of caring goes beyond a merely friendly behavior; it implies respect of students' lives outside the classroom, and instructors considering

accommodations to positively affect students' learning (Jones, 2009). Despite some studies showing that caring relationship with faculty are related to students' intrinsic motivation, positive coping, relative autonomy, engagement in school, expectancies, values, effort, cognitive engagement, self-efficacy, persistence, and performance (Dudley, Liu, Hao, & Stallard, 2015; Jones, 2009), there is scarce research about caring teachers in higher education (Walker & Gleaves, 2015).

As a final research study related to how faculty behaviors can impact student motivation; Walker and Gleaves (2015) employed a grounded theory method with an inductive interpretive approach for determining how teachers in higher education perceive pedagogic care and as such, establish a caring environment in their teaching. From a sample of six purposeful cases selected within a faculty of social sciences at a large university in the North of England, UK, this study adopted a four-interview schedule that utilized two interview frames that complemented and overlapped. This study offers a rich account of behaviors of caring teachers, and what it means in a higher education context. Those behaviors in practice are listening to students, showing empathy, supporting students, actively supporting students' learning, giving students appropriate and meaningful praise, having high expectations of work and behavior, and finally, showing active concern in students' personal lives.

Chapter 2 Closure

Faculty in almost all academic setting play a fundamental role in achieving the educational goals of students. That is also true in higher education institutions like community colleges, that in the U.S. serve almost half of the students pursuing a postsecondary degree. However, higher education in several countries such as the Dominican Republic and the U.S. face challenges such as student attrition, drop-outs, and low completion rates. Therefore,

studying how faculty practice, qualities, behaviors, and their interaction with students may influence students' academic motivation and outcomes is paramount for researchers and educational stakeholders.

In the next chapter, I describe how my quantitative study explored community college students' perceptions of certain faculty behaviors and how those are related to students' classroom motivators and success. My research study was conducted at the first Dominican community college using a descriptive and predictive nonexperimental research design. The instrument for collecting data was mainly based on the Teacher Behavior Checklist (TBC) (Buskist et al., 2002) and the MUSIC® inventory (Jones, 2009), for answering my four research questions, 42 variables were analyzed using descriptive statistics, one-way between subjects (ANOVA), and multiple regressions.

CHAPTER III

METHODS

The purpose of my study was to explore how students from the first and only Dominican community college perceive certain faculty behaviors and how those are related to students' classroom motivators and success.

The research questions that guided my study include:

1. To what extent do community college students indicate the presence of various faculty behaviors and classroom motivators?
2. What differences in these findings exist as broken down by age, gender, and academic areas within this community college?
3. What kind of relationship, if any, exist between the students' perceptions of certain faculty behaviors and classroom motivators?
4. To what extent can the presence of such behaviors and the level of classroom motivators, be used to predict students' GPA and intent to persist?

Study Design or Approach

This quantitative research was conducted using a descriptive and predictive nonexperimental research design. A descriptive approach allowed me to generate a description of the faculty behaviors students indicated exist, and their connection to students' levels of classroom motivators, intent to persist, and GPA. The descriptive approach was conducted to make detailed descriptions of education phenomena; however, this research approach by itself does not have the basis to explain or change the phenomena objects of the study (Gall, Gall, & Borg, 2007). Likewise, the prediction enabled to clarify the understanding of the extent to which

faculty behaviors and student perception of classroom motivators can predict students' GPA and intent to persist until graduation (Wallen & Fraenkel, 2000).

Participants and Setting

The participants for this study were recruited from the first and only community college in the DR. The community college is located in a populous area of Santo Domingo and receives students from across the province and nearby provinces. In May 2019, the community college enrollment reached approximately 5,600 students, where 54% are identified as female and 46% as males; most students could be described as non-traditional according to their age range, family and work responsibilities, and income levels. Furthermore, this community college is a new model in the DR educational system and possesses unique characteristics, such as open enrollment policies and program areas, not found in other DR higher education institutions.

Population and Sampling

The target population for this study were (a) active students who have completed at least 75% of their associate degree, and (b) those who had taken all the credit courses to complete their program but were waiting for the graduation ceremony from the Dominican community college. During May 2019, this community college had 5,600 active students from different academic areas and approximately 900 had completed more than 75% of their career, representing the target population for this study. As I have access to the whole population, no sampling strategies will be used.

Access and Recruitment

After obtaining the proper permits from the community college (see Appendix A) and Human Subjects Institutional Review Board (HSIRB) (see Appendix B) approval from Western Michigan University (WMU), I recruited active students in groups. I looked for class sessions

corresponding to courses offered to students who were at least over 75% done with the classes required by their career program. Those students were taken to a computer lab where they had the opportunity to take the survey online (see Appendix C for English and Spanish versions). Also, I sent an invitation email to those students who have completed all their credits, but were waiting for the commencement ceremony. The message included a link for access the survey online, as well as information about times and dates available to take the survey in a computer lab if they needed (see Appendix D). I also posted an announcement, informing about the purpose of the study to potential participants using flyers, bulletin boards, students' email, and college social media during the three weeks before the data collection starting day (See Appendix E).

Instrumentation

The instrument for this study was an online survey consisting of three sections. The cover page described consent information and section one sought participant's information, program information, and student intent to persist until degree completion. I also asked for the students' college ID, which allowed me to gather each students' accumulated GPA from the community college; part of the consent guaranteed that only I as the researcher had access to this data, and that students would not be identified in any part of the investigation or its results.

Section two was composed of two parts and asked students about their perception of (a) 28 faculty behaviors and (b) 21 items that measure classroom motivators. Questions regarding *faculty behavior* used items from the Teacher Behavior Checklist (TBC), a 28-item checklist of teacher behaviors, including a description of such behaviors, as developed by Buskist et al. (2002). The author of this instrument provided permission to use their checklist to build my instrument for this study (see Appendix F). Participants chose how often overall, they observed

such behaviors with the faculty they have had during their community college classes, using a six-point Likert scale from 1 to 6 (1= Never, 2= Very Rarely, 3= Occasionally, 4= Frequently, 5= Very frequently, 6=Always).

Questions regarding classroom motivators consisted of 21 items as taken from the inventory of the MUSIC® model of motivation (Jones, 2009, 2015). This inventory was built with the purpose of evaluating instructional methods and their relationship with five components of motivation: (a) empowerment, (b) usefulness, (c) success, (d) interest, and (e) caring. For the purpose of this study, the items related to the model constructs of *Usefulness*, *Success*, *Interest*, and *Caring* were considered most aligned with a DR community college setting, and thus used in the survey. Permission for using this instrument is shown in Appendix G. Students were asked to rate their level of agreement with the statements using a six-point Likert scale of agreement from (1) Strongly Disagree to (6) Strongly Agree.

The third section of the survey served to collect some demographic data (*age, gender, and working hours*) and pre-college information (*parents'* or *tutors' education* and *Dominican national test data*) with the purpose to describe the sample and to use such data as control variables for the data analysis.

Most survey instrument items were initially built in English; and then translated by me as the researcher into Spanish, which is the native language of the study population, and then translated back to English to ensure that the essence of the survey was maintained after the translation process. The MUSIC® Model of Academic Motivation Inventory (Jones, 2017) items were taken from the Spanish version of that instrument.

To pilot test my survey, eight community college students from different associate degree programs asked to complete the online survey in Spanish to ensure that the survey was easy to

read, that all items were understandable to the population, and to measure the average time for complete the survey, increasing the content validity of the instrument (Creswell, 2008). Additionally, I gave a printed copy of the survey to each participant in the pilot testing to write their notes or comments about the items of the instrument. The data collected in the pilot testing was not used for the study.

Data Collection Methods and Procedures

The target population for this study were: (a) active students who have completed more than 75% of their associate degree and (b) those who at the moment of the study have taken all the credit courses to complete their program but were waiting for the graduation ceremony from the Dominican community college. Hence, the procedure for these two groups varied slightly. However, both groups completed the same survey using electronic devices in either computer labs at the community college, or on their own devices.

Students who are still enrolled in classes will be recruited in groups, whereby every class section in their respective schedule will be visited by me as the researcher and I will read a script informing to the potential participants about the purpose, benefits, risks, confidentiality statement, how the results of the study will be published, and a note about an opportunity to win one of five gift cards (see Appendix H). For the individuals who are interested in learning more about the study, a link will be provided to access the consent document a survey. A computer lab on campus will available for access the consent and survey that can be completed in about 10 minutes.

For students who have completed classes, but were not yet graduated, they received an email message with a link to access the survey. Two follow-up messages were sent five days and 10 days after the original message thanking those who responded and encouraging others by emphasizing the importance of participation in the study (Dillman, Smyth, & Christiam, 2009).

Data was collected over a seven-day period to answer the proposed research questions. All participants provided limited demographic information, indicated how often they observed the 28 teacher qualities in the faculty they had during their overall community college courses, and completed the 21items from the MUSIC® inventory (Jones, 2017) that was used to calculate participants' classroom motivators scores. Using the ID provided by the students on the survey, the students' overall GPA were requested from the community college registrar office.

Variables

In my study 52 variables were considered for answering my research questions (see Table 4). I treated six of these variables as dependent variables (DVs), including the scores for *Usefulness (M_Usef)*, *Success (M_Succ)*, *Interest (M_Inter)*, and *Caring (M_Cari)*, *students´ GPA (GPA), and their intent to persist in college (Int_Persist).* I obtained the scores for these four motivation variables (*Usefulness, Success, Interest,* and *Caring*) from the survey section containing the MUSIC® Inventory model of motivation, averaging the values of the survey items that correspond to that scale according to the guidelines developed by Jones (2017). These variables also were used as independent variable (IVs) for a different research question. I treated *Student GPA* and *Intent to persist in college variables* as continuous and interval, respectively.

Each of the 28 TBC items was computed as a separate variable (*Qual1* to *Qual28*) for research question one and treated as a continuous interval; values for these variables were ranged from zero (never) to five (always), referring to the extent students perceive that their overall faculty demonstrate each of the 28 qualities and its corresponding behaviors. For research questions two, three, and four these 28 qualities were collapsed into six constructs: (1) rapport with students, (2) course preparation and delivery, (3) encouragement, (4) fairness, (5) time spent with students outside of class, and (6) control.

There are three precollege data IVs including (a) *parents' post-secondary education* (*ParentEd*), (b) *high school origin* (*HighSch*) referring to the category of the student's school of origin (Public, Private, or Technical), and (c) the last call where the student participated (*HighTest*) to pass all national high school exams. After data collection, I transformed and dummy coded these categorical control variables for the regression analyses (Lomax & Hahs-Vaughn, 2012).

Table 4

Coding Scheme for Variables

Code	Variable Label	Use	Values	Survey Item(s)
GPA	Student Overall GPA	DV	0 – 4	2
Int_Persist	Intention to persist	DV	1– 6	4
BPersist*	Binary persistence variable		0= Disagree, 1= Agree	
M_Usef	Usefulness MUSIC® Score	DV/IV	1– 6	6
M_Succ	Success MUSIC® Score	DV/IV	1– 6	6
M_Inte	Interest MUSIC® Score	DV/IV	1– 6	6
M_Cari	Caring MUSIC® Score	DV/IV	1– 6	6
Qual1 to Qual28	Faculty Qualities/Behaviors 28 items from TBC.	IVs	1– 6	5
Rapp	Rapport with Students	IV	1– 6	5
Encour	Encouragement	IV	1– 6	5
Fairn	Fairness	IV	1– 6	5
TSoClass	Time Spent with Student Outside Class	IV	1– 6	5
Ctrl	Control	IV	1-6	5
CPrep	Course Preparation and Delivery	IV	1– 6	5
AreaStd	Area of Study	IV	0=Arts 1=Health, 2=IT, 3=Mechanics,4=Industrial, 5=Construcction,6=Tourism	3
Gender	Gender	IV/Control	0=Female 1=Male	7
Age	Age	IV Control	17– 80	11
AgeGroup*	Age groups	IV Control	1=17– 25, 2=26– 35, 3=36– 45, 4=46– 55	11
ParentEd	Parents Post-Secondary Education	IV Control	0=Both, 1= One, 2=None	8
FirstGSt*	First Generation Student	IV Control		8
HighSch	High School	IV Control	0=Public, 1=Private, 2=Technical	9
HS_Type*	High School Type	IV Control	0=General, 1=Technical	9
HighTest	High School Test Call	IV Control	0=1st 1=2nd, 2=3rd, 3=More than a year	10
HS_Test*	National Test Call Binary	IV Control	0= Passed on1st, 1= Need two or more	10
HourEmp	Hours of employment for week	IV Control	0 – 50	12

Note. CI = Continuous interval; C = Categorical; DC = Dichotomous Categorical; transformed variables.

Four variables covered demographic information composed of the following control variables: (a) gender (*Gender*), (b) age (*Age*), and (c) hours of pay employment (*HourEmp*). I

coded the variable *Gender* as a dichotomous categorical variable (0= Female and 1=Male). The variable *Age* was coded as a continuous interval variable ranging from 17 to 80 years.

Data Analysis

For the data analysis, I conducted descriptive statistics, one-way between-subjects (ANOVA), canonical correlation analysis (CCA), and logistic and multiple linear regression analyses, using the Statistical Package for the Social Sciences (SPSS) version 26. These analyses allowed me to describe the sample of the study and also address my four research questions (See Table 5). I added some non-parametric analysis to confirm the results when some of the parametric analysis assumptions were violated.

Table 5

Data Analysis Cross-Walk Table

Research Question	Variables	Statistical Analysis
RQ1. To what extent do community college students who are about to graduate indicate the presence of various faculty behaviors, and classroom motivators?	Qual1 to Qual28 ,M_Usef, M_Succ, M_Inter, M_Cari	Descriptive Statistics (frequency, mean, SD)
RQ2. What differences in these findings exist as broken down by age, gender, and academic areas within this community college?	Rapp, Encour, Fairn, TSoClass, Control, CPrep Gender, Age, HighSch, AreaStd	Independent T-Test, Mann-Whitney U Test * One-way Between Subjects ANOVA Kruskal-Wallis*
RQ3. What kind of relationship, if any, exist between the student perception of certain faculty behaviors and classroom motivators?	Rapp, Encour, Fairn, TSoClass, Control, CPrep M_Usef, M_Succ, M_Inte, M_Cari	Canonical Correlation
RQ4. To what extent can the presence of such behaviors and the level of classroom motivators, be used to predict students' GPA and intent to persist?	Rapp, Encour, Fairn, TSoClass, Control, CPrep M_Usef, M_Succ, M_Inte, M_Cari GPA, Int_Persist *HighSch, HighTest, HourEmp, ParentEd, Age, Gender*	Pearson Correlation Point-Biserial Correlation Spearman Rho* Kendall's Tau_b* Binary Logistic Regression Multiple Linear Regression with Block Entry

Note: *No-parametric tests.

To answer research question one (RQ1), I used descriptive statistics to describe the characteristics of the respondents and how they perceive each of the *faculty qualities and behaviors*, and *classroom motivators* (Lomax & Hahs-Vaughn, 2012). With this analysis, I also summarized their demographic characteristics (*age, gender, parents' college information,* and *hours of employment*) and precollege data (*high school origin* and *high school national test call*).

To answer research question two (RQ2), I used analysis of variance (ANOVA) and T-Tests to compare the amount of variance between subjects from different groups (*gender, age, and academic areas*) determining if any statistically significant difference exist within the sample (Gall et al., 2007). I conducted a CCA to answer research question number three (RQ3). The CCA allowed me to determine the strength of the relationship between the six collapsed variables of *faculty quality and behaviors* and the dependent variables that refer to academic motivational domains used in this study: *usefulness, success, interest,* and *caring*.

Finally, to address research question four (RQ4), I used logistic and multiple linear regression analyses. Those analyses allowed determine to what extent the independent variables as measured by the frequency the student perceive certain *faculty behaviors* and the level of each *classroom motivator* component, explain the variance in the dependent variables of *students' GPA* and *intent to persist* in college. Control independent variables (*HighSch, HighTest, HourEmp, ParentEd, Age, and Gender*) were entered in the regression equation to account for their effect.

Limitations and Delimitations

The present study was conducted with students during one semester at the Dominican community college in Santo Domingo. Thus, the results from this study are delimited to this population and cannot be generalized beyond that. Additionally, students may not remember or

not be thoughtful in their responses because they will have to reflect backward about their previous faculty, and the survey perhaps was too long for the participants.

Chapter 3 Closure

This study used a non-experimental quantitative research design, collecting data using an online survey as an instrument. The purpose of the study was to explore how students from the Dominican community college who are about to graduate, perceive certain faculty behaviors and how those are related to students' classroom motivators and success. The data collection setting was the first and only community college in the DR. I developed the survey used for this study based on the Teacher Behaviors Checklist (TBC) found in Buskist et al. (2002) and the MUSIC® model of motivation (Jones, 2009). For analyzing the data, I used descriptive statistics, one-way ANOVA, canonical correlation analysis, and logistic and multiple linear regression analysis. Chapter 4 presents and reviews the results of the study.

CHAPTER IV

DATA ANALYSIS

My research study sought to explore how students from the first and only Dominican community college perceive certain faculty behaviors, and to determine how such behaviors are related to students' classroom motivators and success.

The research questions that guided my study include:

1. To what extent do community college students indicate the presence of various faculty behaviors and classroom motivators?
2. What differences in these findings exist as broken down by age, gender, and academic areas within this community college?
3. What kind of relationship, if any, exist between the students' perceptions of certain faculty behaviors and classroom motivators?
4. To what extent can the presence of such behaviors and the level of classroom motivators, be used to predict students' GPA and intent to persist?

To address these research questions, students from the Dominican community college who were about to graduate with their associate degree were invited to participate in an online survey. Participants were recruited in class sessions corresponding to courses offered to students who were at least 75% done with the classes required by their career program; around 30 class sections were recruited, informing the students of the purpose, known risk, and benefits of the study. Also, I provided potential participants with a link to access the online informed consent and survey. Most of the participants accessed the survey through the computer labs on campus that were available and reserved for this purpose.

From the approximate 900 potential participants, 352 completed the survey (a 39% response rate). The survey was composed of three sections: (a) student information and ID; (b) 28 questions about how the frequency they perceived various faculty behaviors and 21 items measuring classroom motivators; and (c) demographic data (age, gender, and working hours) and pre-college data. To promote participation, students were asked at the end of the survey to provide a phone number if they wished to be entered in a random drawing for one of five $25 gift cards; 332 provided their phone number. Five winners were identified and contacted using a random number generator function.

Description of the Population

The target population for this study were (a) active students who had completed at least 75% of their associate degree, and (b) those who already had taken all the credit courses to complete their program, but are waiting for the graduation ceremony. The study was announced to the population using bulletin boards on campus and social media two weeks before the data collection starting day, and email messages were sent to students' institutional emails via a gatekeeper in the college. Of the 352 participants who complete the survey, 332 (94.3%) were recruited via class sections, while 20 (5.7%) responded via email. The lower number of respondents via e-mail could be due to a culture of not using institutional email accounts to complete surveys within this community college.

The respondents are composed of 62% female and 38% male, and a little more than half (51.3%) are first generation students as they selected that none of their parents or guardians have a post-secondary education degree. More than half (63%) were between 17 to 25 years old, followed by 29% who reported an age range between 26 to 35 years old. Proportionally similar to the college population, respondents reported they were enrolled in one of the seven academic

areas, with health having the most participants (36%), and construction the lowest with just three respondents (0.9%). Table 6 presents detailed results of these demographic data.

Table 6

Respondent Gender, Age, and Academic Area (n=352)

Descriptor	Frequency	%
Gender		
Female	219	62.2
Male	133	37.8
Age		
17 to 25	220	62.9
26 to 35	101	28.9
36 to 45	24	6.9
46 to 55	5	1.4
Academic Area		
Health	125	36.0
Arts	70	20.2
Tourism	64	18.4
Information Technologies (IT)	55	15.9
Industry	16	4.6
Electromechanics	14	4.0
Construction	3	.9

Table 7 contains pre-college data such as high school origin and national high school tests. The majority (55.4%) of the respondents graduated from a high school that delivers a general program, 23.7% from a high school that delivers a general education program combined with a technical or vocational program at the same time, and 20.9% came from a private high school.

The national high school tests are required for all students who completed the high school program in the DR and is mandatory to enter any post-secondary program. Students have three opportunities (or calls) while in high school to pass the four tests that measure knowledge in math, language, natural science, and social science. Of the respondents, 71.9% passed their national high school test during the first call, while 21.8% required a second call to passed their national test.

Table 7

Respondents Pre-College Data (n=352)

Descriptor	Frequency	%
High School Origin		
Public General	194	55.4
Private General	73	20.9
Technical *(Public)	83	23.7
National High School Test		
First Call	251	71.9
Second Call	76	21.8
Third Call	19	5.4
More Than one Year	3	.9

Most students (66%) in this sample reported they work in paid employment, which includes 71.4% of males and 63.4% of females. Males (M = 24.62 hours, SD =18.523) reported on average almost the double of working hours per week than females (M = 12.57 hours, SD = 14.630). Also, students were asked to provide their college student ID, so their accumulated Grade Point Average (GPA) could be obtained. Results showed that females (M= 3.18, SD= .369, n= 214) have a higher GPA than males (M= 3.00, SD= .403, n= 128) (see Table 8).

Table 8

Respondents GPA and Working Hours per Week

Descriptor	Female		Male	
	Mean	SD	Mean	SD
Working Hours per Week	12.57	14.630	24.62	18.524
GPA	3.18	.369	3.00	.403

Research Questions Results

Four research questions were raised in my study to explore to what extent these community college students perceive some faculty behaviors, how those behaviors are related to students' classroom motivators, and how the perception of faculty behaviors and classroom motivators could be used to predict student success, as measured by students' intent to persist in college and their GPA.

Research Question 1

The first question sought to determine how often students perceived faculty qualities and behaviors, and to measure students' academic motivation. First, respondents were asked to identify the frequency they perceived 28 faculty behaviors and qualities for their overall faculty throughout their academic program. Students selected to what extent they observed those qualities using a Likert scale of (1) never to (6) always. Table 9 shows the descriptive statistics for students' perception of their overall faculty qualities and behaviors. The reporting of descriptive results is arranged from highest to lowest mean.

Overall, the top 10 most frequent faculty behavior qualities perceived by students within this community college were professionalism (M= 5.45, SD = .914), technologically competent (M=5.37, SD=.968), knowledgeable about subject (M= 5.33, SD=.971), confident (M= 5.26, SD=.882), effective communicator (M= 5.22, SD= .906), approachable(M= 5.01, SD= .991), sensitive and persistent (M= 4.98, SD= 1.134), punctuality and the capacity to manage class time (M=4.97, SD= 1.097), creative and interesting (M= 4.94, SD= 1.108), and establishes daily and academic term goals (M= 4.93, SD=1.144). The qualities perceived the least frequently were flexible or open-minded (M= 3.45, SD=1.555), realistic expectation of students (M= 4.36, SD=1.302), rapport (M= 4.48, SD=1.200), and happy/positive (M= 4.49, SD=1.237).

Regarding student motivation, four constructs of classroom motivators (Usefulness, Success, Interest, and Caring) were measured using the MUSIC® inventory of academic motivation (Jones, 2017). Respondents were asked to select their level of agreement with 21 statements about their current and past courses using a Likert scale of (1) Strongly Disagree to (6) Strongly Agree. Table 10 shows detailed descriptive statistics for each item as ranked from highest to lower mean within a motivator construct, and the overall means for each construct.

Table 9

Students' Perception of Faculty Qualities and Behaviors Frequencies

Faculty Quality	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)	6 n (%)	Mean	SD
Professional	1 0.3	8 (2.3)	6 (1.7)	26 7.5	86 24.7	221 (63.5	5.45	.914
Technologically Competent	3 (0.9)	6 (1.7)	10 (2.8)	27 (7.7)	97 (27.6)	208 (59.3)	5.37	.968
Knowledgeable About Subject Matter	2 (0.6)	5 (1.4)	12 (3.5)	38 (11.0)	89 (25.8)	199 (57.7)	5.33	.971
Confident	0 (0)	2 (0.6)	11 (3.1)	57 (16.3)	104 (29.7)	176 (50.3)	5.26	.882
Effective Communicator	1 (0.3)	4 (1.1)	7 (2.0)	58 (16.6)	114 (32.6)	166 (47.4)	5.22	.906
Approachable/Personable	0 (0.0)	5 (1.4)	20 (5.7)	80 (22.7)	107 (30.4)	140 (39.8)	5.01	.991
Sensitive and Persistent	2 (0.6)	14 (4.0)	24 (6.9)	52 (14.9)	115 (33.0)	142 (40.7)	4.98	1.134
Punctuality/Manages Class Time	2 (0.6)	9 (2.6)	28 (8.0)	57 (16.3)	116 (33.1)	138 (39.4)	4.97	1.097
Creative and Interesting	2 (0.6)	7 (2.0)	33 (9.4)	65 (18.6)	105 (30.0)	138 (39.4)	4.94	1.108
Establishes Daily and Academic Term Goals	2 (0.6)	9 (2.6)	31 (8.9)	74 (21.1)	87 (24.9)	147 (42.0)	4.93	1.144
Promotes Class Discussion	12 (3.4)	15 (4.3)	21 (6.0)	53 (15.1)	105 (29.8)	146 (41.5)	4.88	1.313
Prepared	5 (1.4)	11 (3.2)	30 (8.6)	65 (18.7)	107 (30.7)	130 (37.4)	4.86	1.185
Provides Constructive Feedback	5 (1.4)	9 (2.6)	39 (11.1)	59 (16.9)	105 (30.0)	133 (38.0)	4.85	1.199
Promotes Critical Thinking/Intellectually Stimulating	9 (2.6)	12 (3.4)	25 (7.1)	69 (19.7)	102 (29.1)	134 (38.2)	4.84	1.249
Good Listener	6 (1.7)	8 (2.3)	33 (9.4)	74 (21.1)	106 (30.3)	123 (35.1)	4.81	1.179
Accessible	4 (1.1)	21 (6.0)	27 (7.7)	71 (20.3)	92 (26.3)	135 (38.6)	4.80	1.259
Respectful	22 (6.3)	13 (3.7)	25 (7.1)	43 (12.3)	101 (28.8)	147 (41.9)	4.79	1.458
Presents Current Information	6 (1.7)	15 (4.3)	37 (10.5)	69 (19.7)	107 (30.5)	117 (33.3)	4.73	1.241
Enthusiastic about Teaching and about Topic	0 (0.0)	14 (4.0)	35 (10.1)	102 (29.3)	99 (28.4)	98 (28.2)	4.67	1.110
Authoritative	7 (2.0)	22 (6.3)	52 (14.8)	52 (14.8)	93 (26.5)	125 (35.6)	4.64	1.363
Understanding	10 (2.8)	23 (6.5)	45 (12.8)	59 (16.8)	98 (27.8)	117 (33.2)	4.60	1.378
Humble	9 (2.6)	22 (6.3)	53 (15.3)	65 (18.7)	79 (22.8)	119 (34.3)	4.56	1.391
Encourages and Cares for Students	6 (1.7)	16 (4.5)	51 (14.5)	84 (23.9)	100 (28.4)	95 (27.0)	4.54	1.249
Strives to Be a Better Teacher	11 (3.1)	29 (8.2)	38 (10.8)	69 19.6	97 27.6	108 (30.7)	4.52	1.378
Happy/Positive Attitude/Humorous	2 (0.6)	17 (5.0)	67 (19.6)	68 (19.9)	100 (29.2)	88 (25.7)	4.49	1.237
Rapport	3 (0.9)	17 (4.8)	60 (17.1)	78 (22.2)	114 (32.5)	79 (22.5	4.48	1.200
Realistic Expectations of Students/ Fair Testing and Grading	8 (2.3)	28 (8.0)	50 (14.2)	81 (23.1)	110 (31.3)	74 (21.1)	4.36	1.302
Flexible/Open-Minded	42 (11.9)	66 (18.8)	82 (23.3)	59 (16.8)	60 (17.0)	43 (12.2)	3.45	1.555

Notes: 1= Never, 2= Very Rarely, 3=Occasionally, 4= Frequently, 5= Very Frequently; 6=Always; The top-ten observed faculty qualities are bold.

Table 10

Descriptive Statistics for Classroom Motivators (MUSIC ® Inventory Items)

Inventory Items	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)	6 n (%)	Mean	SD
Usefulness								
The knowledge I gain in the courses is important for my future.	5 (1.4)	1 (.3)	1 (.3)	16 (4.6)	32 (9.1)	296 (84.3)	5.73	.792
The coursework were beneficial to me.	5 (1.4)	3 (.9)	2 (.6)	16 (4.6)	53 (15.1)	272 (77.5)	5.64	.864
I will be able to use the knowledge I gained in the courses.	6 (1.7)	0 (.0)	4 (1.1)	13 (3.7)	65 (18.6)	262 (74.9)	5.62	.851
I found the coursework to be relevant to my future.	6 (1.7)	1 (.3)	2 (.6)	27 (7.8)	69 (19.9)	242 (69.7)	5.53	.907
In general, the coursework was useful to me.	8 (2.3)	3 (.9)	7 (2.0)	26 (7.4)	82 (23.4)	225 (64.1)	5.41	1.035
Overall *Usefulness* Mean and SD							**5.59**	**.745**
Success								
I was confident that I could succeed in the coursework.	2 (.6)	2 (.6)	2 (.6)	15 (4.3)	73 (20.7)	258 (73.3)	5.64	.730
I felt that I could be successful in meeting the academic challenges in the courses.	6 (1.7)	2 (.6)	4 (1.1)	15 (4.3)	54 (15.3)	271 (77.0)	5.62	.895
Throughout the courses, I have felt that I could be successful on the coursework.	5 (1.4)	1 (.3)	6 (1.7)	20 (5.7)	96 (27.4)	223 (63.5)	5.48	.887
I was capable of getting a high grade in the courses.	4 (1.1)	5 (1.4)	4 (1.1)	21 (6.0)	101 (28.9)	215 (61.4)	5.44	.915
Overall *Success* Mean and SD							**5.54**	**.727**
Interest								
The coursework was interesting to me.	4 (1.1)	1 (.3)	5 (1.4)	28 (8.0)	112 (32.0)	200 (57.1)	5.41	.867
I enjoyed completing the coursework.	4 (1.1)	2 (.6)	0 (.0)	36 (10.3)	107 (30.6)	201 (57.4)	5.41	.864
The coursework held my attention.	5 (1.4)	2 (.6)	5 (1.4)	31 (8.8)	111 (31.5)	198 (56.3)	5.37	.922
I enjoyed the instructional methods used in the courses.	8 (2.3)	2 (.6)	7 (2.0)	41 (11.7)	108 (30.8)	185 (52.7)	5.26	1.036
The instructional methods used in the courses held my attention.	8 (2.3)	4 (1.1)	14 (4.0)	37 (10.6)	96 (27.5)	190 (54.4)	5.23	1.109
The instructional methods engaged me in the courses.	6 (1.7)	3 (.9)	6 (1.7)	43 (12.3)	131 (37.5)	160 (45.8)	5.21	.981
Overall *Interest* Mean and SD							**5.33**	**.774**
Caring								
The instructors were respectful of me.	5 (1.4)	4 (1.1)	6 (1.7)	22 (6.3)	51 (14.6)	262 (74.9)	5.56	.949
The instructors were available to answer my questions about the coursework.	7 (2.0)	2 (.6)	8 (2.3)	39 (11.1)	89 (25.4)	205 (58.6)	5.33	1.026
The instructors were friendly.	3 (.9)	5 (1.4)	8 (2.3)	46 (13.1)	110 (31.3)	180 (51.1)	5.26	.966
The instructors were willing to assist me if I needed help in the courses.	8 (2.3)	6 (1.7)	4 (1.1)	42 (12.0)	102 (29.1)	188 (53.7)	5.25	1.078
The instructors cared about how well I did in these courses.	9 (2.6)	5 (1.4)	9 (2.6)	41 (11.7)	112 (32.1)	173 (49.6)	5.18	1.109
I believe that the instructors cared about my feelings.	15 (4.3)	9 (2.6)	39 (11.1)	84 (23.9)	108 (30.8)	96 (27.4)	4.56	1.299
Overall *Caring* Mean and SD							**5.18**	**.849**

Notes: 1= Strongly Disagree, 2= Moderately Disagree, 3= Somewhat Disagree, 4= Somewhat Agree, 5= Moderately Disagree; 6=Strongly Agree. Overall Mean and SD within each construct are bold.

Regarding Classroom Motivators (see Table 10), Usefulness and Success were the most highly ranked within the four motivator constructs, with a mean of 5.59 (SD=.745) and 5.54 (SD= .727) respectively, followed by Interest (M = 5.33, SD = .774), and Caring (M= 5.18, SD= .849). This suggests students' motivation is slightly lead by their perception of the utility value of their coursework and their own expectancy of success in their career courses, rather than the interest they could have as a result of the instructional methods or the sense of being cared for by faculty.

Research Question 2

The second research question focused on determining if any differences exist in the students' perception of faculty behaviors and their classroom motivators, as broken down by age, gender, and academic area. To address this research question, the 28 faculty behaviors variables were collapsed into six faculty behavioral dimensions: (a) rapport with students, (b) course preparation and delivery, (c) encouragement, (d) fairness, (e) time spent with students outside class, and (f) control. Table 11 presents the variables included within each of the six new variables and their respective average mean, standard deviation, and Cronbach's Alpha value. The Cronbach's alpha performed on the six collapsed variables determined to have acceptable reliability except for the Control variable, which could be a limitation (Gliem & Gliem, 2003).

Parametric analyses were used to determine any significant differences including T-Tests and Analysis of Variance (ANOVA). Although some assumptions (e.g., normality) were violated, "parametric statistics can be used with Likert data, with small sample sizes, with unequal variances, and with non-normal distributions, with no fear of 'coming to the wrong conclusion'" (Norman, 2010, p. 631). In some cases, further analysis using non-parametric analyses were conducted because they are based on fewer assumptions.

Table 11

Cronbach Alpha Test and Descriptive Statistics for Collapsed Faculty Qualities Variables

Collapsed Faculty Qualities Variables	Faculty Behavioral Dimension	Cronbach's Alpha	M (SD)
- Authoritative - Establishes Daily and Academic Term Goals - Punctuality / Manages Class Time - Effective Communicator	Control	.585	4.94 (.755)
- Enthusiastic about Teaching and about Topic - Effective Communicator - Prepared - Present current information - Knowledgeable about subject manner - Provides Constructive Feedback - Strives to be a Better Teacher - Creative and Interesting - Technologically Competent	Course Preparation and Delivery	.829	4.94 (.723)
- Respectful - Professional - Realistic Expectations of Students Fair Testing and Grading - Sensitive and Persistence - Humble - Good Listener	Fairness	.747	4.82 (.827)
- Approachable / Personable - Accessible - Confident - Happy/Positive Attitude/Humorous; - Rapport - Understanding	Rapport	.727	4.77 (.753)
- Promotes Critical Thinking / Intellectually Stimulating - Encourages and Cares for Students; - Promotes Class Discussion	Encouragement	.671	4.75 (.984)
- Flexible / Open-Minded - Understanding - Approachable / Personable - Accessible - Sensitive and Persistence - Rapport	Time Spent with Students Outside Class	.723	4.55 (.813)

Notes: 1= Never, 2= Very Rarely, 3=Occasionally, 4= Frequently, 5= Very Frequently; 6=Always;

Gender differences for faculty behaviors. Independent-samples t-tests were run to determine if there are differences in the students' perception of *Faculty Behaviors* between males and females. The assumption of homogeneity of variances was met for the faculty behaviors categories (p's >0.5), except for Time Spent with Student Outside Class (p=.025), hence an unequal variance t-test was used. Normality was violated as assessed by Shapiro Wilk's test (all p's < .05); however parametric statistics on Likert-scale data are still robust despite the violation

of these assumptions (Norman, 2010). There were some outliers in the data, as assessed by inspection of a boxplot; however, there are no leverage values above 0.2 and no influential points (Cook's distance < 1).

Female students perceive their faculty showed more behaviors related to Control, Encouragement, and Course Preparation and Delivery than males, and males perceived their faculty showed more behaviors related to Rapport, Fairness, and Time Spent outside Class than females. Yet, all but one difference were not statistically significant; only Time Spent Outside Class had a statistically significant difference, M = -0.17, 95% CI [-0.35, -0.01], t(-2.057) =5.047, p = .041 (see Table 12).

Table 12

T-Test of Student Perception of Faculty Behavior Differences by Gender

Variable	Female		Male		t	p	M Diff	95% C.I.	
	M	SD	M	SD				Lower	Upper
Rapport	4.72	.784	4.87	.690	-1.859	.064	-.1533	-.31546	.00888
Course preparation and Delivery	4.97	.741	4.90	.694	.843	.400	.0670	-.08937	.22355
Encouragement	4.79	1.009	4.68	.941	1.043	.298	.1128	-.09999	.32562
Fairness	4.80	.853	4.87	.783	-.802	.423	-.0729	-.25180	.10592
Time Spent w/ Student Outside Class	4.49	.850	4.66	.738	-2.057	**.041***	-.1768	-.34597	-.00765
Control	4.98	.753	4.89	.757	1.070	.285	.0888	-.07439	.25205

Notes: Female (n= 219), Male (n= 133). *Statistically significant at p < 0.05

As a non-parametric test, Mann-Whitney U tests were also run to determine if there were differences in the students' perception of Faculty Behaviors between males and females. All faculty behaviors scores for males and females were similar, as assessed by visual inspections. Using this more robust test, no statistical differences were found at all within the students' perception of the six faculty dimensions between males and females, as shown in Table 13.

Table 13

Mann-Whitney U Test of Student Perception of Faculty Behaviors Differences by Gender

Descriptor	U	z	p	Median		Mean Rank	
				Male	Female	Male	Female
Rapport	16026.5	1.585	.113	5.00	4.83	187.50	169.82
Course preparation and Delivery	13464.0	-1.189	.234	5.00	5.00	168.23	181.52
Encouragement	13301.0	-1.373	.170	4.67	5.00	167.01	182.26
Fairness	15150.5	.635	.525	5.00	4.83	180.91	173.82
Time Spent with students outside class	16142.5	1.710	.087	4.67	4.50	188.37	169.29
Control	13567.0	-1.082	.279	5.00	5.00	169.01	181.05

Notes: Female (n= 219), Male (n= 133). *Statistically significant at $p < 0.05$

Gender differences for classroom motivators. Table 14 shows T-Tests results indicating there are statistically significant differences between gender groups for Usefulness, Success, and Interest (p's < 0.05), but no statistically significant difference was found between gender groups in Caring (p = .843). Due to unequal variances in the variables of Usefulness, Success, and Interest (p's < 0.05), Satterthwaite approximation was used in the t-test analysis. Normality was also examined for each dependent variable and found to be not tenable in either t-test analysis (all p's < .0001), although the t-test is robust to this assumption violation.

Table 14

T-Test of Classroom Motivators by Gender

Variable	Female			Male			T	p	M Diff	95% C.I.	
	N	M	SD	N	M	SD				Lower	Upper
Usefulness	213	5.67	.605	130	5.45	.917	2.434	**.016***	.2203	.04178	.39873
Success	216	5.66	.600	133	5.36	.869	3.433	**.001***	.2942	.12527	.46311
Interest	213	5.44	.649	128	5.13	.917	3.415	**.001***	.3155	.13334	.49773
Caring	212	5.19	.859	130	5.17	.834	.198	.843	.0188	-.16742	.20492

* Significant at $p < 0.05$

As non-parametric tests, Mann-Whitney U were also run to determine if there are differences in students' motivation between males and females. All distributions of the four academic motivation constructs for males and females were similar, as assessed by visual

inspections. Similar to the parametric T-Tests, Caring was not statistically significantly different between males and females (both Mdn= 5.33), while Usefulness, Success, and Interest scores were statistically significantly different (all *p's* <.05), as shown in Table 15. Females were slightly higher motivated in Usefulness (Mdn = 6.00), Success (Mdn=5.75), and Interest (Mdn = 5.67) than their males classmates (see Table 15).

Table 15

Mann-Whitney U Test of Students Motivation Difference by Gender

Descriptor	N	U	z	p	Median		Mean Rank	
					Male	Female	Male	Female
Usefulness	343	11710.5	-2.541	**.011***	5.80	6.00	155.58	182.02
Success	349	11031.5	-3.816	**.000***	5.50	5.75	149.94	190.43
Interest	341	10542.5	-3.550	**.000***	5.33	5.67	146.86	185.50
Caring	342	13279.0	-.568	.570	5.33	5.33	167.65	173.86

* Significant at p < 0.05

Age differences for faculty behaviors. One-way ANOVAs were conducted to determine if the perceptions of students regarding faculty behavioral categories were different for groups within different age ranges. Participants were classified into four groups: 17 to 25 (n = 220), 26-35 (n = 101), 36 to 45 (n= 24), and 46 to 55 (n = 5). There was homogeneity of variances, as assessed by Levene's test of homogeneity of variances (p >0.05). Results indicate that student perception of Rapport, Encouragement, Fairness, Control, and Time Spent with Student Outside Class were not statistically significant different between age groups, while the perception of faculty qualities and behaviors related to Course Preparation and Delivery was statistically significantly different, F (3,346) =6.943, p =.004, ω2 = 0.03.

The student perceptions of Course Preparation and Delivery of faculty increased in students aged from 17 to 25 (M = 4.84, SD = 0.71), to those aged 26 to 35 (M = 5.06, SD = 0.75), 46 to 55 (M = 5.18, SD = 0.55) and 36 to 45 (M = 5.29, SD = 0.62) (see Table 16). Tukey

post hoc analysis revealed that the mean increase from 17-25 to 26-35 (0.22, 95% CI [0.00, 0.44]) was statistically significant (p = .047), and the mean increase from 17-25 to 36-45 (0.45, 95% CI [0.05, 0.84]) was statistically significant (p = .019); no other group differences were statistically significant.

Table 16

Students' Perception of Faculty Behaviors by Age Group

Descriptor	17-25yrs (n = 220)		26-35yrs (n = 101)		36-45yrs (n = 24)		46-55yrs (n = 5)	
	M	SD	M	SD	M	SD	M	SD
Rapport	4.73	.751	4.86	.756	4.85	.739	4.60	.947
Course Preparation and Delivery	**4.84**	.707	**5.06**	.748	**5.29**	.620	5.18	.547
Encouragement	4.71	.907	4.86	1.125	4.81	.978	4.50	.894
Fairness	4.78	.832	4.90	.827	4.89	.789	4.73	.813
Time Spent with Students Outside Class.	4.52	.800	4.61	.837	4.64	.817	4.67	1.093
Control	4.88	.755	5.07	.753	5.01	.661	5.13	1.028

* Significant at $p < 0.05$ using One-Way ANOVA, with means bolded that revealed such differences.

Age differences for classroom motivators. In order to determine if there were statistically significant difference of students' perceptions of classroom motivators, several one-way ANOVAs were conducted with different age range groups. For these classroom motivation variables (Usefulness, Success, Interest, and Caring), normality as assessed by Shapiro Wilk's test, and homogeneity of variance as assessed by Levene's test for equality of variances, were violated; hence, a Welch ANOVA is used. Table 17 shows descriptive statistics of classroom motivators by age group indicating that students in the 36 to 45 years old are more motivated in three of the four classroom motivators assessed: Success (M = 5.66, SD = .691), Interest (M = 5.57, SD = .521), and Caring (M = 5.38, SD = .941), while students in the group of 26 to 35 years old are more motivated in Usefulness (M = 5.69, SD = .691). However, none of these mean differences were statistically significant (Usefulness, Welch's $F(3,13.228) = .901$, $p = .467$;

Success, Welch's F(3,16.954) = .344, p = .794; Interest, Welch's F(3,17.099) = 2.493, p = .095; and Caring, Welch's F(3, 13.179) = .772, p = .530 between the different age groups).

Table 17

Students' Perception of Classroom Motivator by Age Group

Descriptor	17-25yrs			26-35yrs			36-45yrs			46-55yrs		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Usefulness	216	5.56	.689	97	5.69	.691	24	5.62	.870	4	4.60	2.417
Success	217	5.53	.646	101	5.58	.730	24	5.66	.843	5	4.95	2.211
Interest*	216	**5.27**	.723	96	**5.44**	.779	22	5.57	.521	5	4.90	2.191
Caring	215	5.15	.785	98	5.26	.862	23	5.38	.941	4	4.46	2.331

* Significant at $p < 0.02$ using non-parametric Kruskal-Wallis, with means bolded that revealed significant differences.

Kruskal-Wallis, the non-parametric version of ANOVA was also performed to determine if there were differences in Usefulness, Success, Interest, and Caring scores between different age groups. Distributions of those scores were not similar for all groups, as assessed by visual inspection of a boxplot. Results revealed that only Interest scores were statistically significantly different between the age ranges, $\chi2(3) = 11.416$, $p = .010$. Afterward, pairwise comparisons were performed with a Bonferroni correction for multiple comparisons. Adjusted p-values are presented. Post hoc analysis revealed statistically significant differences in Interest scores between the 17-25 (mean rank = 156.83) and 26-35 (mean rank = 190.34) ($p = .029$) age groups, but not between 36-45 (mean rank = 201.64) and 46-55 group (mean rank = 209.20) or any other group combination.

Academic area differences for faculty behaviors. Table 18 show descriptive statistics of students' perception of faculty behaviors by academic area. ANOVA results indicate that student perceptions of Rapport, Encouragement, Fairness, Control, and Time Spent with Student Outside Class were not statistically significant different between academic areas (p's > .05), while Course Preparation and Delivery was statistically significant ($F(6,340) = 2.206$, $p= .042$).

However, Tukey post-hoc analysis on Course Preparation and Delivery did not show any statistically significant difference among groups, maybe due to a low power caused by groups less than five cases.

Table 18

Students' Perception of Faculty Behaviors by Academic Area

Descriptor	Arts	Health	IT	Electro.	Indus.	Constr.	Tourism
	M SD	M SD	M SD	M SD	M SD	M SD	M SD
Rapport	4.83 .835	4.83 .701	4.73 .733	4.80 .817	4.49 .926	5.16 .454	4.68 .722
Course Preparation and Delivery*	4.87 .787	5.07 .678	4.76 .672	5.03 .850	4.65 .878	5.52 .570	4.94 .654
Encouragement	4.59 1.086	4.99 .840	4.56 .898	4.69 .910	4.46 .806	4.00 2.645	4.68 1.064
Fairness	4.64 .832	4.92 .792	4.74 .828	4.90 .859	4.60 .992	5.50 .441	4.90 .811
Time Spent with Students Outside Class	4.65 .908	4.55 .764	4.49 .803	4.67 .882	4.35 .992	4.72 .535	4.51 .744
Control	4.84 .752	5.04 .744	4.80 .773	4.82 .942	4.66 .763	4.67 .878	5.05 .672

Notes: Arts (n= 70), Health (n= 125), IT (n= 55), Electromechanics (n=14), Industrial (n= 16), Construction (n= 3), Tourism (n=64). * Significant at $p < 0.05$ via One-Way ANOVA analysis

Academic area differences for classroom motivators. In looking at the level of motivators, students reported similar levels on Usefulness, Success, Interest, and Caring (see Table 19). However, to test if any significant difference exists, a Welch ANOVA was conducted due to the violation of the homogeneity of variances. Results showed that there was a significant difference in the mean of Interest scores [Welch $F(6,23.672)=4.645$, $p = .004$] among students from different academic areas. Post hoc comparisons using the Games-Howell test were carried out. There was a significant difference between students of Arts and Health programs ($p = .013$) with students in Health programs reported a high score ($M = 5.56$, $SD = .500$) for Interest, on average .29 more than those on Arts career programs ($M = 5.27$, $SD = 5.73$). There was also a statistically significant difference between Health and IT students ($p < .001$), with students in

Health programs reported on average .68 more than those in IT programs (M = 4.88, .SD =1.039), as shown in Table 20.

Table 19

Students' Classroom Motivators by Academic Area

Descriptor	Arts	Health	IT	Electro.	Indus.	Constr.	Tourism
	M SD	M SD	M SD	M SD	M SD	M SD	M SD
Usefulness	5.64 .463	5.70 .574	5.22 1.117	5.54 .681	5.70 .365	5.73 .231	5.57 .917
Success	5.54 .551	5.71 .520	5.22 .977	5.46 .739	5.52 .642	6.00 .000	5.50 .940
Interest*	**5.27** .573	**5.56** .500	**4.88** 1.039	5.37 .733	5.33 .627	5.06 .855	5.29 1.004
Caring	5.15 .876	5.36 .704	4.95 .959	5.18 .911	5.96 .790	5.50 .726	5.08 .936

* Significant at $p < 0.05$ using One-Way ANOVA, with means bolded that revealed such differences

Table 20

Post Hoc Results for Interest Scores by Students' Academic Area

Academic Area	Mean	Mean Difference						
		1	2	3	4	5	6	7
1. Arts	5.27	---						
2. Health	5.56	**.29***	---					
3. IT	4.88	.40	**.68****	---				
4. Electromechanics	5.37	.10	.19	.50	---			
5. Industrial	5.33	.06	.23	.46	.04	---		
6. Construction	5.05	.22	.50	.18	.32	.28	---	
7. Tourism	5.29	.02	.27	.42	.08	.04	.24	---

Notes: *$p<0.02$; **$p<0.001$

Research Question 3

This question sought to explore the relationship between the students' perception of faculty behaviors and their reported levels of classroom motivators. As the analysis involved two sets of multiple independent variables and multiple dependent variables, a canonical correlation analysis (CCA) was conducted using the six faculty behavior variables as predictors of the four classroom motivator variables to evaluate the multivariate shared relationship

between the two variable sets (See Figure 2). CCA is a multivariate statistical model that simplifies the study of interrelationships among sets of multiple dependent variables and multiple independent variables (Ho, 2013).

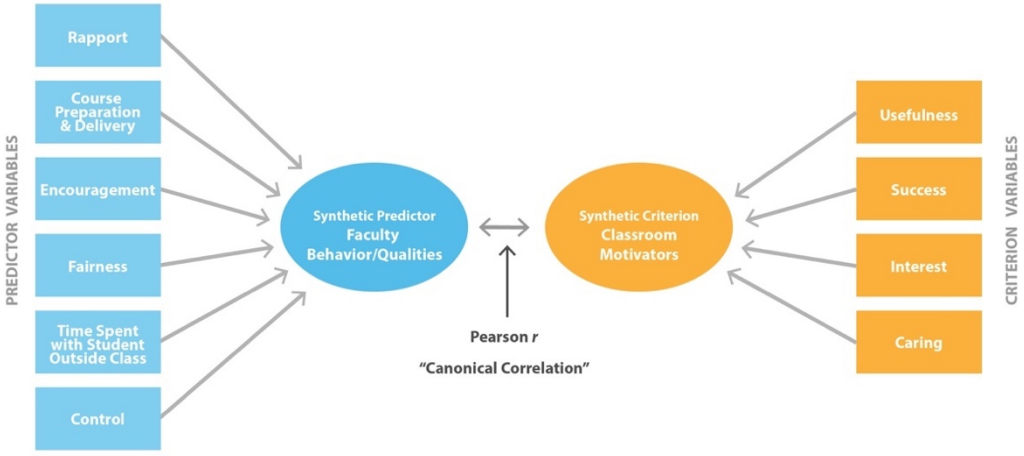


Figure 2. Illustration of the first function in a canonical correlation analysis with six predictors and four criterion variables.

The analysis extracted four functions, as the smaller set of variables has four. A function is a "set of standardized canonical function coefficients (from two linear equations) for the observed predictor and criterion variable sets," whereby you compare a single function to "the set of standardized weights found in multiple regression (albeit only for the predictor variables)" (Shery & Henson, 2005, p. 40).

The analysis yielded four functions with squared canonical correlations (R_c^2) of .412, .114, .008, and .004 for each successive function (see Table 21). Collectively, the full model across all functions was statistically significant using the Wilks's $\lambda = .515$ criterion, $F(24, 1086.16) = 9.480$, $p < .001$. Because Wilks's λ represents the variance unexplained by the model, $1 - \lambda$ yields the full model effect size in an r^2 metric. Thus, for the set of four canonical functions, the r^2 type effect size was .485, which indicates that the full model explained a

substantial portion, about 48.5%, of the variance shared between the variable sets. The dimension reduction analysis allows the researcher to test the hierarchal arrangement of functions for statistical significance. As noted, the full model (Functions 1 to 4) was statistically significant. Function 2 to 4 was also statistically significant, F (15, 861.70) = 2.806, p < .001. Function 3 to 4, and Function 4 (which is the only function that was tested in isolation), did not explain a statistically significant amount of shared variance between the variable sets, F(8, 626) = .438, p = .898 and F(3, 314) = .369, p = .776.

Table 21

Canonical Correlations and Hierarchal Statistical Significance Tests

Function	Wilks λ	Correlation	Canonical R_c^2	F	Significance of F
1 to 4	**.515**	**.642**	**.412**	**9.480**	**.000****
2 to 4	**.877**	**.337**	**.114**	**2.806**	**.000****
3 to 4	.988	.087	.008	.438	.898
4 to 4	.996	.059	.003	.369	.776

Note: Each function separately in which only the last canonical function is tested separately dimension.
***p < 0.001*

Given the effects for each function, only the first two functions were R_c^2 considered noteworthy in the context of this study (41.2% and 11.4% of shared variance, respectively). The last two functions only explained 0.8% and 0.3%, respectively, of the remaining variance in the variable sets after the extraction of the prior functions. Table 22 presents the standardized canonical function coefficients and structure coefficients for Functions 1 and 2. The squared structure coefficients are also given as well as the communalities (h^2) across the two functions for each variable.

Looking at the Function 1 coefficients, one sees that relevant criterion variables were primarily Caring (1.124), with Usefulness (-.419), Interest (.349), and Success (-.255), making secondary contributions to the synthetic criterion variable. However, due to the instability of these standardized coefficients, particularly in the presence of multicollinearity, interpretation of

the structure coefficients (r_s) is considered more appropriate. Results show that the primary contributor of the latent criterion variable is Caring (.933), the other three observed variables returned moderate structure coefficients: Interest (.641), Usefulness (.409) and Success (.400) indicating that all four variables are primary contributors to the latent criterion variable of Classroom Motivators. Furthermore, all of these variables' structure coefficients had the same sign, indicating that they were all positively related.

Table 22

Canonical Solution for Faculty Behavior Qualities Predicting Students' Classroom Motivators

Variable	Function 1			Function 2			h^2 (%)
	Coef	r_s	r_s^2(%)	*Coef*	r_s	r_s^2(%)	
Usefulness	-.419	.409	16.72	-.055	-.438	19.18	38.63
Success	-.255	.400	16.00	.212	-.262	6.86	24.33
Interest	.349	.641	41.09	-1.482	-.699	48.86	90.50
Caring	1.124	.933	87.05	.951	-.006	.00	88.46
$\boldsymbol{R_c^2}$			***41.24***			***11.35***	
Rapport	.318	.891	79.39	.668	.272	7.40	84.34
Course Prep	.269	.864	74.65	-.779	-.344	11.83	88.97
Encouragement	.377	.854	72.93	-.278	-.231	5.34	75.37
Fairness	.178	.818	66.91	.451	.136	1.85	67.34
Time spent o/Class	.085	.890	79.21	.406	.255	6.50	84.93
Control	-.093	.650	42.25	-.639	-.502	25.20	62.13

Note. Structure coefficients (r_s) greater than |.45| are underlined. Communality coefficients (h^2) greater than 45% are underlined. *Coef* = standardized canonical function coefficient; r_s = structure coefficient; r_s^2= squared structure coefficient; h^2 = communality coefficient.

Regarding the predictor variable set in Function 1, Table 22 shows that five of the independent variables have high structure coefficients (r_s) or canonical loadings: Rapport (.891), Time spent with student outside class (.890), Course Preparation and Delivery (.864), Encouragement (.854), and Fairness (.818), with Control (.650) having made secondary contributions to the latent predictor (Faculty Behaviors) variable. The higher r_s on the predictor variable set is related to the higher on the criterion variable set (Caring and Interest). The structure coefficients (r_s) "reflect the direct contribution of one predictor variable to the criterion

variable regardless of other predictors" (Ho, 2014, p. 418). Note that the order of magnitude of these coefficients is different to that found for the standardized coefficients, with the first five independent variables having the larger coefficients. These variables' contribution to the latent independent variable is further borne out by their squared structure coefficients (r_s^2), which indicate the amount of variance these observed variables contributed to the latent variable. In terms of the coefficients' directionality, notice that all the variable structure coefficients have the same sign (positive), suggesting that they are all positively related.

Moving to Function 2, the coefficients in Table 22 suggest that the only criterion variable of relevance was Interest. As for faculty qualities, Control was now the dominant predictor. Looking at the structure coefficients for the entire function, it shows that Control was positively related to Interest. Lower on Control is related to lower on Interest. Considering the nature of these variables, this function could be interpreted as the "Faculty initiatives for the learning environment" that will be discussed in the next chapter.

Research Question 4

Finally, the last research question sought to explore to what extent student perceptions of faculty behaviors and their reported level of classroom motivators predict students' GPA and their intention to persist in college. To address this research question multiple regression and a binary logistic regression were conducted. The mean centered scores from the six collapsed faculty behavioral dimensions and the four classroom motivators were used. Also, other independent variables were included in the regression equation as control variables, including parental education level as a proxy for SES, and passage of the national high school tests and type of high school attended as proxies for prior academic knowledge.

Nominal variables consisting of three or more categories were transformed to be entered in the regression analyses. One of the control variables, the independent variable "Parents postsecondary education" had three categories and was transformed into a new variable "First-Generation Student" where (1) Both of my parents, and (2) One of my parents, were coded 0, and (3) None of my parent was coded 1, indicating that the participant is a "first generation" or a "non-first-generation" student respectively. The same was done with second control variable, "National High School Test," which was recoded into two categories: Passed all on first call = 0, Two or More Calls to Passed High School = 1. The final control variable, "High School Origin," was also transformed and recoded into two new variable "High School Type" (Public High School = 0, Private High School =1).

Correlation. Using nonparametric correlation tests, analyses were conducted to determine the relationship among all variables in the study (see Table 23). Further, to show the correlation strength of the independent variables (Classroom Motivator, Faculty Behaviors, Demographic, and Precollege Data) with the dependent variables (Intention to Persist and GPA), Point-Biserial and Pearson correlation analysis were conducted respectively. Interest was the only variable showing a significant correlation with Intention to Persist in the non-parametric tests, while Usefulness, Success, Working Hours per Week, Male (vs Female), and Two or More Calls to Passed High School showed significant correlation with students' GPA (see Table 24).

The correlation found between Usefulness (.119), Success, (.161), and the load of Working Hours per Week (-.145) showed a small linear relationship with students' GPA ($p < .05$). Also, results showed a statistically significant correlation between Two or More Calls to Passed High School and GPA, $r_{pb} = .306$, $p < .001$, with those who passed all tests in the first call having a higher GPA than others needing two or more calls to pass M = 3.18 (SD = .333)

versus M = 2.91 (SD = .460). These findings confirm Spearman Rho and Kendall's tau_b results that show significant correlations between those variables, except between Interest and Intention to Persist, with those that agree to be committed to persist in college, reporting a higher score on Interest (M = 5.61, SD = .469) than those who did not agree (M = 5.31, SD = .798) as shown in Table 23.

Table 23

Kendall's Tau_b and Spearman Rho Correlation Analysis Among All Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
																	Kendall's tau_b
1. Intention to Persist	---	.045	-.082	-.041	**-.095***	-.050	-.055	-.035	.035	.032	-.036	.000	.099	-.103	.030	-.049	.004
2. GPA	.054	--	**.088***	**.147****	.044	.019	-.016	-.017	.017	-.025	-.002	-.028	-.039	**-.218****	**-.185****	-.021	**-.131****
3. Usefulness	-.091	**.120***	---	**.387****	**.573****	**.416****	**.202****	**.314****	**.279****	**.199****	**.204****	**.272****	-.026	-.059	**-.124***	-.016	-.078
4. Success	-.046	**.198****	**.456****	----	**.422****	**.348****	**.158****	**.244****	**.244****	**.219****	**.171****	**.167****	-.008	**-.110***	**-.184****	.010	**-.099***
5. Interest	-**.111***	.062	**.679****	**.511****	---	**.500****	**.245****	**.387****	**.360****	**.251****	**.254****	**.323****	-.042	-.023	**-.166****	-.019	**-.100***
6. Caring	-.058	.031	**.519****	**.438****	**.635****	---	**.463****	**.476****	**.447****	**.424****	**.467****	**.335****	.049	.037	-.026	.018	**-.115***
7. Rapport	-.066	-.023	**.260****	**.207****	**.328****	**.608****	---	**.538****	**.457****	**.534****	**.782****	**.409****	.033	.007	.071	.018	-.005
8. Course preparation and Delivery	-.042	-.024	**.404****	**.318****	**.511****	**.625****	**.697****	----	**.507****	**.545****	**.544****	**.538****	.022	.005	-.053	.012	-.063
9. Encouragement	.041	.021	**.351****	**.309****	**.465****	**.570****	**.591****	**.648****	----	**.478****	**.466****	**.429****	.017	-.006	-.063	-.047	-.081
10. Fairness	.038	-.038	**.258****	**.289****	**.338****	**.559****	**.688****	**.702****	**.604****	----	**.541****	**.445****	.038	.070	.029	.042	.017
11. Time Spent w/ Student Outside Class	-.042	-.005	**.265****	**.226****	**.342****	**.607****	**.910****	**.705****	**.601****	**.696****	----	**.398****	.030	.009	.077	.029	-.006
12. Control	.000	-.042	**.343****	**.211****	**.422****	**.440****	**.538****	**.693****	**.544****	**.575****	**.523****	---	.029	.017	-.049	.036	-.066
13. Private High School	.099	-.047	-.029	-.009	-.048	.058	.039	.026	.020	.046	.036	.034	---	-.010	.036	**.166****	.044
14. Two or More Calls to passed High School	-.103	**-.266****	-.066	**-.122***	-.026	.043	.008	.006	-.006	.083	.011	.020	-.010	---	.048	.040	.048
15. Male(vs Female)	.030	**-.225****	**-.137***	**-.205****	**-.192****	-.031	.085	-.063	-.073	.034	.091	-.058	.036	.048	---	.079	**.290****
16. First Generation	-.049	-.026	-.018	.011	-.022	.021	.022	.015	-.054	.050	.035	.042	**.166****	.040	.079	---	-.008
17. Work Hours	.004	**-.191****	-.103	-.129	**-.138***	**-.159***	-.007	-.088	-.110	.025	-.008	-.093	.052	.056	**.342****	-.010	---
	Spearman's Rho																

Note: Kendall's tau_b results are in the upper-right and Spearman's Rho are in the lower-left section of the table. *p<.05 (2-tailed), **p<.01 (2-tailed); Statistically significant correlations are bold.

Table 24

Pearson Correlations with Intention to Persist, GPA, and Other IVs

Variables	Intention to Persist		GPA	
	Coef.	Sig.	Coef.	Sig.
Usefulness	-.092	.098	**.119***	.029
Success	-.065	.244	**.161****	.003
Interest	-.106	.058	.097	.078
Caring	-.040	.479	.062	.262
Rapport	-.043	.435	-.001	.985
Course Preparation and Delivery	-.044	.428	-.003	.951
Encouragement	.052	.347	.014	.793
Fairness	.041	.455	-.004	.938
Time Spent w/ Student Outside Class	-.022	.695	.013	.811
Control	-.008	.885	-.020	.710
Private High School	.099	.072	-.043	.427
Two or More Calls to passed High School	-.103	.062	**-.306****	.000
Male (vs Female)	.030	.590	**-.215****	.000
First Generation Student	-.049	.375	-.017	.749
Work Hours	.025	.713	**-.145***	.029

Note: **p<.05 (2-tailed), **p<.01 (2-tailed); Statistically significant correlations are bold.

Intention to persist in college. For the purpose of this analysis, the dependent variable "Intention to Persist" using a Likert scale of (1) Strongly Disagree to (6) Strongly Agree (M= 4.52, SD= 1.406), was transformed and recoded into a binary variable and coded as follows: the first category values (1)Strongly Disagree (n= 28), (2)Moderately Disagree (n= 0), and (3)Somewhat Disagree (n= 0), were coded 0; while the second category, coded 1, consisted of those values corresponding to (4)Somewhat Agree (n= 5), (5)Moderately Agree (n= 10), and (6)Strongly Agree (n= 288), were coded 1. This reflect the students who are in agreement or disagreement with the statement about their commitment to obtain the associate degree in the community college.

Several logistic regression models were built using stepwise (forward and backward) and manual entry logistic regression methods. Of the models tested, the one with the highest level of prediction and Nagelkerke R^2 value is presented. The logistic regression model was statistically

significant as tested with the Omnibus Test of Model Coefficients $\chi^2(6) = 14.009$, p = .030; the Hosmer and Lemeshow Test showed a chi square with insignificant results, confirming the model fit. Additionally, Nagelkerke R^2 explain a 10.3% of the variation in the dependent variable (see Table 25).

Table 25

Significance of Model Fit

Test	Chi Square	df	p
Omnibus Model Coefficients	14.009	6	.030
Hosmer/Lemeshow Test	4.308	8	.828
Nagelkerke R^2 .103			

The classification accuracy of the model predicting those falling into the categories of disagreement (0) and agreement (1) with the statement *I am strongly committed to obtaining my associate degree* was tested using the Receiver Operating Characteristic (ROC) curve (see Figure 3). This measure is considered the standard and gives a better description of classification accuracy. In this model, the ROC curve was .723, 95% CI [.625, .828], which is an acceptable level of discrimination (Hosmer, Lemeshow, & Sturdivant, 2013).

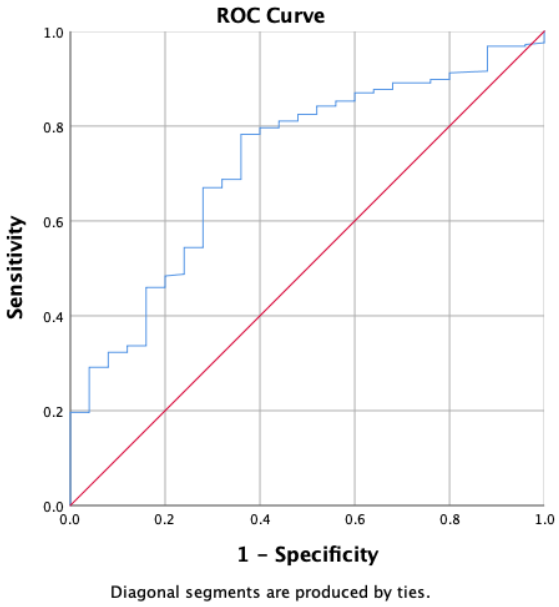


Figure 3. ROC curve of the model classification.

The analysis from the binary logistic regression showed that just the independent variable of Encouragement (p = .031) was statistically significant for the dependent variable *Intention to Persist*. Resulting, logit(IntentionToPersist) = 2.177 +.483encouragement (see Table 26). The odds ratio for the significant variables were converted to a percentage by using the following formula: (ExpB-1) x 100.

This means that controlling for differences in the independent variables, as the score for the student perception of Encouragement behaviors from their faculty increases by 1.0 point, the likelihood of reporting agreement of intention to persist in college would increase by 1.642 times, or with each increased score on Encouragement behaviors from faculty, the odds of the agreement to persist in college increase by 62% Table 26 show the full summary of the model.

Table 26

Logistic Regression Summary Predicting Intention to Persist

Variable	B	S.E.	Wald	Sig.	Exp(B)	Exp(B) (%)	95% C.I.for EXP(B)	
							Lower	Upper
Usefulness	-.956	.882	1.173	.279	.384	(-61.6)	.068	2.168
Interest	-.838	.587	2.040	.153	.433	(-56.7)	.137	1.366
Encouragement	.483	.224	4.650	.031*	1.620	(62.0)	1.045	2.512
Two or More Calls to Passed High School	.823	.451	3.335	.068	2.277	(127.7)	.941	5.506
Male (vs Female)	-.239	.468	.261	.609	.787	(-21.3)	.315	1.969
First Generation Student	.446	.437	1.038	.308	1.561	(56.1)	.663	3.678
Constant	2.177	.498	19.110	.000	8.824	---	---	---

Note: Significant at *p < .05, Odds ratio for the significant variables were converted to a percentage by using the following formula: (ExpB-1) x 100

Grade point average. A multiple linear regression with block entry was conducted to determine to what extent the faculty behaviors categories and the classroom motivators predict students' GPA. This approach was selected to assess the additional explanatory power the sets of variables contributes to the equation (Ho, 2014). As my interest is in the connection of Classroom Motivators and Faculty Behaviors with students' GPA, the variable were entered in

this order: (a) Classroom Motivator variables of Usefulness, Success, Interest, and Caring; (b) Faculty Behavior variables of Rapport, Course Preparation and Delivery, Encouragement, Fairness, Time Spent with Student Outside Class, and Control; and (c) demographic and pre-college data.

The first model tested was a full model including all the variables. There was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values. There was independence of residuals, as assessed by a Durbin-Watson statistic $d = 2.102$. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity, as assessed by tolerance values greater than 0.1. There were five cases with studentized deleted residuals greater than ±3 standard deviations, with one having a leverage value of .210; however, none of the cases had Cook's distance values above 1 and all were kept in the analysis. Looking at the normal P-P plot of standardized residual for the dependent variable, it can be seen that it fits the expected patter well enough indicating that assumption of normality was met (see Figure 4).

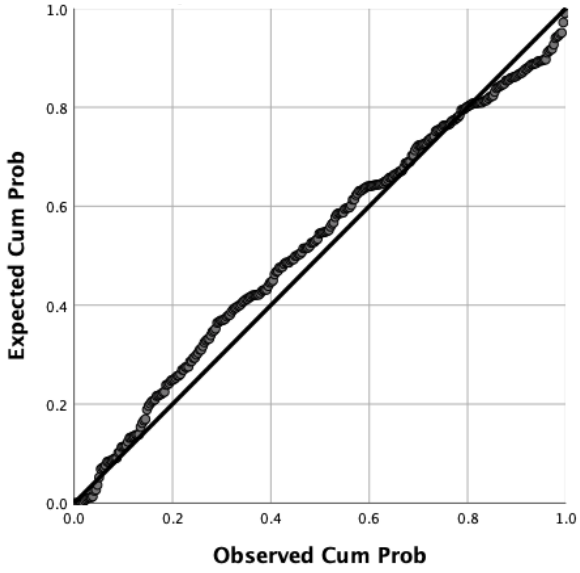


Figure 4. Normal P-P Plot of Regression Standardized Residual on the DV GPA.

Results shown that Model 1, composed with the four Classroom Motivator variables has a statistically significant explanatory power of GPA, F(4, 303) = 2.479, p = .044, and accounted for 3.2% (R^2 = .032) of the variance in the student GPA. Adding the six Faculty Behavior variables for Model 2, resulted in a R^2 change of .005. The entry of these six variables slightly increased the explained variance in students' GPA by 0.5% to a total of 3.7%; however, the increase is not statically significant by the F change, F(6, 297) = .275, p = .948. Finally, the inclusion of demographic and pre-college variables to the prediction of GPA (Model 3) led to a statistically significant increase in 12.6% (R^2 = .126), F(6, 291) = 7.314, p < .001 (see Table 27).

Table 27

Multiple Linear Regression Predicting GPA

Variable	Grade Point Average								
	Model 1			Model 2			Model 3		
	b	β	Sig.	b	β	Sig.	B	β	Sig
Constant	**3.116****		.000	3.116		.000	3.332		.000
Usefulness	.046	.088	.678	.022	.043	.687	.046	.088	.386
Success	**.042***	.080	.030	**.104***	.195	.035	.042	.080	.373
Interest	-.024	-.048	.915	.005	.011	.921	-.024	-.048	.654
Caring	-.004	-.008	.307	-.046	-.102	.322	-.004	-.008	.934
Rapport				-.049	-.096	.532	-.048	-.094	.517
Course Preparation and Delivery				-.028	-.052	.636	-.041	-.076	.472
Encouragement				.004	.010	.901	-.007	-.019	.814
Fairness				-.005	-.010	.913	.029	.062	.476
Time Spent with Student Outside Class				.080	.167	.291	.061	.128	.391
Control				-.014	-.027	.754	-.005	-.009	.916
Male (vs Female)							**-.140****	-.174	.004
Private High School							-.064	-.066	.242
Two or More Calls to passed High School							**-.236****	-.267	.000
First Generation Student							-.012	-.016	.782
Age							-.005	-.078	.186
Students Work							.085	.109	.053
R^2	.032			.037			.163		
F	**2.479***		.044*	1.143		.330	**3.548****		.000
ΔR^2	.032			.005			.126		
ΔF	**2.479***		.044*	.275		.948	**7.314****		.000

Note: N = 307. *p < .05, **p < .0, b = unstandardized regression coefficients; β = standardized regression coefficients.

The ANOVA results show that the Classroom Motivator variables alone (Model 1) as predictors of GPA yielded a significant predictor equation, $F(4, 303) = 2.479$, $p = .044$. The addition of the students' perception of six Faculty Behaviors (Model 2) results in a non-significant equation for prediction, $F(10, 297) = 1.143$, $p = .330$. Not surprisingly, the inclusion of demographic and pre-college data to the full model (Model 3) statistically significantly predicted GPA, $F(16, 291) = 3.548$, $p < .001$ and accounted for 16.3% ($R^2 = .163$) with an adjusted R^2 of 11.7%.

Looking at the standardized regression coefficients (β) for Model 1, Success ($p = .030$) is the only significant predictor of GPA without controlling for individual demographics and background, indicating that a higher level of student expectancy of success, $\beta = .080$, $t = 2.177$, $p = .030$, the higher will be their GPA. Assessing the standardized regression coefficients for the full regression model (Model 3), it can be also seen that just two variables are significant predictors of student GPA, Gender ($\beta = -.174$, $t = -2.893$, $p = .004$) and National High School Test ($\beta = -.267$, $t = -4.759$, $p < .001$). This means that predicted GPA for males is lower than predicted for females (with all other independent variables being held constant). Hence, all other things being equal, males have GPA scores that are on average lower than females. Likewise, predicted college GPA for students who passed all National High School tests in two or more calls is lower than predicted for those students who passed all exams in their first attempt.

Table 28 shows regression coefficients, standard errors, structure coefficients, and squared structure coefficient for the full model. In multiple regression analysis, "interpreting structure coefficients along with β weights is important when trying to determine which variables were influential in producing the overall effect" (Yeatts, Barton, Henson, & Martin, 2017, p. 89).

Hence, it is important to notice that despite for the full model just Gender and National High School Test were statistically significant, and the structure coefficients of those variables indicates a strong relationship with the Ŷ scores accounting for 51.17% and 28.32% of the effect size by itself respectively. The findings reveal that even though the variables of Success and Usefulness did not receive statistically significant beta weight in the full model, the structure coefficients and squared structure coefficients of these two motivator variables indicated that both were good predictors in the model, accounting for 16.88% and 9.57% of unique variance, respectively.

Table 28

Variables Predicting GPA for Full Regression Model

Variables	R^2	*b*	*SE*	β	r_s	r_s^2(%)
	.163					
Constant		3.332	.111			
Usefulness		.046	.053	.088	0.309	9.57%
Success		.042	.048	.080	0.411	16.88%
Interest		-.024	.053	-.048	0.243	5.88%
Caring		-.004	.046	-.008	0.149	2.21%
Rapport		-.048	.075	-.094	-0.007	0.01%
Course Preparation and Delivery		-.041	.057	-.076	-0.020	0.04%
Encouragement		-.007	.031	-.019	0.027	0.07%
Fairness		.029	.041	.062	0.002	0.00%
Time Spent with Student Outside Class		.061	.071	.128	0.047	0.22%
Control		-.005	.043	-.009	-0.042	0.18%
Male (vs Female)		**-.140****	.048	**-.174****	-0.532	28.32%
Private High School		-.064	.055	-.066	-0.136	1.85%
Two or More Calls to passed High School		**-.236****	.050	**-.267****	-0.715	51.17%
First Generation Student		-.012	.043	-.016	-0.101	1.03%
Age		-.005	.004	-.078	-0.228	5.19%
Students Work		.085	.044	.109	0.337	11.33%

Note. b = unstandardized regression coefficients; SE = standard error of the unstandardized regression coefficients; β = standardized regression coefficients; r_s = structure coefficients; r_s^2 = squared structure coefficients.

Chapter 4 Closure

This chapter included the reports of the results obtained of surveying 352 community college students in the Dominican Republic, with the purpose to examine the connection of faculty behaviors, classroom motivators and students' success. To respond each of the four research questions descriptive statistics and analyses results of T-Tests, One Way ANOVAs, Kruskall-Wallis, Kendall's Tau_b, Spearman's Rho, binary logistic and multiple linear regression were presented. In Chapter 5, I will discuss how these findings connects to the existing literature along with recommendations to institutions of higher education.

CHAPTER V

DISCUSSION

This chapter presents the key research findings, how they address my research questions, and how these findings connect to the existing literature, along with recommendations to institutions of higher education and for future research. The purpose of my study was to explore how students from the first and only Dominican community college perceive certain faculty behaviors and classroom motivators, and how the perception of those behaviors and motivators are related to students' academic success. My review of the literature revealed that faculty and student motivation are related to several students' outcomes. However, a knowledge gap regarding which faculty behaviors are connected to student motivation and success, especially in a community college context, confirmed the need for the research. The discussion of my results seek to provide a deeper insight of how the knowledge obtained from my study adds to the overall understanding of faculty behaviors, particularly with relationship to student motivation and academic success in higher education institutions. Finally, limitations of this study, recommendations for leaders in higher education, and suggestions for future studies are also examined.

Analysis and Discussion of Major Results

My respondents included 352 community college students with diverse backgrounds and from different associate degree programs, who were about to graduate from the Dominican community college. The data gathered with a survey were analyzed to address my research questions.

Demographics

The sample of this study has students from the seven academic areas within the DR community college. Out of the 352 participants 36% were enrolled in one of health associate degree programs, 20% in arts, 18.4% in tourism, 15.9 in information technologies, 4.6% in Industry, 4% in Electromechanics, and 0.9% in construction. All these academic areas offer two or more associate degree programs, except construction. More than 62% of the students who completed the survey identify as female and 38% as male. This distribution is almost proportional to the current overall enrollment population in this community college.

Respondents are also a representation of non-traditional students who commonly attend community colleges, which according to the AACC (2018) and the NCES (2014), includes many first-generation college students who have work and family responsibilities, and come from low-income families. Most of my respondents (79%) attended a public high school, which when considering the Dominican context and that this community college is located in an urban area, it means they mostly belong to a low- or middle-income family. The sample also was diverse in age, having individuals ranging from 17 to 55 years old; more than half of the respondents (62.9%) are 17 to 25 years old, 28.9% between 26 and 35, and less than 10% are older than 36 years of age.

Likewise, 51.3% are first generation students, and two-thirds (66%) reported some job responsibilities, working on average 18.6 hours per week. Overall, males reported working twice as many hours as females, with a noteworthy statistically significant difference with males working 12.05 hours on average more per week ($p < .001$). Such hours worked may be impacting students' GPA, whereby my results revealed that the number hours of work per week is a good predictor of GPA, accounting for more than 11% in the unique variance. That could help explain

why female students have on average a higher GPA than males, 3.18 vs 3.00, which was found to be a statistically significant difference ($p < .001$).

Key Findings: Research Question 1

My research question one sought to explore to what extent community college students indicate the presence of various faculty behaviors and classroom motivators. The data were collected using a survey instrument composed of two parts: (a) the Teacher Behavior Checklist (Buskist et al., 2002) and (b) the items for four of the five constructs measured by the MUSIC® inventory (Jones, 2017).

Faculty behaviors within DR community college. Participants reported how often they perceived 28 qualities and corresponding behaviors in the faculty they have had during their courses, determining a behavioral profile for the overall faculty within this community college. Students selected how often they perceived their overall faculty from past and current courses showed each of the 28 qualities and behaviors based on a six-point Likert scale, where (1) was listed as never and (6) was listed as always.

The top ten qualities students in the sample perceived more frequently were: (a) professional, (b) technologically competent, (c) knowledgeable, (d) confident, (e) effective communicator, (f) approachable, (g) sensitive and persistence, (h) punctuality, (i) creative and interesting, and (j) establishes daily and academic term goals.

Figure 5 shows the 28 qualities as reported by the participants, from highest to lowest means, with the top 10 observed listed in green, and the 10 least observed listed near the bottom in red.

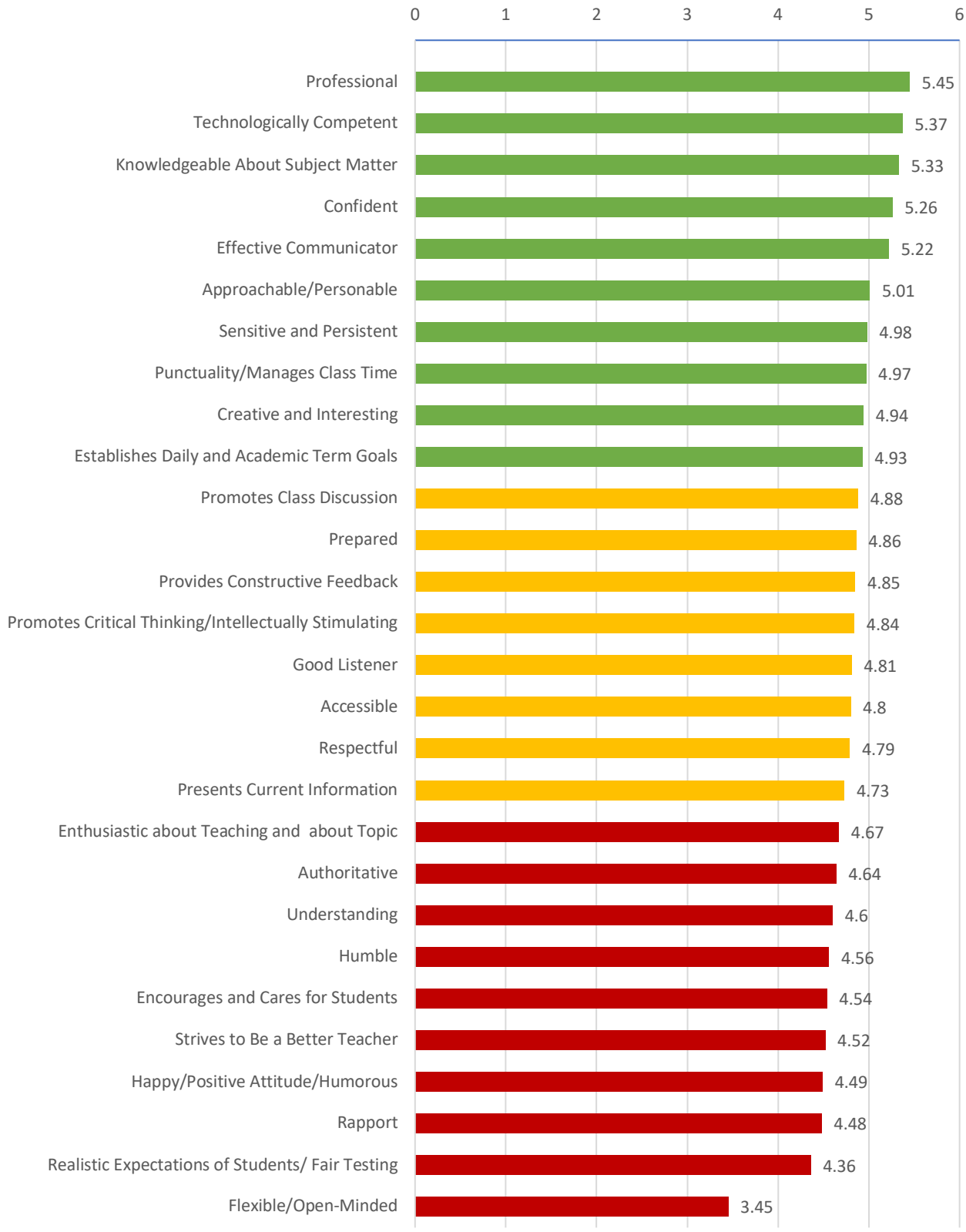


Figure 5. Respondents' perceptions of how often their faculty shown the listed qualities and behaviors.

It is important to highlight, although there is not a precise description of how community college faculty should behave in order to best foster student learning, researchers and higher education stakeholders are interested in this topic. For instance, in different studies using the Teacher Behavior Checklist in the U.S. and Colombia, Ford (2016) and Ripoll-Nuñez et al. (2018) respectively conducted studies seeking faculty and students' perception of qualities for excellence teaching. Figure 6 compares the most frequently observed faculty qualities by my Dominican community college student participants, in comparison to the top qualities some Colombian and U.S. students believe a teacher must possess for being an excellent teacher. The Colombian and U.S. students agree on five from within their top-ten: (a) knowledgeable, (b) effective communicator, (c) confident, (d) respectful, and (e) enthusiastic about teaching and topic; of which, only three are among the most perceived by the Dominican students in my study.

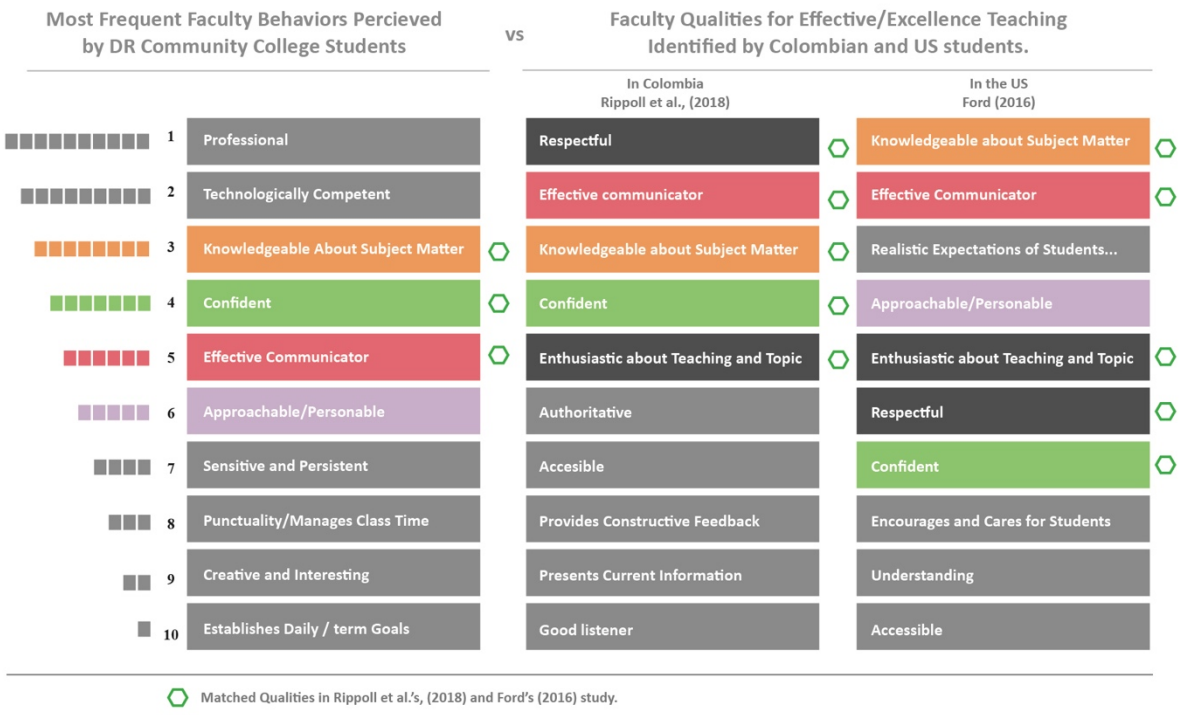


Figure 6. Top 10 comparisons between DR students' perceptions of faculty qualities vs Colombian and U.S. students identified excellent teaching qualities.

In Rippoll-Nuñez et al.'s (2018) and Ford's (2016) studies, faculty also had the opportunity to rank what they believed are the most effective teaching qualities from the TBC list. Figure 7 shows which qualities Colombian and U.S. faculty identified as the top-ten for excellent teaching, compared with the top-ten qualities DR community college students reported their faculty frequently showed. Likewise, Colombian and U.S. faculty agreed on five from their top-ten: (a) knowledgeable, (b) effective communicator, (c) confident, (d) respectful, and (e) promotes critical thinking; of which, only three are among the most perceived by Dominican students.

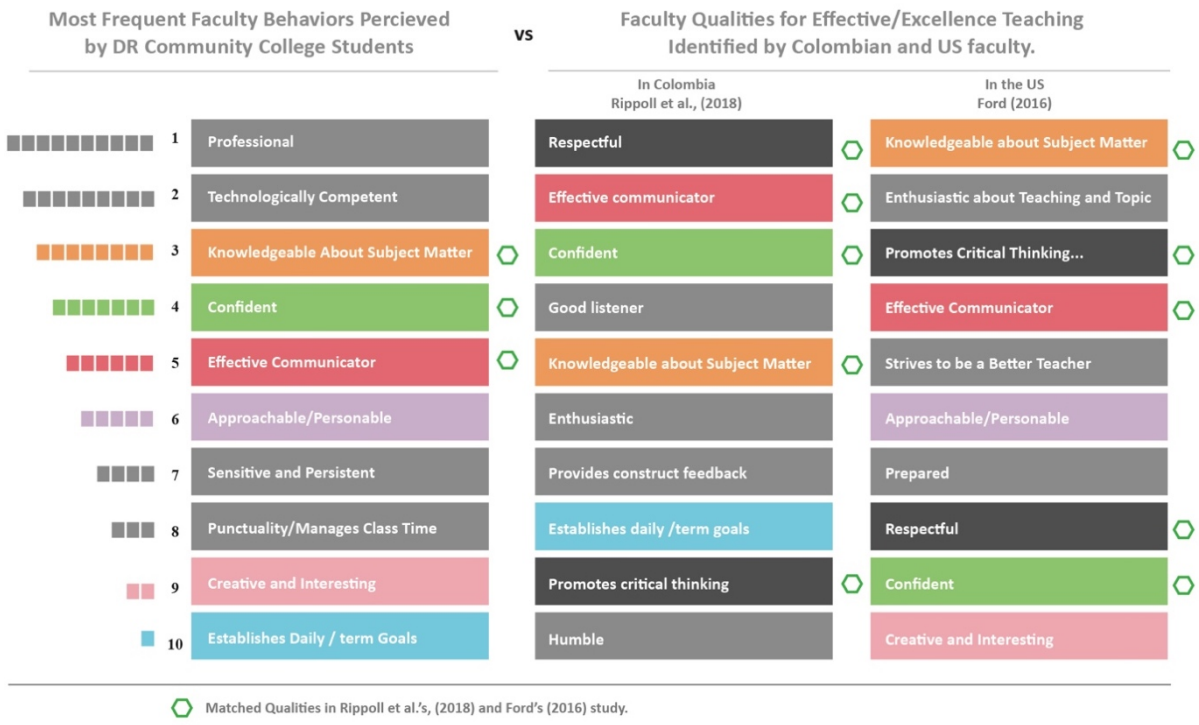


Figure 7. Top 10 comparisons between DR students' perceptions of faculty qualities vs Colombian and U.S. faculty identified excellent teaching qualities.

As another way to summarize these findings, the 28 faculty qualities were collapsed in the six faculty behavioral dimensions (as described by Khandelwal (2009) and as shown in Table

11 within Chapter 4). Using these six categories, the frequency reported by students result in the highest averaged means for course preparation and delivery behaviors and control behaviors. The middle means were for fairness, rapport, and encouragement behaviors, with time spent with student outside class behaviors being the lowest (see Figure 8).

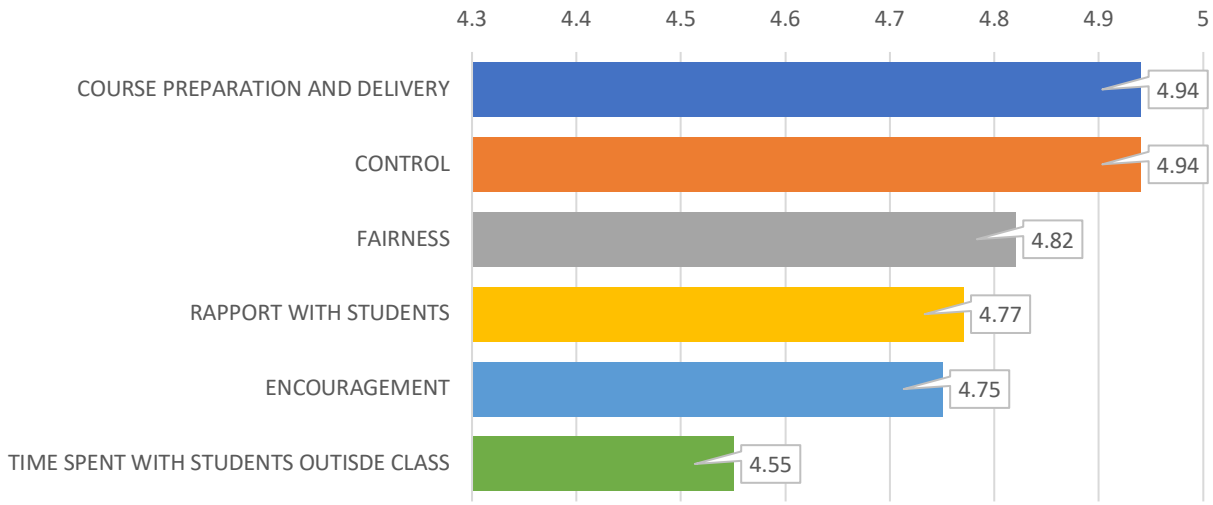


Figure 8. Average mean of the collapsed faculty behaviors.

The low perception of faculty behaviors of spent time with students outside class was expected, due that the overall faculty within the DR community college have an hourly paid contract. Also, this finding is "consistent with decades of previous research, faculty members appear to have relatively little contact with students outside of the classroom" (Cox, McIntosh, Terenzini, Reason, & Lutovsky, 2010, p. 783).

Student levels of classroom motivators. My research question one also sought to examine participants' levels of classroom motivators; measured using four of the five constructs from the MUSIC® model of motivation (Jones, 2009). Participants indicate their agreement or disagreement using a six-point Likert scale from (1) Strongly Disagree to (6) Strongly Agree on 21 statements from the MUSIC® inventory of academic motivation (Jones, 2017). The items were collapsed in its corresponding four scales: Usefulness; which is the level students perceive

the course or content is useful to their future; Success, the degree students perceive they can succeed at the coursework; Interest, measure if the student perceive the instructional methods are interesting; and Caring, the degree the student perceives instructor cares about them.

Figures 9 shows the overall mean on the four constructs, obtained from the participants' responses, indicating that of the four motivational constructs measured, respondents scores had on average a higher level for usefulness (M = 5.59), followed by success (M = 5.54). Success is related to the self-perception of competence, self-efficacy, and self-concept, in other words, this construct measured their own ability to succeed, while usefulness measure student perception of the utility value of their program, "defined as the usefulness of the task in terms of an individual's future goals" (Jones, 2009, p. 275).

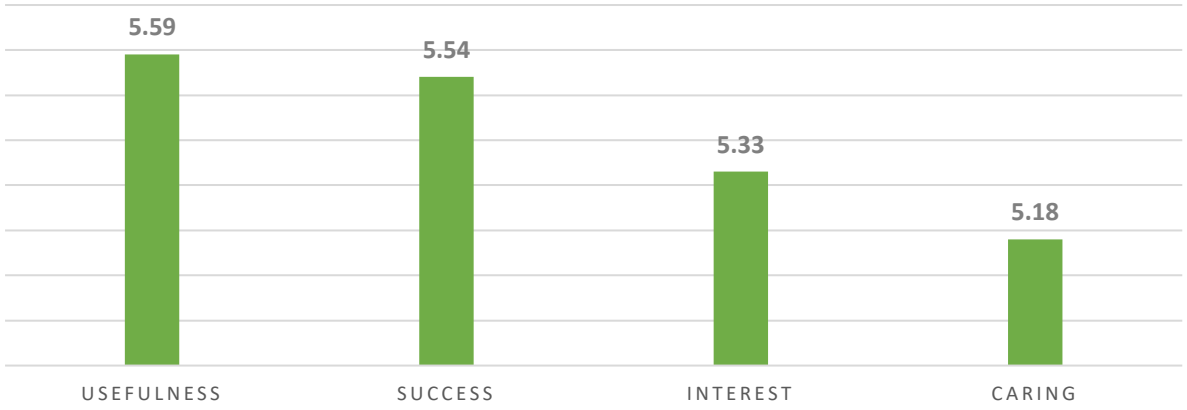


Figure 9. Overall means on the DR Students' Classroom Motivator scores.

Interest and caring, the other two classroom motivator constructs measured, had on average lower means, with 5.33 and 5.18, respectively. This is a very interesting result considering that usefulness and success are based on the utility of the learning and their own expectancy for success. On the other hand, interest and caring measure the students' perception of the actions or behaviors of faculty related to instructional methods, and whether the students perceive their faculty care about student success and well-being.

Key Findings: Research Question 2

My research question two sought to determine if any difference existed in how often participants perceive faculty behaviors and the scores of the classroom motivators, as broken down by gender, age, and academic area. Findings reveal differences in students' perception of faculty behaviors and levels of classroom motivators among groups.

Differences for faculty behaviors and classroom motivators by gender. Looking separately at how female and male students perceive the frequency of faculty behaviors, the ranking in their perception of faculty behaviors is almost equal between males and females. They also almost match the order from the overall student perception of faculty behaviors shown previously in Figure 8.

However, when looking at perception within each of the six faculty behavior categories, there are more visible differences. Female students' perception of behaviors related to course preparation and delivery (M= 4.97), encouragement (M= 4.79), and control (M= 4.98) were higher than male students. Conversely, males, reported a higher perception of faculty behaviors related to rapport with students (M= 4.87), fairness (M= 4.87), and time with students outside class (M= 4.66) than females (see Figure 10). While there are differences, it should be noted that perceptions of faculty behaviors related to spending time with students outside class was the only faculty behavioral dimension perceived statistically significant different (p. = .041) between female and male students.

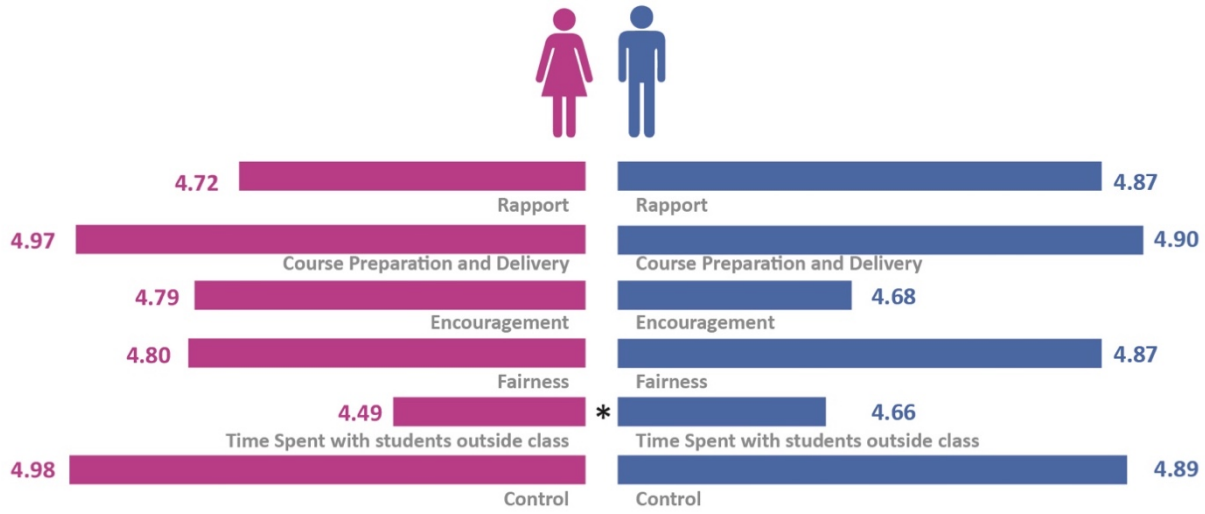


Figure 10. Mean differences in perceptions of faculty behaviors by gender; *p < .05.

My findings are consistent with Cohen's (2018) study, which found that female students are more likely than males to desire engaging with faculty via course-related interactions. Cohen's study also found that males often are engaged with faculty discussing class readings and ideas, and also interacted with faculty more frequently than females outside of class working on other activities besides coursework.

Moving now to the differences in the levels of classroom motivators between males and females (see Figure 11). One-way ANOVA and Mann-Whitney tests revealed statistically significant differences between male and female students in the Usefulness, Success, and Interest components of the classroom motivators. Overall, students' scores on classroom motivators were statistically significant higher for female than males, except for Caring. Findings reveal that within my sample, females in comparison to males reported higher levels of agreement that: (a) the associate degree program is useful to their future ($p = .016$), (b) they can succeed at the coursework ($p = .001$), (c) their faculty instructional methods are interesting ($p = .001$), and (d) their faculty cares about them (p. = 843). These findings aligned with previous studies (e.g., Vecchione et al., 2014) that found females are more intrinsically academic motivated than males;

this could explain why male and female students differ in the scores of Interest (M= .32, 95% CI [.133, .498]) and Success (M= .29, 95% CI [.125, .463]).

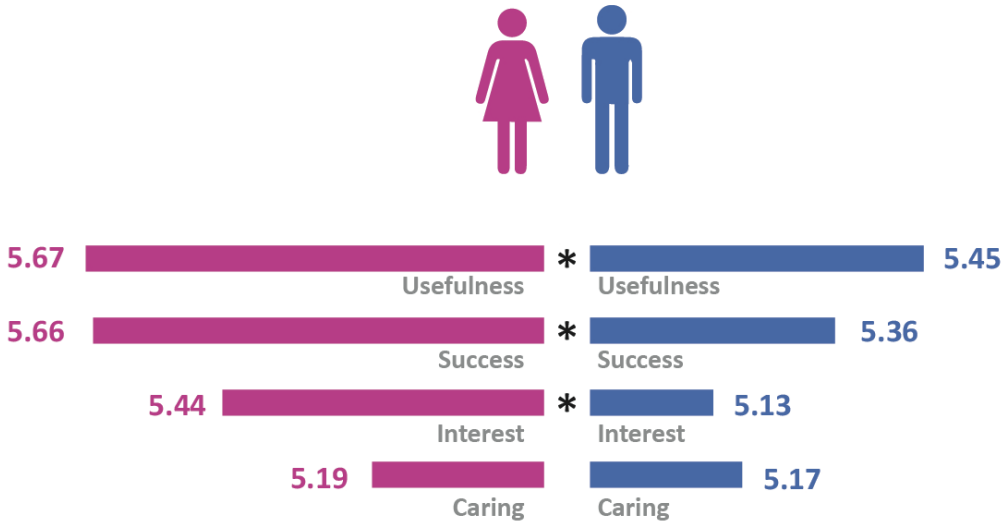


Figure 11. Mean differences in reported levels of classroom motivators by gender*;* *p < .05.

Differences for faculty behaviors and classroom motivators by age. One main characteristic of community colleges is that they serve a diverse population, including many non-traditional students. Within my sample, 37% of the respondents are 26 years or more, whom according to literature, are considered non-traditional students. Results indicate that students in the 26 – 35 and 36 – 45 year age range had a higher perception of faculty behaviors in the six faculty behavioral dimensions (see Figure 12) and higher levels on the four Classroom Motivator scores (see Figure 13) than younger students in the 17 to 25 years old group. Note that the group of those 46 – 55 years old is not included in the graph due a low number within that group.

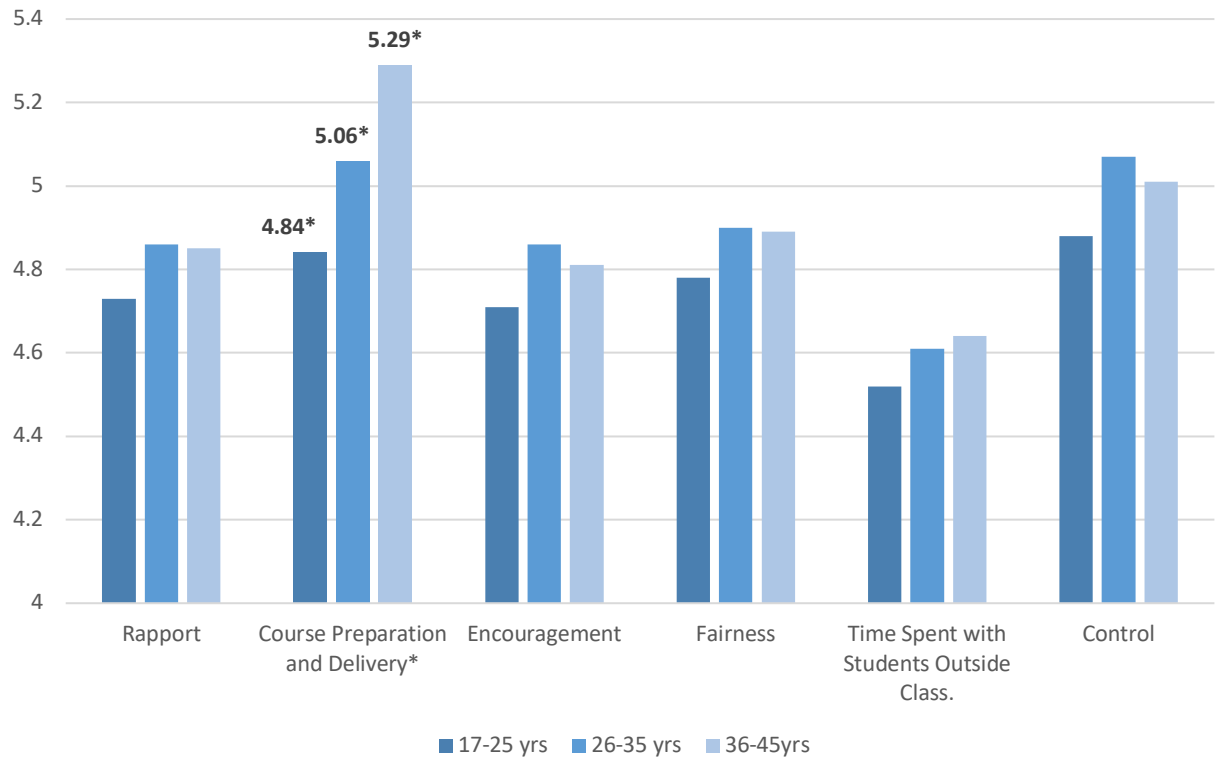


Figure 12. Mean differences on students' perceptions of Faculty Behaviors by age groups.

Results of one-way ANOVAs and Kruskal-Wallis analyses revealed that a statistically difference existed in students' perception of faculty behaviors related to Course Preparation and Delivery (p.= .004; Figure 12) and in their level of Interest (p. =.010; Figure 13) among age groups. The differences found in my study about students' perception of faculty behaviors and classroom motivators are related, and could be explained by the results found in some previous research. Students over 25 years old tend to interact more in classes with faculty than traditional younger students (Fritschner, 2000), and also are higher academically motivated than younger students (Isacco & Morse, 2015; Kimmel, Gaylor, College, & Hayes, 2016). Hence, I hypothesize that the higher perception of faculty behaviors from students 26 years or older is because those students perceive they have more academic or in-classroom interactions with faculty, which consequently positively influences their motivation.

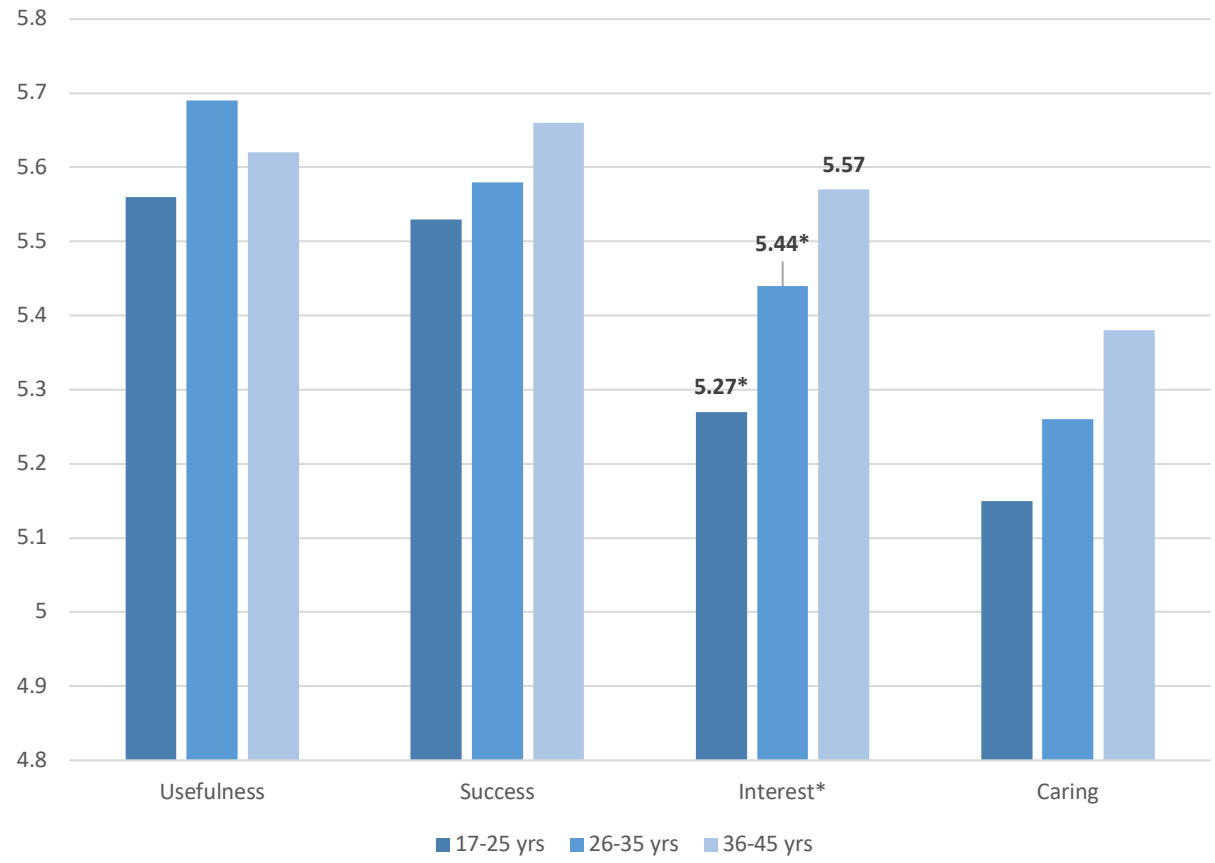


Figure 13. Mean differences on students' classroom motivator scores by age groups.

Differences for faculty behaviors and classroom motivators by academic area. The DR community college offers 27 associate degree programs grouped into seven academic areas: arts, health, information technologies, electromechanics, industry, tourism, and construction. Perceptions of faculty behaviors and their classroom motivator scores were also tested for differences among students enrolled across these college academic areas. From the overall respondents 36% were enrolled in health, 20% in arts, 18% in tourism, 16% in information technologies, 5% in industry, and 0.9% in construction. The latter (construction) will be excluded from this discussion due to a low number of responses (n= 3).

The data analysis reveals that Health students perceive more often faculty qualities and behavior in almost five of the six faculty behavioral categories: Rapport, Course Preparation and

Delivery, Encouragement, Fairness, and Control (with the Health student mean for Control being just slightly less than for Tourism students). Of these differences, 'Course Preparation and Delivery' was the only one with a statistically significant difference (see Figure 14). However, post hoc analysis within this variable did not show any statistically significant difference among groups.

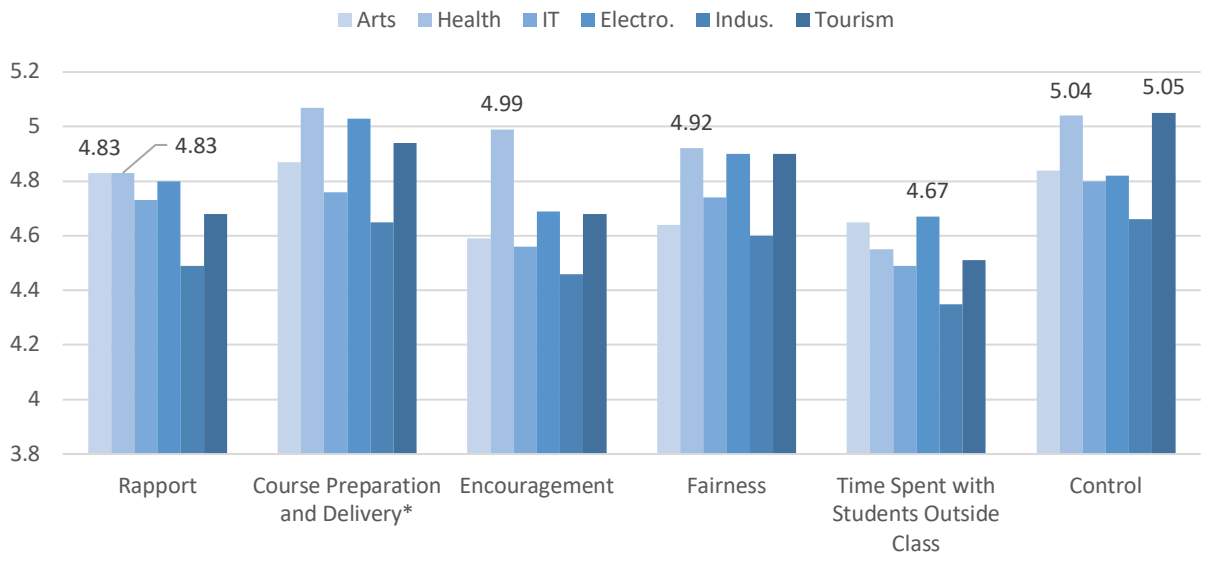


Figure 14. Mean differences on students' perceptions of Faculty Behaviors by academic area.

Regarding the differences found in students' classroom motivators scores cross academic areas, the findings are consistent with those reported for faculty behaviors; the frequency in the perception of faculty qualities and behaviors seems to be linearly correlated with classroom motivators scores. Figure 15 shows the mean differences on the students' classroom motivators scores where Health students have a higher score in three of the four classroom motivators constructs (Usefulness, Success, and Interest). However, those difference were not statistically significant, except for the Interest scores (p. = .004). Post-hoc analysis show that Interest scores of Information Technologies and Arts students, were statistically significant lower with the scores reported by Health students.

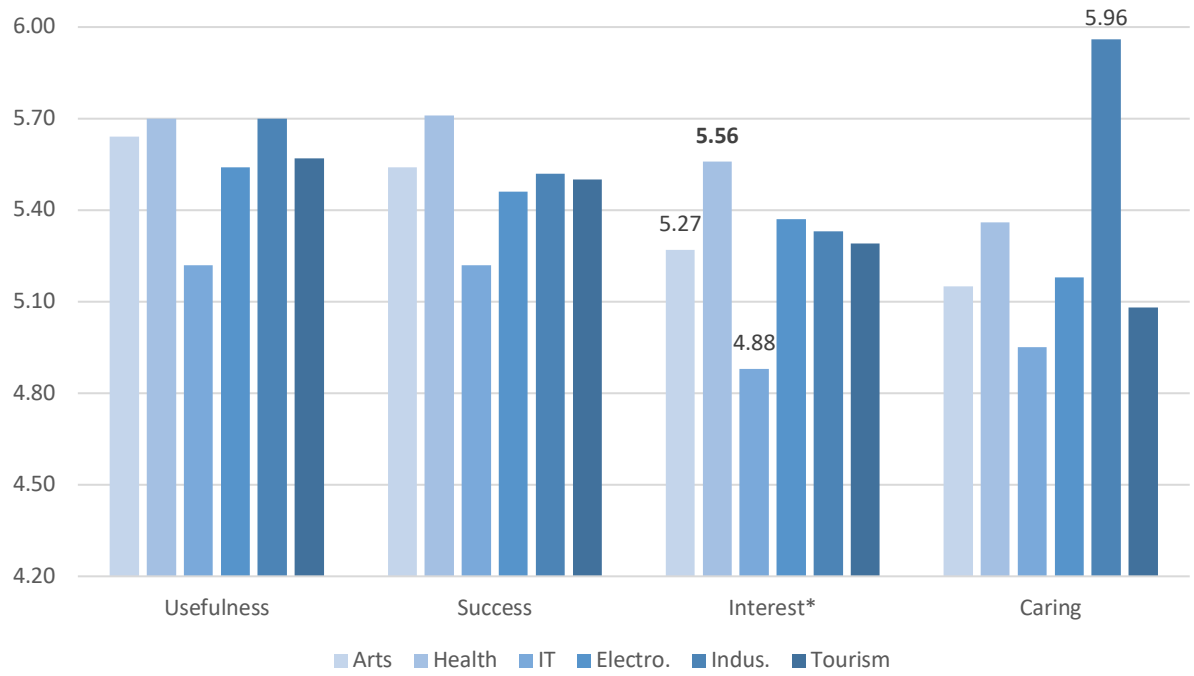


Figure 15. Mean differences on students' classroom motivator scores by academic area.

Key Findings: Research Question 3

Research question 3 sought to determine the strength and nature of the relationship between the six collapsed faculty behavioral categories and the four classroom motivators. Results from the Canonical Correlation Analysis shown that over 48% of the variance in the students' perception of Faculty Behaviors and students' Classroom Motivators scores was shared. This is consistent with the body of research supporting that faculty influence students' motivation in several ways (Chemosite & Rugutt, 2009; Komarraju et al., 2010; Trolian et al., 2016; Wilson & Ryan, 2013).

The results supported two unique patterns of relationship between the students' perception of Faculty Behaviors and students' Classroom Motivators scores, since the first two of the four functions were statistically significant (as presented in Table 21 in Chapter 4). Function 1 showed that about two-fifths of the variance in students' classroom motivators scores

could be accounted for by their perception of faculty behaviors (see Figure 16). This function reflects other research suggesting that student's perception of a course (e.g., faculty behaviors) may moderately impact student motivation (Jones & Carter, 2019; Komarraju et al., 2010; Trolian et al., 2016;).

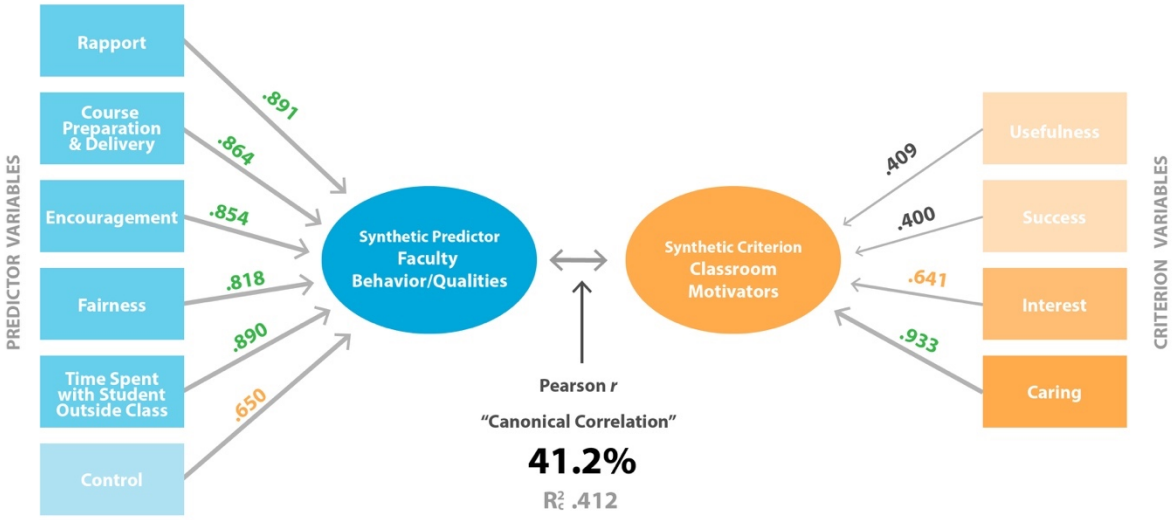


Figure 16. Diagram Canonical Function 1 shared variance and structure coefficients (r_s).

Function 1 shows how the primary contributors to the synthetic predictor variable of faculty behaviors are Rapport, Course Preparation and Delivery, Fairness, and Time Spent with Students Outside Class, ($r_s > .800$) followed by the Control ($r_s = .650$) behavioral category. Looking at the criterion variable set, the main contributors of the synthetic criterion variable was Caring ($r_s = .933$) and Interest ($r_s = .641$), followed by Usefulness and Success ($r_s \geq .400$). I interpreted this function as the influence of the faculty supportive behaviors on students' academic motivation. This confirms that faculty supportive behaviors constitute an excellent teaching practice that foster students' academic motivation (Groccia, Ismail, McConner, Ford, & Noll, 2018; Trolian et al., 2016).

Results of the canonical Function 2 indicate that about 11% of the variance in students' classroom motivators scores could be accounted for by their perception of faculty behaviors (see Figure 17). The structure coefficient in the second canonical function shows that Control (r_s = -.502), was the dominant predictor within the predictor variable set; while Interest and Success were the variables of relevance (r_s > .400). Control was positively related to Interest and Success as they have the same sign (negative). Function 2 could be interpreted as the faculty initiatives fostering the learning environment, as faculty control behaviors accounted for a large variance in student motivation (Cakir, 2015). Especially for those students who have lower levels of self-efficacy and self-regulation in completing strategies to be successful (Shell & Husman, 2008); something that is somehow true for an important number of students within the DR community college context.

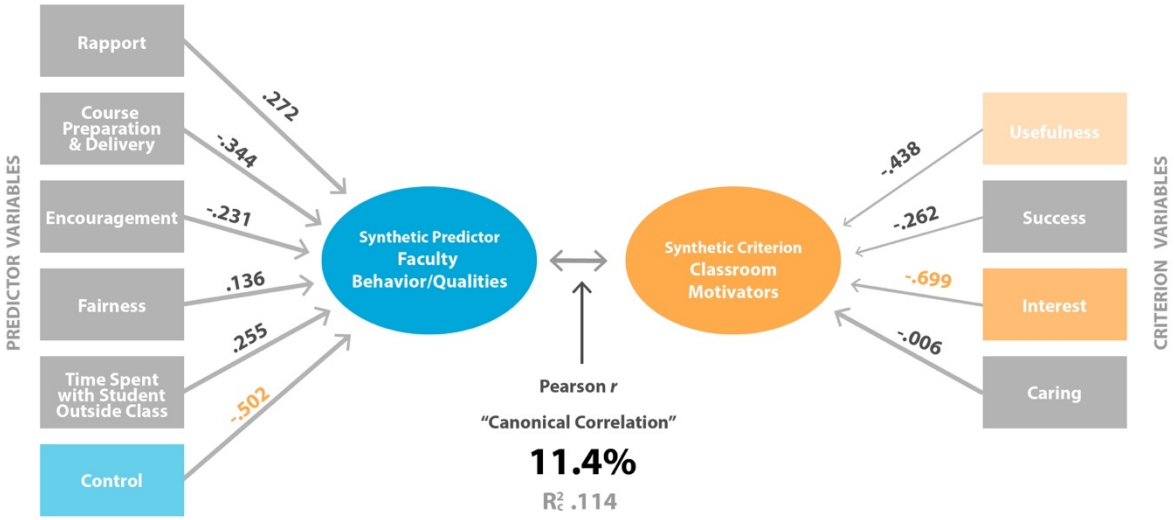


Figure 17. Diagram of Canonical Function 2 shared variance and structure coefficients (r_s).

Overall, looking at the communality coefficients which is "the proportion of variance in each variable that is explained by the complete canonical solution or at least across all the

canonical functions that are interpreted" (Sherry & Henson, 2005, p. 40). The six faculty behavioral dimensions used as a predictor variable were useful to the model, mainly Course Preparation and Delivery, Time Spent with Student Outside Class, Rapport, and Encouragement (h^2 = > 75%), as shown in Table 22. For the criterion variable, Interest and Caring were clearly the most useful variables within this set variables set of looking at their communalities coefficients (h^2) of 90.50% and 88.46% respectively.

Key Findings: Research Question 4

The last research question sought to determine to what extent faculty behaviors and the level of student classroom motivators could predict students' intention to persist and GPA. Several logistic regressions models and a hierarchical multiple linear regression were used to answer research question four.

Intention to persist in college. Results of the logistic regression indicate that 10.3% of the variation in student's intention to persist in college was explained by the model, where encouragement-related faculty behaviors were the only statistically significant predictor on the student intention to persist in college. This means that holding constant the other variables in the model (see Table 26 in Chapter 4), a one-point increase in the student perception of faculty behaviors, the likelihood for a student to report their agreement to the odds persist in college until graduation would increase by 62% (see Figure 18). This suggests the more the students perceive faculty encouragement behaviors, the more likely they are to report having commitment to persist in college until graduation.

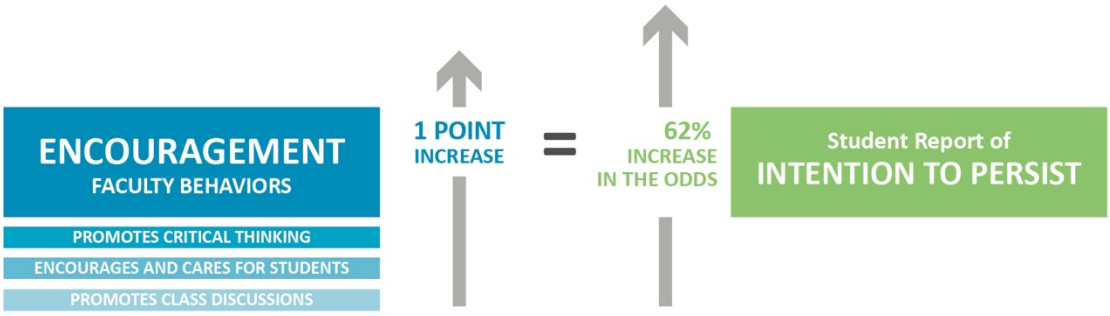


Figure 18. Significant predictor variable for Intention to Persist.

The results are consistent with several studies that identify faculty supporting or encouragement behaviors in having a clear relationship to student persistence and retention (Dwyer, 2017). Encouragement faculty behaviors "such as showing appreciation for the student's hard-work and 'commending them on a job-well done,' were very important" (White, 2018, p. 111). When faculty shows encouraging behaviors towards students, students increase and feel encouraged to confront what they think are barriers for successfully achieving their degree goal (Dudley et al., 2015; Hlinka, 2017; Walker & Gleaves, 2015; Woods et al., 2012).

Grade point average. Finally, results of the hierarchical multiple regression determined that when just the classroom motivators scores are considered, students' Success scores predicted and accounted for 3.2% of the variance on their GPA. While, when other factors are included, students' prior academic knowledge is the most significant predictor for GPA; however, usefulness and success were good predictors of student's GPA based on structure and squared structure coefficients. This is consistent with the "zone of proximal development" where the coursework is at level of challenge students perceived they can be successful at, that increase their motivation and in consequence their performance (Roksa et al., 2017; Vygotsky, 1978).

Adding the six variables of faculty behaviors to build a second regression model yielded a non-significant regression equation, but it slightly increased the amount of variance accounted

for to 3.7%; this could be due to the high relationship among the classroom motivators and the faculty behaviors variables. Hence, results suggest that students' perception of faculty behaviors did not significantly predict students' GPA; this confirms Hoffmann and Oreopoulos's (2009) study that found student achievement is only slightly influenced by college faculty, disputing Wirt and Jaeger (2014) that found a significant relationship between faculty-student interaction and students' GPA. However, faculty may influence students' levels of expectancy for success, situational interest, utility value, and caring, that in turn impact student performance (Hulleman et al., 2010; Canning et al., 2018).

Finally, to construct a full model, the variables of Male (vs female), Private School, Two or More Calls to Passed High School, First Generation Student, Age, and Student Working Hours, were added as control variables to the last regression model (as shown in Table 27 in Chapter 4). Unsurprisingly, the full model increased the prediction explanatory power to 12.6% ($R^2 = .126$) for a statistical significant equation $F(16, 291) = 3.548$, $p < .001$, accounting for 16.3% with an adjusted R2 of 11.7% resulting in: Predicted GPA= 3.332 – (0.140 x Male) – (0.267 x Two or More call to Passed High School)

However, despite none of the classroom motivators being statistical predictors of GPA in the full regression model, looking at the structure coefficients and the squared structure coefficients reveals that Success, Usefulness, and Interest, as well as the students' working hours per week, were good predictors in the model. Figure 19 show the unique variance in the GPA scores accounted for each of the variables in isolation.

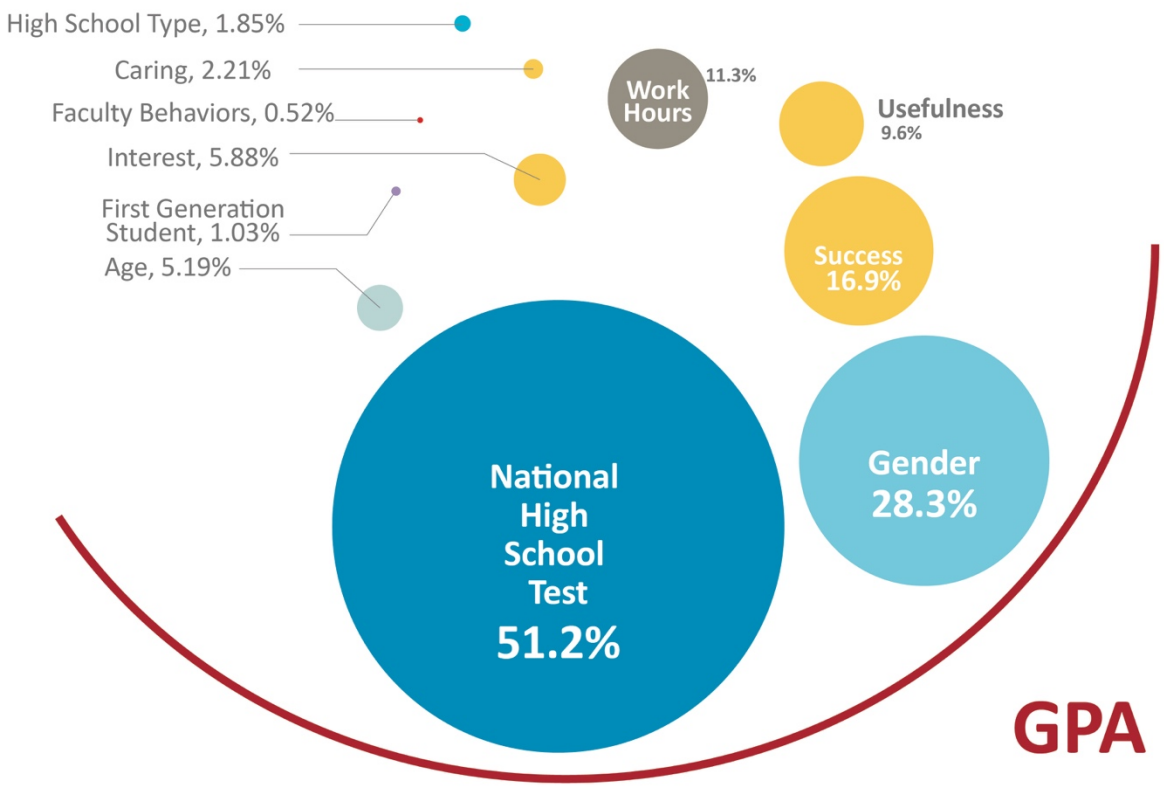


Figure 19. Effect size (r_s^2) on GPA by each variable in isolation for the full model.

Summary of Major Findings

Results have revealed that numerous complex factors influence student success and motivation. However, a percentage in the variance in student success is explained by factors over which higher education institutions have some control, and that could be improved to address issues of student persistence and performance. My findings reveal that 48.5% of the variance in classroom motivators is explained by faculty behaviors. There are specific kinds of faculty behavior that impact student outcomes, whereby when faculty frequently show encouragement behaviors, students' intention to persist in college also increase by at least in 10%.

I also found that the main contributors in students' classroom motivators are those directly related to faculty: Interest and Caring. Interest measures the degree a student perceives

the instructional methods as interesting, while Caring is the degree students perceive their faculty cares about their well-being. Interest and Caring were the most important variables within the study, according to the canonical communality coefficient (h2) of 90.50 and 88.46, respectively. However, even though interest and caring were the most important variable within the Classroom Motivators, the other two Success and Usefulness were statistically significant related and could also be considered good predictors of students' grade point average.

Recommendations for Higher Education

Higher education institutions, leaders, and faculty must take advantage of understanding how faculty behaviors and classroom motivators are connected to student success. Findings from my study could be useful to implement plans, programs, and strategies for fostering students' success. Therefore, after having a more in-depth insight into the findings of my study, I would like to make the following general recommendations for intuitions, leaders, and faculty in higher education.

Suggestions for Higher Education Leaders

First, higher education institutions must regularly offer programs for faculty development that foster the awareness of their key role in student's motivation, persistence, and success, considering their behaviors account a 48.5% in the variance of student levels of motivation.

Second, faculty development initiatives most focus on instructional methods, tools, and strategies to prepare and deliver classes effectively. These qualities are essential for faculty; however, I suggest that faculty development also includes strategies that allow them to establish more rapport with students; being more understanding, approachable, and accessible with students and showing a confident, happy and positive attitude inside and outside the classroom.

Third, colleges and universities must guarantee the appropriate resources and create an organizational climate where faculty can accomplish their role with excellence, as this study reveals the importance of Encouragement, Rapport, and Time Spent with Student behavioral dimension. Colleges need to provide faculty with the appropriate time that allows them to be more approachable and accessible to students beyond the time in the classroom. Also, college administrators need to define the appropriate class size in the number of students enrolled in each class section, allowing the faculty to have better interactions with students in frequency and quality.

Finally, faculty development programs and units have to provide reliable and quality service supporting and helping faculty to implement and improve their practice beyond professional or technical dimensions. Such programs and formal structure should consider small networks of faculty with different backgrounds and skills for sharing their experience, allowing them to identify opportunities of improvement and act in consequence in a timely manner (Bolman & Deal, 2013; Bush, 2011; Kotter, 2014).

Recommendations for Faculty

My study affirms the key role faculty play in student motivation, persistence, and success. All faculty behavioral dimensions considered in my study are highly and positive correlated with students' classroom motivators. As mentioned earlier, faculty encouragement behaviors are a good and statistically significant predictor of student intention to persist. Hence, implementing more supporting and caring behaviors makes a significant difference in students' outcomes. For example, knowing students' names, providing constructive feedback, and writing comments on students' returned work, are possible with a manageable class size. These actions

are an example of specific qualities and faculty behaviors that my results indicate as highly positive related to students' levels of interest and caring.

I also found that students' expectancy for success and their perception of usefulness of coursework are good predictors of GPA. Both, success and usefulness are significant correlated with faculty behaviors.

It is important to understand that faculty behaviors and their instructional methods do not have the same effect on all students. For instance, my findings reveal that for some students, the perception of faculty authoritative or control behaviors have a significant impact on their level of interest and, in consequence, in their motivation and performance. For example, when faculty have a very organized syllabus, have clear course rules, and maintain classroom order, this is connected to increased student levels of interests and usefulness, especially for students lacking self-regulation and self-efficacy to complete their coursework. Hence, considering the diversity of students in a classroom, faculty have to be aware of the class and the students they serve, and behave appropriate.

Recommendations for the DR Community College

The DR community college (ITSC) is the first institution of its kind in this Caribbean country, that similar to most community colleges in other countries, must offer open access, and lower-cost education as an opportunity to obtain a postsecondary degree for disadvantage individuals (Bok, 2013; Cohen et al., 2014; Mellow & Heelan, 2014). My research was not intended to measure or evaluate the results of this community college, but to capture data that can provide broader information on how to foster student success in such environments.

The DR has the opportunity to build an educational model that can serve as a referent for other institutions in the country. However, considering that the community college model is

fairly new in the DR, most staff and faculty have little experience administrating and teaching in a community college context. Given that the implementation of this new model is in the DR's plan for national development, leaders within this community college must connect to push for support to support faculty within the country's first community college, and push for the spread of this model throughout the DR.

Finally, a more specific suggestion for the DR community college is to highlight that academic vitality is dependent upon faculty members' interest and expertise. Pondering my findings of faculty behaviors accounting for 48.5% in the variance of student levels of motivation, and that faculty plays a key role in the achievement and learning engagement of the students (Tovar, 2015; Umbach & Wawrzynski, 2005), I recommend the implementation of a faculty development program for promoting academic excellence and innovation in this community college.

A faculty development program has to respond to the context, faculty, and institutional needs. A unit should lead it with the appropriate financial and human resources to accomplish this challenge (Ratka, Zorek, & Meyer, 2017); hence, as this study reveals the importance of Encouragement, Rapport, and Time Spent with Student behavioral dimensions. Colleges need to provide faculty with the appropriate time that allows them to be more approachable and accessible to students beyond the time in the classroom. Additionally, the faculty development program for the DR community college should build the process and strategies to foster, measure, and assess educator's performances that have been demonstrated to foster engagement and motivation within students. Such professional development initiatives must also have the proper flexibility to adapt to a fast-changing environment (Kotter, 2014), such as those within a community college.

Limitations and Delimitations

This study has provided several insights, but there are delimitations and limitations to these findings. The most remarkable is that the population for this study is the Dominican community college and my findings are delimited to that specific context; hence, results cannot be generalized beyond that. Another noteworthy limitation is that for the participants, it may not have been easy to rate the frequency of faculty behaviors considering the overall faculty. Students had to reflect backwards, and their perception could reflect their current experience instead of the overall experience. As another limitation, the intention to persist in college was measured using a single Likert item, and perhaps a scale based on several items might have been better.

Implications for Future Research

The findings of this research reveal other opportunities to continue narrowing the knowledge gap regarding which faculty behaviors influence student motivation and success, especially in a community college context. As the sample for this study delimits the results, replication of this study could serve as confirmation of these findings. Future research might consider observing faculty behaviors and gathering data to how such behaviors influence students' outcomes. Also, it would be essential to know which faculty behaviors or characteristics jeopardize the faculty-student interaction and contributes to a lack of motivation for students in community colleges.

This study used a non-experimental research design; further research may consider other approaches that allowed to account for other factors influencing students' perceptions of faculty, student motivation, and faculty behaviors, including the cultural and organizational context. Also, looking at this issue from other perspectives using qualitative and experimental approaches

to expand literature is a suggestion that could be considered by researchers. In the DR, further research needs to focus on deeper understanding of what faculty behaviors higher education institution, college students, and faculty expect as excellent faculty behaviors to serve the diverse and non-traditional population at community colleges. The data gathered for the Dominican community college database, in the time that has operating, constitutes a good source for research about how faculty, staff, and others college and external impact student motivation, persistence, performance, and success.

Concluding Thoughts

The findings from my study confirms the relevance of faculty for achieving the needs and goals of society, which includes students seeking a postsecondary education and being successful in that goal. Faculty's role is even more important in a community college context that commonly serves non-traditional students and individuals with poorer socio-economic backgrounds. It is well known that motivation is an important factor for achieving success, and my findings reveal that faculty behaviors explain 48% of variance in levels of classroom motivators, and 10% of the intention to persist, which in turn impact students' GPA. Knowing that various faculty behaviors are truly connected to student motivation, persistence, and success, higher education institutions must create the conditions, plans, and programs that help all faculty implement such behaviors.

REFERENCES

Addison, W. E., Stowell, J. R., & Reab, M. D. (2015). Attributes of introductory psychology and statistics teachers: Findings from comments on RateMyProfessors.com. *Scholarship of Teaching and Learning in Psychology*, *1*(3), 229–234. https://doi.org/10.1037/stl0000034

Alexander, A., Karvonen, M., Ulrich, J., Davis, T., & Wade, A. (2012). Community college faculty competencies. *Community College Journal of Research and Practice*, *36*(11), 849–862. http://doi.org/10.1080/10668926.2010.515511

Alliance, B., & Matthews, D. (2012, August 6). Daytona State serves as model for college in Dominican Republic. *The Daytona Beach News Journal*. Retrieved from https://www.news-journalonline.com/news/20120806/daytona-state-serves-as-model-for-college-in-dominican-republic

American Association of Community Colleges. (2018). *Fast facts 2018*. Retrieved from https://www.aacc.nche.edu/wp-content/uploads/2018/04/2018-Fast-Facts.pdf

Apolinar, B. (2013, September 17). El 53% de los estudiantes universitarios del país deja la carrera iniciada [53% of college students in the Dominican Republic drop out.] Listin Diario. Retrieved from http://www.listindiario.com/la-republica/2013/09/17/292465/el-53-de-los-estudiantes-universitarios-del-pais-deja-la-carrera-iniciada

Beerkens, M., & Udam, M. (2017). Stakeholders in higher education quality assurance: Richness in diversity? *Higher Education Policy*, *30*(3), 341–359. https://doi.org/10.1057/s41307-016-0032-6

Bers, T. H., & Smith, K. E. (1991). Persistence of community college students: The influence of student intent and academic and social integration. *Research in Higher Education*, *32*(5), 539-556. https://doi.org/10.1007/BF00992627

Bess, J. L., & Dee, J. R. (2012). *Understanding college and university organization: Theories for effective policy and practice.* Sterling, VA: Stylus.

Blue, L. (2012*). Motivation, not IQ, matters most for learning new math skills*. Retrieved from http://healthland.time.com/2012/12/26/motivation-not-iq-matters-most-for-learning-new-math-skills/

Bok, D. (2013). *Higher education in America*. Princeton University Press.

Bolman, L. G., & Deal, T. E. (2013). *Reframing organizations. Artistry, choice, and leadership* (5th ed.). San Francisco, CA: John Wiley & Sons.

Bush, T. (2011). *Theories of educational leadership & management* (4th ed.). Thousand Oaks, CA: SAGE Publications.

Buskist, W., & Keeley, J. W. (2018). Searching for universal principles of excellence in college and university teaching. *New Directions for Teaching and Learning*, *2018*(156), 95–105. https://doi.org/10.1002/tl.20321

Buskist, W., Sikorski, J., Buckley, T., & Saville, B. (2002). Elements of master teaching. In S. Davis & W. Buskist (Eds.), *The teaching of psychology: Essays in honor of Wilbert J. McKeachie and Charles L. Brewer* (pp. 27–39). Mahwah, NJ: Erlbaum

Cakir, S. G. (2015). Authoritative approach and student empowerment among university students. *Procedia - Social and Behavioral Sciences*, *186*, 151–154. https://doi.org/10.1016/j.sbspro.2015.04.078

Canning, E. A., Harackiewicz, J. M., Priniski, S. J., Hecht, C. A., Tibbetts, Y., & Hyde, J. S. (2018). Improving performance and retention in introductory biology with a utility-value intervention. *Journal of Educational Psychology*, *110*(6), 834–849. https://doi.org/10.1037/edu0000244

Chemosite, C., & Rugutt, J. (2009). What motivates students to learn? Contribution of student-to-student relations, student-faculty interaction and critical thinking skills. *Educational Research Quaterly*, *32*(3), 16–28.

Cherif, A. H., Movahedzadeh, F., Adams, G. E., & Dunning, J. (2013, April 4th). *Why do students fail? Students' perspective.* Retrieved from http://www.abourcherif.com/pdfs/Why%20Do%20Students%20Fail%20Final%20April%208%202013%20doc.pdf

Clapper, T. C. (2014). Situational interest and instructional design: A guide for simulation facilitators. *Simulation & Gaming*, *45*(2), 167–182. https://doi.org/10.1177/1046878113518482

Cohen, A. M., Brawer, F. B., & Kisker, C. B. (2014). *The American community college* (6th ed.). San Francisco, CA: Jossey-Bass.

Cohen, E. D. (2018). Gendered styles of student-faculty interaction among college students. *Social Science Research*, *75*, 117–129. https://doi.org/10.1016/j.ssresearch.2018.06.004

Cox, B. E., McIntosh, K. L., Terenzini, P. T., Reason, R. D., & Lutovsky Quaye, B. R. (2010). Pedagogical signals of faculty approachability: Factors shaping faculty-student interaction outside the classroom. *Research in Higher Education*, *51*(8), 767–788. https://doi.org/10.1007/s11162-010-9178-z

Creswell, J. W. (2008). *Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE.

Demetriou, C., & Schmitz-Sciborski, A., (2011). *Integration, motivation, strengths and optimism: Retention theories past, present and future*. Retrieved from https://studentsuccess.unc.edu/files/2012/11/Demetriou-and-Schmitz-Sciborski.pdf

Dillman, D. A., Smyth, J. D., & Christiam, L. M. (2009). *Internet, mail and mixed-mode surveys: The tailored design method* (3rd ed.). Hoboken, NJ: Wiley.

Dudley, D. M., Liu, L., Hao, L., & Stallard, C. (2015). Student engagement: A CCSSE follow-up study to improve student engagement in a community college. *Community College Journal of Research and Practice*, *39*(12), 1153–1169. https://doi.org/10.1080/10668926.2014.961589

Dwyer, T. (2017). Persistence in higher education through student–faculty interactions in the classroom of a commuter institution. *Innovations in Education and Teaching International*, *54*(4), 325–334. https://doi.org/10.1080/14703297.2015.1112297

Ford, C. R. (2016). *Identifying effective teaching behaviors of pharmacy faculty master teachers*. (Doctoral dissertation). Retrieved from http://etd.auburn.edu/xmlui/bitstream/handle/10415/5255/Identifying%20Effective%20Teaching%20Behaviors%20of%20Pharmacy%20Faculty%20Master%20Teachers.pdf?sequence=2&isAllowed=y

Frey, B. (2018). *The SAGE encyclopedia of educational research, measurement, and evaluation* (Vols. 1-4). Thousand Oaks, CA: SAGE Publications, Inc. doi: 10.4135/9781506326139

Fritschner, L. M. (2000). Inside the undergraduate college classroom. *The Journal of Higher Education*, *71*(3), 342–362. https://doi.org/10.1080/00221546.2000.11780826

Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston, MA: Pearson.

Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's Alpha reliability coefficient for Likert-Type scales. In *2003 Midwest Research to Practice Conference in Adult, Continuing, and Community Education* (pp. 82–88).

Groccia, J. E., Ismail, E. A., McConner, M., Ford, C. R., & Noll, K. (2018). Perceptions of excellent teachers: International, HBCU, and health professions perspectives. *New Directions for Teaching and Learning*, *2018*(156), 85–94. https://doi.org/10.1002/tl.20320

Hagenauer, G., & Volet, S. E. (2014). Teacher-student relationship at university: An important yet under-researched field. *Oxford Review of Education*, *40*(3), 370–388. https://doi.org/10.1080/03054985.2014.921613

Hawley, T., & Harris, T. (2005). Student characteristics related to persistence for first-year community college students. *Journal of College Student Retention*, 7(1–2), 117–142. http://doi.org/10.1080/13651500600578904

Heelan, C. M., & Mellow, G. O. (2017). Social justice and the community college mission. *New Directions for Community Colleges*, *2017*(180), 19–25. https://doi.org/10.1002/cc.20277

Heng, K. (2014). The effects of faculty behaviors on the academic achievement of first-year Cambodian urban university students. *Educational Research for Policy and Practice*, *13*, 233–250. https://doi.org/10.1007/s10671-013-9159-z

Hlinka, K. R. (2017). Tailoring retention theories to meet the needs of rural Appalachian community college students. *Community College Review*, *45*(2), 144–164. https://doi.org/10.1177/0091552116686403

Ho, R. (2014). *Handbook of univariate and multivariate data analysis with IBM SPSS* (2nd ed.) Boca Raton, FL: CRC Press.

Hoffmann, F., & Oreopoulos, P. (2009). Professor qualities and student achievement. *The Review of Economics and Statistics*, *91*(1), 83–92.

Hosmer, D. W., Jr., Lemeshow, S., & Sturdivant, R. X. (2013). *Applied logistic regression* (3rd ed.). Hoboken, NJ: Wiley.

Hulleman, C. S., Godes, O., Hendricks, B. L., & Harackiewicz, J. M. (2010). Enhancing interest and performance with a utility value intervention. *Journal of Educational Psychology*, *102*(4), 880–895. https://doi.org/10.1037/a0019506

Hulleman, C. S., Kosovich, J. J., Barron, K. E., & Daniel, D. B. (2017). Making connections: Replicating and extending the utility value intervention in the classroom. *Journal of Educational Psychology*, *109*(3), 387–404. https://doi.org/10.1037/edu0000146

Instituto Tecnico Superior Comunitario. (2012.). *Conoce un poco acerca de nosotros [Briefly know about us]*. Retrieved from https://www.itsc.edu.do/index.php/nosotros/

Isacco, A., & Morse, J. Q. (2015). Male graduate students at a "women's college": Examining the roles of academic motivation, support, connection, and masculinity ideology. *Sex Roles*, 72(7-8), 321-334. https://doi.org/10.1007/s11199-015-0447-3

Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC model of academic motivation. *International Journal of Teaching and Learning in Higher Education*, *21*(2), 272-285.

Jones, B. D. (2015). *Motivating students by design: Practical strategies for professors*. Charleston, SC: CreateSpace.

Jones, B. D. (2017). *User guide for assessing the components of the MUSIC® model of motivation*. Retrieved from http://www.theMUSICmodel.com.

Jones, B. D., & Carter, D. (2019). Relationships between students' course perceptions, engagement, and learning. *Social Psychology of Education*, *22*(4), 819–839. https://doi.org/10.1007/s11218-019-09500-x

Jones, B. D., & Skaggs, G. (2016). Measuring students' motivation: validity evidence for the MUSIC® model of academic motivation inventory. *International Journal for the Scholarship of Teaching and Learning*, *10*(1). https://doi.org/10.20429/ijsotl.2016.100107

Kezar, A., & Maxey, D. (2014). Faculty matter: So why doesn't everyone think so? *Tough & Action*, 29-44.

Khandelwal, K. A. (2009). Effective teaching behaviors in the college classroom: A critical incident technique from students' perspective. *International Journal of Teaching and Learning in Higher Education, 21*(3), 299–309.

Kimmel, S. B., Gaylor, K. P., College, M., & Hayes, J. B. (2016). Age differences among adult learners: Motivations and barriers to higher education. *Academy of Business Research Journal*, *4*, 18–45.

Kolodner, M. (2015). Why are graduation rates at community colleges so low? Retrieved from http://hechingerreport.org/new-book-addresses-low-community-college-graduation-rates/

Komarraju, M., Musulkin, S., & Bhattacharya, G. (2010). Role of student-faculty interactions in developing college students' academic self-concept, motivation, and achievement. *Journal of College Student Development*, *51*(3), 332–342.

Kotter, J. P. (2014). *Accelerate: Building strategic agility for a faster-moving world*. Harvard Business Press Books

Lammers, W. J., Gillaspy, J. A., & Hancock, F. (2017). Predicting academic success with early, middle, and late semester assessment of student–instructor rapport. *Teaching of Psychology*, *44*(2), 145–149. https://doi.org/10.1177/0098628317692618

Lancaster, J. R., & Lundberg, C. A. (2019). The influence of classroom engagement on community college student learning: A quantitative analysis of effective faculty practices. *Community College Review*, *47*(2), 136–158. https://doi.org/10.1177/0091552119835922

Levin, J. S. (2018). Faculty and the connection to the institution. In S. T. Kater (Ed.), *Understanding community colleges* (pp. 178-196).

Levin, J., Kater, S., & Wagoner, R. (2011). *Community college faculty: At work in the new economy.* New York, NY: Palgrave Macmillan.

Lomax, R. G., & Hahs-Vaughn, D. L. (2012). An introduction to statistical concepts. Routledge.

Lundberg, C. A. (2014). Peers and faculty as predictors of learning for community college students. *Community College Review*, *42*(2), 79–98. http://doi.org/10.1177/0091552113517931

Lundberg, C. A., Kim, Y. K., Andrade, L. M., & Bahner, D. T. (2018). High expectations, strong support: Faculty behaviors predicting Latina/o community college student learning. *Journal of College Student Development*, *59*(1), 55–70. https://doi.org/10.1353/csd.2018.0004

Martin, K., Galentino, R., & Townsend, L. (2014). Community college student success: The role of motivation and self-empowerment. *Community College Review, 42(3)*, 221–241. http://doi.org/10.1177/0091552114528972

McKay, V. C., & Estrella, J. (2008). First-generation student success: The role of faculty interaction in service learning courses. *Communication Education*, *57*(3), 356–372. http://doi.org/10.1080/03634520801966123

Mellow, G. O., & Heelan, C. M. (2014). An overview of the American community college. In *Minding the dream: The process and practice of the American community college* (pp. 12–23). Lanham, MD: Rowman & Littlefield Publishers

Meyer, K. A. (2014). How community college faculty members may improve student earning productivity in their online courses. *Community College Journal of Research and Practice*, *38*(6), 575–587. http://doi.org/10.1080/10668926.2012.676501

Ministerio de Educación Superior, Ciencia y Tecnología. (2015). *Informe general sobre estadísticas de educación superior 2013-2014 y resumen historico 2005-2014* [General report on statistics on higher education 2013-2014 and historical summary 2005-2014]. Santo Domingo, DR: MESCYT

Nakajima, M. A., Dembo, M. H., & Mossler, R. (2012). Student persistence in community colleges. *Community College Journal of Research and Practice*, *36*(8), 591–613. http://doi.org/10.1080/10668920903054931

National Center for Education Statistics. (2014). Nontraditional undergraduates / Definitions and data. Retrieved March 15, 2017, from https://nces.ed.gov/pubs/web/97578e.asp

National Center for Education Statistics. (2015). *Fast fact. Technical report*. Retrieved from https://nces.ed.gov/fastfacts/display.asp?id=40

Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances in Health Sciences Education*, *15*(5), 625–632. https://doi.org/10.1007/s10459-010-9222-y

Oleson, A., & Hora, M. T. (2014). Teaching the way they were taught? Revisiting the sources of teaching knowledge and the role of prior experience in shaping faculty teaching practices. *Higher Education, 68*(1), 29–45. http://doi.org/10.1007/s10734-013-9678-9

Organization for Economic Co-operation and Development. (2008). *Informe sobre las políticas nacionales de educación: República Dominicana* [Report on national education policies: Dominican Republic]. Dominican Republic: OECD

Organization for Economic Co-operation and Development. (2012). *Reviews of national policies for education: Higher education in the Dominican Republic 2012*, OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264177055-en

Osipow, S. H., Carney, C. G., Winer, J. L., Yanico, B. J., & Koschier, M. (1987). Career Decision scale (3rd rev.). Odessa, FL: Psychological Assessment Resources.

Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence and voluntary dropout decisions from a theoretical model. *The Journal of Higher Education*, 51(1), 60-75. https://doi.org/10.1080/00221546.1980.11780030

Pascarella, E. T., Seifert, T. A., & Whitt, E. J. (2008). Effective instruction and college student persistence: Some new evidence. *New Directions for Teaching and Learning*, (115), 55–70. https://doi.org/10.1002/tl.325

Polinsky, T. L. (2003). Understanding student retention through a look at student goals, intentions, and behavior. *Journal of College Student Retention, 4*(4), 361-376. Retrieved from http://search.proquest.com/docview/196723402?accountid=15099

Presidencia de la Republica Dominicana. (2012). *Propuesta para la creación del Instituto Tecnico Superior Comunitario(ITSC) al 30.07.2012* [Proposal for creating the ITSC 07/30/2012].

Rabideau, S. T. (2005, November). Effects of achievement motivation on behavior. Retrieved from http://www.personalityresearch.org/papers/rabideau.html

Ratka, A., Zorek, J. A., & Meyer, S. M. (2017). Overview of faculty development programs for

interprofessional education. *American Journal of Pharmaceutical Education* (Vol. 81). Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5508095/pdf/ajpe81596.pdf

Ripoll-Nuñez, K. J., Mojica-Ospina, I. E., Torres-Riveros, A. C., & Castellanos-Tous, M. S. (2018). Teachers' and students' perceptions of excellence in teaching in Colombia. *New Directions for Teaching and Learning*, *2018*(156), 57–65. https://doi.org/10.1002/tl.20317

Roksa, J., Trolian, T. L., Blaich, C., & Wise, K. (2017). Facilitating academic performance in college: Understanding the role of clear and organized instruction. *Higher Education*, *74*(2), 283–300. https://doi.org/10.1007/s10734-016-0048-2

Rotgans, J. I., & Schmidt, H. G. (2014). Situational interest and learning: Thirst for knowledge. *Learning and Instruction*, 32, 37–50. https://doi.org/10.1016/j.learninstruc.2014.01.002

Rotgans, J. I., & Schmidt, H. G. (2018). How individual interest influences situational interest and how both are related to knowledge acquisition: A microanalytical investigation. *The Journal of Educational Research*, *111*(5), 530–540. https://doi.org/10.1080/00220671.2017.1310710

Ryan, M. G. (2013). Improving retention and academic achievement for first-time students at a two-year college. *Community College Journal of Research and Practice*, (2), 131–134. http://doi.org/10.1080/10668926.2012.715266

Shell, D. F., & Husman, J. (2008). Control, motivation, affect, and strategic self-regulation in the college classroom: A multidimensional phenomenon. *Journal of Educational Psychology*, *100*(2), 443–459. https://doi.org/10.1037/0022-0663.100.2.443

Sherry, A., & Henson, R. K. (2005). Conducting and interpreting canonical correlation analysis in personality research: A user-friendly primer. *Journal of Personality Assessment*, 84(1), 37–48. https://doi.org/10.1207/s15327752jpa8401_09

Solberg, V. S., O'Brien, K., Villareal, P., Kennel, R., & Davis, B. (1993). Self-efficacy and Hispanic college students: Validation of the college self-efficacy instrument. *Hispanic Journal of Behavioral Sciences*, *15*(1), 80-95. https://doi.org/10.1177/07399863930151004

Sprouse, M., Ebbers, L. H., & King, A. R. (2008). Hiring and developing quality community college faculty. *Community College Journal of Research and Practice*, *32*(12), 985–998. http://doi.org/10.1080/10668920701831159

Topper, A. M., & Powers, J. M. (2013). Democracy's college: The American community college in the 21st century: Framing the issue. *Education Policy Analysis Archives*, *21*(14). Retrieved from http://epaa.asu.edu/ojs/article/view/1319

Tovar, E. (2015). The role of faculty, counselors, and support programs on Latino/a community college students' Success and Intent to Persist. *Community College Review*, *43*(1), 46–71. http://doi.org/10.1177/0091552114553788

Trolian, T. L., Jach, E. A., Hanson, J. M., & Pascarella, E. T. (2016). Influencing academic motivation: The effects of student–faculty interaction. *Journal of College Student Development*, *57*(7), 810–826. https://doi.org/10.1353/csd.2016.0080

Umbach, P. D., & Wawrzynski, M. R. (2005). Faculty do matter: The role of college faculty in student learning and engagement. *Research in Higher Education*. http://doi.org/10.1007/s11162-004-1598-1

Vaughan, G. B. (2006). *The community college story*. Washington, DC: Community College Press.

Vecchione, M., Alessandri, G., & Marsicano, G. (2014). Academic motivation predicts educational attainment: Does gender make a difference? https://doi.org/10.1016/j.lindif.2014.01.003

Walker, C., & Gleaves, A. (2015). Constructing the caring higher education teacher: A theoretical framework. https://doi.org/10.1016/j.tate.2015.11.013

Wallen, N. E., & Fraenkel, J. R. (2000). *Educational research: A guide to the process*. Mahwah, NJ: Taylor & Francis

White, D. A. (2018). Faculty behaviors influencing intent to pursue graduate education among RN-BSN students. *Teaching and Learning in Nursing*, *13*(2), 108–112. https://doi.org/10.1016/j.teln.2017.12.001

Wilson, J. H., & Ryan, R. G. (2013). Professor-Student rapport scale: Six items predict student outcomes. *Teaching of Psychology*, 40(2), 130-133. https://doi.org/10.1177/0098628312475033

Wirt, L. G., & Jaeger, A. J. (2014). Seeking to understand faculty-student interaction at community colleges. *Community College Journal of Research and Practice*, *38*(11), 1–15. http://doi.org/10.1080/10668926.2012.725388

Wood, J. L., & Newman, C. B. (2015). Predictors of faculty– student engagement for Black men in urban community colleges: An investigation of the community college survey of men. *Urban Education*, *0*(0)1–23. http://doi.org/10.1177/0042085915623343

Woods, R. H., Badzinski, D. M., Fritz, J. M. H., & Yeates, S. E. (2012). The "ideal professor" and gender effects in Christian higher education. *Christian Higher Education*, *11*(3), 158–176. https://doi.org/10.1080/15363759.2011.598378

Yeatts, P. E., Barton, M., Henson, R. K., & Martin, S. B. (2017). The use of structure coefficients to address multicollinearity in sport and exercise science. *Measurement in Physical Education and Exercise Science*, *21*(2), 83–91. https://doi.org/10.1080/1091367X.2016.1259162

Zerquera, D. D., Ziskin, M., & Torres, V. (2016). Faculty views of "nontraditional" students. *Journal of College Student Retention: Research, Theory & Practice*, *0*(0), 1–18. http://doi.org/10.1177/1521025116645109

Appendix A

Site Approval Letter

Appendix A
Site Approval Letter

ITSC

DIRECCIÓN DE COMUNICACIÓN
¨Año de la innovación y la competitividad¨

Santo Domingo Este, Rep. Dom.
Miércoles 27 de noviembre 2019

SITE APPROVAL LETTER

To whom it may concern:

Subject. Site Approval Letter

This letter acknowledges that I have received and reviewed a request by Víctor A. Henry Ubiera to conduct a research project entitled **"Community College Student Success: Connections to Student Perceptions of Faculty Behaviors, and Classroom Motivators"** at Instituto Tecnico Superior Comunitario (ITSC) and I approve of this research to be conducted at our facility.

When the researcher receives approval for her research project from the Western Michigan University's Institutional Review Board/HISRB, I agree to provide access for the approved research project. If we have any concerns or need additional information, we will contact the Western Michigan University's HSIRB at (269)387-8293 or Julia.mays@wmu.edu.

Sincerely,

Ing. María Corporán, MA.
Vicerrectora Académica (ITSC)

INSTITUTO TÉCNICO SUPERIOR COMUNITARIO VRA

MC/ms

Appendix B

Human Subjects Institutional Review Board Approval

WESTERN MICHIGAN UNIVERSITY

Institutional Review Board
FWA00007042
IRB00000254

Date: December 17, 2019

To: Louann Bierlein Palmer, Principal Investigator
Victor Henriquez Ubiera, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: IRB Project Number 19-12-11

This letter will serve as confirmation that your research project titled "Community College Student Success: Connections to Student Perceptions of Faculty Behaviors, and Classroom Motivators" has been **approved** under the **exempt** category of review by the Western Michigan University Institutional Review Board (IRB). The conditions and duration of this approval are specified in the policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may **only** be conducted exactly in the form it was approved. You must seek specific board approval for any changes to this project (e.g., ***add an investigator, increase number of subjects beyond the number stated in your application, etc.***). Failure to obtain approval for changes will result in a protocol deviation.

In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the IRB for consultation.

The Board wishes you success in the pursuit of your research goals.

A status report is required on or prior to (no more than 30 days) December 16, 2020 and each year thereafter until closing of the study. The IRB will send a request.

When this study closes, submit the required Final Report found at https://wmich.edu/research/forms.

Note: All research data must be kept in a secure location on the WMU campus for at least three (3) years after the study closes.

Office of the Vice President for Research
Western Michigan University
1903 W. Michigan Ave., Kalamazoo, MI 49008-5456
PHONE: (269) 387-8293 FAX: (269) 387-8276
WEBSITE: wmich.edu/research/compliance/hsirb

CAMPUS SITE: Room 251 W. Walwood Hall

Appendix C

Survey Instrument (English + Spanish)

Appendix C
Survey Instrument (English)

Welcome to the research study!

Please read this consent information before you begin the survey.

You are invited to participate in a research project **"COMMUNITY COLLEGE STUDENT SUCCESS: CONNECTION OF STUDENT PERCEPTION OF FACULTY BEHAVIORS AND CLASSROOM MOTIVATORS"**.

This consent form is part of an informed consent process for a research study and it will provide information that will help you decide whether you want to take part in this study. Participation in this study is completely voluntary. You may choose to not answer any question. The purpose of this study is to explore how students from the first and only Dominican community college perceive certain faculty behaviors and how those are related to students' classroom motivators and success. Your time in the study will take less than 10 minutes of your time to complete a survey. There are no know risks associated with participating in this study beyond normally experienced in everyday life. Your alternative to taking part in the research study is not to take part in it.

The information you provide will be treated as highly confidential; no one will see your answers to questions other than the principal and student investigator. We are also seeking your permission to obtain your student academic and college records to gather your GPA. (In compliance with the Family Education Rights and Privacy Act (FERPA) OF 1974 [U.S.A. legislation]). Your name or student ID will ever be connected to any of the results reported.

The de-identified (anonymous) information collected for this research may be used by or distributed to investigators for other research without obtaining informed consent from you.

At the end, you will have an opportunity to win one of five RD$ 1,000 (US$ 20) gift card to Group CCN (Jumbo, Nacional Supermarket, or Cuesta National Center).

Should you have any questions prior to or during the study, you can contact Louann A. Bierlein Palmer at 269-387-3596 or l.bierleinpalmer@wmich.edu or Víctor Henry 829-763-2840 or [victorarmando.henriquezubiera@wmich.edu]. You may also contact the Chair, Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298.

○ I agree to participate in this study

This consent has been approved by the Western Michigan University Human Subjects Institutional Review Board (HSIRB) on "(study approval date).

Participating in this survey online indicates your consent for use of the answers you supply. If you do not consent, simply exit now.

Q1 Which of the following better describe your status as student here at ITSC?

○ I’m currently taking classes (0)

○ I completed all my required classes (1)

Q2 Please enter your Student ID (This will be kept confidential)

_____

Q3 **Please Select your program of study.**

Area of Study (1)

▼ ARTES (1) ... TURISMO ~ PANADERIA Y REPOSTERIA (33)

Display This Question:

If Which of the following statement better describe your status as student here at ITSC? I'm currently taking classes Is Selected

Q4 **Tell us how strongly the following statement aligns with your motivation to complete your degree at this college.**

	Strongly Disagree (1)	Moderately Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Moderately Agree (5)	Strongly Agree (6)
I am strongly committed to obtaining my associate degree. (1)	○	○	○	○	○	○

Q5 **Section II: Faculty and Course Information** Below are 28 faculty qualities and corresponding observable behaviors. Please indicate overall how often the faculty you have had for classes here at ITSC showed these qualities.

	Never (0)	*Very Rarely (1)*	*Occasionally (2)*	*Frequently (3)*	*Very Frequently (4)*	*Always (5)*
Accessible (Posts office hours, gives out a phone number, and e-mail information) (1)	○	○	○	○	○	○
Approachable/Personable (Smiles, greets students, initiates conversations, invites questions, responds respectfully to student comments) (2)	○	○	○	○	○	○
Authoritative (Establishes clear course rules; maintains classroom order; speaks in a loud, strong voice) (3)	○	○	○	○	○	○
Confident (Speaks clearly, makes eye contact, and answers questions correctly) (4)	○	○	○	○	○	○
Creative and Interesting (Experiments with teaching methods; uses technological devices to support and enhance lectures; uses interesting, relevant, and personal examples; not monotone). (5)	○	○	○	○	○	○
Effective Communicator (Speaks clearly/loudly; uses precise English; gives clear, compelling examples) (6)	○	○	○	○	○	○
Encourages and Cares for Students (Provides praise for good student work, helps students who need it, offers bonus points and extra credit, and knows student names) (7)	○	○	○	○	○	○
Enthusiastic about Teaching and about Topic (Smiles during class, prepares interesting class activities, uses gestures and expressions of emotion to emphasize important points, and arrives on time for class) (8)	○	○	○	○	○	○
Establishes Daily and Academic Term Goals (Prepares/follows the syllabus and has goals for each class) (9)	○	○	○	○	○	○

Flexible/Open-Minded *(Changes calendar of course events when necessary, will meet at hours outside of office hours, pays attention to students when they state their opinions, accepts criticism from others, and allows students to do make-up work when appropriate) (10)*	○	○	○	○	○	○
Good Listener (Doesn't interrupt students while they are talking, maintains eye contact, and asks questions about points that students are making) (11)	○	○	○	○	○	○
Happy/Positive Attitude/Humorous (Tells jokes and funny stories, laughs with students) (12)	○	○	○	○	○	○
Humble (Admits mistakes, never brags, and doesn't take credit for others' successes) (13)	○	○	○	○	○	○
Knowledgeable About Subject Matter (Easily answers students' questions, does not read straight from the book or notes, and uses clear and understandable examples) (14)	○	○	○	○	○	○
Prepared (Brings necessary materials to class, is never late for class, provides outlines of class discussion) (15)	○	○	○	○	○	○
Presents Current Information (Relates topic to current, real-life situations; uses recent videos, magazines, and newspapers to demonstrate points; talks about current topics; uses new or recent texts) (16)	○	○	○	○	○	○
Professional (Dresses nicely [neat and clean shoes, slacks, blouses, dresses, shirts, ties] and no profanity) (17)	○	○	○	○	○	○
Promotes Class Discussion (Asks controversial or challenging questions during class, gives points for class participation, involves students in group activities during class) (18)	○	○	○	○	○	○
Promotes Critical Thinking/Intellectually Stimulating (Asks thoughtful questions during class, uses essay questions on tests and quizzes, assigns homework, and holds group discussions/activities) (19)	○	○	○	○	○	○

Provides Constructive Feedback (Writes comments on returned work, answers students' questions, and gives advice on test-taking) (20)	○	○	○	○	○	○
Punctuality/Manages Class Time (Arrives to class on time/early, dismisses class on time, presents relevant materials in class, leaves time for questions, keeps appointments, returns work in a timely way) (21)	○	○	○	○	○	○
Rapport (Makes class laugh through jokes and funny stories, initiates and maintains class discussions, knows student names, interacts with students before and after class). (22)	○	○	○	○	○	○
Realistic Expectations of Students/Fair Testing and Grading (Covers material to be tested during class, writes relevant test questions, does not overload students with reading, teaches at an appropriate level for the majority of students in the course, curves grades when appropriate) (23)	○	○	○	○	○	○
Respectful (Does not humiliate or embarrass students in class, is polite to students [says thank you and please, etc.], does not interrupt students while they are talking, does not talk down to students). (24)	○	○	○	○	○	○
Sensitive and Persistent (Makes sure students understand material before moving to new material, holds extra study sessions, repeats information when necessary, asks questions to check student understandings) (25)	○	○	○	○	○	○
Strives to Be a Better Teacher (Requests feedback on his/her teaching ability from students, continues learning [attends workshops, etc. on teaching], and uses new teaching methods) (26)	○	○	○	○	○	○
Technologically Competent (Knows how to use a computer, knows how to use e-mail with students, knows how to use overheads during class, has a Web page for classes) (27)	○	○	○	○	○	○

Understanding (Accepts legitimate excuses for missing class or coursework, is available before/after class to answer questions, does not lose temper at students, takes extra time to discuss difficult concepts) (28)	○	○	○	○	○	○

Q6 **Thinking about the [[STUDENT ACADEMIC AREA]] courses you have taken and are currently taking, please rate your overall level of agreement or disagreement with the following statements:**

	Strongly disagree (1)	Moderately disagree (2)	Somewhat disagree (3)	Somewhat agree (4)	Moderately Agree (5)	Strongly agree (6)
The coursework held my attention. (1)	○	○	○	○	○	○
In general, the coursework was useful to me. (2)	○	○	○	○	○	○
The instructors were available to answer my questions about the coursework. (3)	○	○	○	○	○	○
The coursework were beneficial to me. (4)	○	○	○	○	○	○
The instructional methods used in the courses held my attention. (5)	○	○	○	○	○	○
I was confident that I could succeed in the coursework (6)	○	○	○	○	○	○
I enjoyed the instructional methods used in the courses. (7)	○	○	○	○	○	○

I felt that I could be successful in meeting the academic challenges in the courses. (8)	○	○	○	○	○	○
The instructional methods engaged me in the courses. (9)	○	○	○	○	○	○
I enjoyed completing the coursework. (10)	○	○	○	○	○	○
I was capable of getting a high grade in the courses. (11)	○	○	○	○	○	○
The coursework was interesting to me. (12)	○	○	○	○	○	○
The instructor was willing to assist me if I needed help in the course. (13)	○	○	○	○	○	○
Throughout the courses, I have felt that I could be successful on the coursework. (14)	○	○	○	○	○	○
I found the coursework to be relevant to my future. (15)	○	○	○	○	○	○

The instructor cared about how well I did in this course. (16)	○	○	○	○	○	○
I will be able to use the knowledge I gained in the courses. (17)	○	○	○	○	○	○
The instructor was respectful of me. (18)	○	○	○	○	○	○
The knowledge I gain in the courses is important for my future. (19)	○	○	○	○	○	○
The instructors were friendly. (20)	○	○	○	○	○	○
I believe that the instructors cared about my feelings. (21)	○	○	○	○	○	○

Page Break

Q7 **My biological gender is**

- ○ Female (0)
- ○ Male (1)

Q8 Have your parents (or guardians) completed a postsecondary education degree?

- ○ Both of my Parents (1)
- ○ One of my parents (2)
- ○ None of my parents (3)

Q9 Where did you complete High School?

- ○ In a Public General High School (1)
- ○ In a Private General High School (2)
- ○ In a Technical High School (3)

Q10 In which convocation did you pass all the national high school tests after finishing high school?

- ○ First call (1)
- ○ Second call (2)
- ○ Third call (3)
- ○ I took more than one school year to pass the exams. (4)

Q11 What is your current age?

_____

Q12 How many hours per week do you work in any way of pay employment?

	0 5 10 15 20 25 30 35 40 45 50
Hours	

Q13 Thanks for your participation!

Please enter your phone number to be entered for the drawing to win one of 1,000 (US$ 20) gift card to Group CCN (Jumbo, Nacional Supermarket, or Cuesta National Center).

_____

End of Block: Survey Welcome

Survey Instrument (Spanish)

Western Michigan University

Educational, Leadership, Research, and Techonology

Por favor lea esta información de consentimiento antes de comenzar la encuesta. Has sido invitado a participar en el proyecto de investigación **"ÉXITO DE LOS ESTUDIANTES EN LOS COLEGIOS COMUNITARIOS: PERCEPCIÓN DE LOS ESTUDIANTES DEL COMPORTAMIENTO DEL DOCENTE Y LA MOTIVACIÓN EN EL AULA"**.

Este formulario de consentimiento es parte de un proceso de consentimiento informado para un estudio de investigación y proporcionará información que lo ayudará a decidir si desea participar en este estudio. La participación en este estudio es completamente voluntaria. Puede elegir no responder ninguna pregunta. El propósito de este estudio es explorar cómo los estudiantes de la primera y única universidad comunitaria dominicana perciben ciertos comportamientos de la facultad y cómo se relacionan con los motivadores y el éxito de los estudiantes en el aula. Su tiempo en el estudio tomará menos de 10 minutos para completar una encuesta. No se conocen riesgos asociados con la participación en este estudio más allá de lo que normalmente se experimenta en la vida cotidiana. Su alternativa a participar en el estudio de investigación es no participar en él.

La información que proporcione será tratada como altamente confidencial; nadie verá sus respuestas a las preguntas que no sean el director y el investigador estudiantil. También estamos solicitando su permiso para obtener los registros académicos y universitarios de sus estudiantes para obtener su GPA. (De conformidad con la Ley de Derechos y Privacidad de la Educación Familiar (FERPA) DE 1974 [legislación de EE. UU.]). Su nombre o ID de estudiante alguna vez estarán conectados a cualquiera de los resultados reportados.

La información no identificada (anónima) recopilada para esta investigación puede ser utilizada o distribuida a investigadores para otra investigación sin obtener su consentimiento informado.

Al final, tendrá la oportunidad de ganar una de las cinco tarjetas de regalo de RD $ 1,000 (US $ 20) para el Grupo CCN (Jumbo, Supermercado Nacional o Centro Nacional Cuesta).

Si tiene alguna pregunta antes o durante el estudio, puede comunicarse con Louann A. Bierlein Palmer al 269-387-3596 o l.bierleinpalmer@wmich.edu o Víctor Henry 829-763-2840 o [victorarmando.henriquezubiera@wmich. edu]. También puede comunicarse con el Presidente, la Junta de Revisión Institucional al 269-387-8293 o el Vicepresidente de Investigación al 269-387-8298.

Este consentimiento ha sido aprobado por la Junta de Revisión Institucional de Sujetos Humanos de la Universidad de Western Michigan (HSIRB) el "(fecha de aprobación del estudio).

Participar en esta encuesta en línea indica su consentimiento para el uso de las respuestas que proporciona. Si no da su consentimiento, simplemente salga ahora.

○ Acepto participar en este estudio

Q1 Cual de las siguientes opciones describe mejor tu estatus como estudiante aquí en el ITSC?

- ○ Estoy cursando clases actualmente (0)
- ○ Concluí con todas las materias del pensum (1)

Q2 Por favor introduzca su matrícula de estudiante (Esto es confindencial)

_____

Q3 Selecciona tu programa de estudio
Area de Estudio (1)
Técnico Superior en (2)

▼ ARTES (1) ... TURISMO ~ PANADERIA Y REPOSTERIA (33)

Display This Question:
If Which of the following statement better describe your status as student here at ITSC? I'm currently taking classes Is Selected

Q4 Cuéntanos, que tan de acuerdo estás con la siguiente afirmación:

	Totalmente en desacuerdo (1)	Moderadamente en desacuerdo (2)	Algo en desacuerdo (3)	Algo de acuerdo (4)	Moderadamente de acuerdo (5)	Totalmente de Acuerdo (6)
Estoy fielmente comprometido a obtener mi título de técnico superior en el ITSC. (1)	○	○	○	○	○	○

Q5 **Sección II: Información de los docentes y las asignaturas**A continuación se presentan 28 cualidades de los docentes junto con los comportamientos observables correspondientes. Indique, en general, con qué frecuencia los profesores que has tenido para las clases aquí en ITSC mostraron estas cualidades.

	Nunca (1)	Muy rara vez (2)	Ocasionalmente (3)	Frecuentemente (4)	Muy Frecuentemente (5)	Siempre (6)
Accesible (Da horarios disponibles, teléfono, y correo electrónico). (1)	○	○	○	○	○	○
Alcanzable/Amigable (Sonríe, saluda los estudiantes, inicia conversaciones, pregunta, responde respetuosamente a los comentarios de los estudiantes) (2)	○	○	○	○	○	○
Autoritario (Pone reglas claras en la materia; mantiene el control del aula, habla con voz fuerte) (3)	○	○	○	○	○	○
Seguro (Habla claro, hace contacto visual, y contesta preguntas correctamente) (4)	○	○	○	○	○	○
Creativo e Interesante (Experimenta con métodos de enseñanza; usa dispositivos tecnológicos para apoyar y mejorar sus explicaciones; usa ejemplos, personales, interesantes y relevantes; no es monótono). (5)	○	○	○	○	○	○
Comunicador eficaz (Habla claro/alto; usa el español correctamente; da ejemplos claros y convincentes) (6)	○	○	○	○	○	○
Alienta y se preocupa por los estudiantes (Elogia el buen trabajo de los estudiantes, los ayuda en lo necesitan, da puntos extra y conoce sus nombres) (7)	○	○	○	○	○	○
Entusiasmado en enseñar y del tema (Sonríe durante las clases, prepara interesantes actividades de clases, usa gestos y expresiones emocionantes para enfatizar puntos importantes, y llega a tiempo a la clase) (8)	○	○	○	○	○	○
Establece Metas Académicas del diarias y para el semestre. (Prepara/sigue el programa de la materia y tienes metas para cada clase) (9)	○	○	○	○	○	○

Flexible/Mente Abierta (Cambia las fechas de actividades de clases si es necesario, se reúne con estudiante fuera de su horario, presta atención con los estudiantes emiten opiniones, aceptan las críticas de otros, y permite que los estudiantes rehagan los trabajos cuando es apropiado) (10)	○	○	○	○	○	○
Sabe escuchar (No interrumpe los estudiantes mientras hablan, mantiene contacto visual, y realiza preguntas sobre los puntos que expresan los estudiantes) (11)	○	○	○	○	○	○
Feliz/Actitud Positiva/Sentido del Humor (Hace historias y bromas divertidas, rie con los estudiantes) (12)	○	○	○	○	○	○
Humilde (Admite errores, no es altanero, y no se atribuye el éxito de los demás) (13)	○	○	○	○	○	○
Conocedor de la Materia (responde las preguntas con facilidad, no lee directamente de su libro o notas y usa ejemplos claros y entendibles) (14)	○	○	○	○	○	○
Preparado (Trae los materiales necesarios para la clase, nunca llega tarde a clases, proporciona esquemas de lo que se discutirá) (15)	○	○	○	○	○	○
Presenta información Actualizada (Relaciona el temas con situaciones actuales y de la vida real, usa videos, revistas, y periódicos recientes para demostrar algunos puntos; habla de temas actuales; usa libros o textos recientes) (16)	○	○	○	○	○	○
Profesional (Viste bien [zapatos, pantalones, vestidos, camisas, corbatas limpias y adecuadas] y no usa lenguaje obsceno. (17)	○	○	○	○	○	○
Promueve la Discusión en Clases (Hace preguntas controversiales o desafiantes en clases, da puntos por participación, involucra a los estudiantes en actividades grupales en clases) (18)	○	○	○	○	○	○
Promueve el pensamiento crítico / estimulante intelectual (hace preguntas reflexivas durante la clase, usa preguntas abiertas en exámenes y cuestionarios, asigna tareas y realiza discusiones / actividades grupales) (19)	○	○	○	○	○	○

Proporciona retroalimentación constructiva (escribe comentarios sobre los trabajos devueltos, responde las preguntas de los estudiantes y brinda consejos sobre la toma de exámenes) (20)	○	○	○	○	○	○
Puntualidad / Administra el tiempo de clase (Llega a clase a tiempo /temprano, termina la clase a tiempo, presenta materiales relevantes en clase, deja tiempo para preguntas, cumple las citas, corrige las tareas de manera oportuna) (21)	○	○	○	○	○	○
Se Compenetra (Hace reír a la clase con bromas e historias divertidas, inicia y mantiene la discusión en clases, sabe los nombres de sus estudiantes, interactúa con ellos antes y después de clases). (22)	○	○	○	○	○	○
Expectativas realistas de los estudiantes / Pruebas y calificaciones justas (Cubre el material que se examinará durante la clase, escribe preguntas de examen relevantes, no sobrecarga a los estudiantes con lecturas, enseña a un nivel apropiado para la mayoría de los estudiantes en el curso, redondea las calificaciones cuando es adecuado) (23)	○	○	○	○	○	○
Respetuoso (No humilla o avergüenza estudiantes en clase, es educado con los estudiantes [dice gracias y por favor, etc.], no interrumpe los estudiantes cuando hablan, **does not talk down to students**). (24)	○	○	○	○	○	○
Sensible y Persistente (Se asegura los estudiantes entiendan antes de pasar al siguiente tema, realiza sesiones de clases extra, repite la información cuando es necesario, hace preguntas para comprobar que los estudiantes entedieron) (25)	○	○	○	○	○	○
Se esfuerza por ser mejor Maestro(Solicita comentarios de los estudiantes sobre su capacidad de enseñanza, continúa aprendiendo [asiste a talleres, etc. sobre enseñanza], y usa nuevos métodos de enseñanza) (26)	○	○	○	○	○	○
Technologicamente Competente (Sabe usar la computadora y el correo electrónico, sabe usar proyecciones y presentaciones, tiene pagina web para la materia) (27)	○	○	○	○	○	○

Comprensible (Acepta excusas legítimas para faltar a clases o entregar tareas, está disponible antes / después de la clase para responder preguntas, no pierde la paciencia con los estudiantes, toma tiempo adicional para discutir conceptos difíciles) (28)	○	○	○	○	○	○

Q6 **Pensando en los cursos de [[AREA DE ESTUDIO]] que has tomado y estás tomando actualmente, califique en sentido general que tan de acuerdo o desacuerdo estas con las siguientes declaraciones:**

Tenga en cuenta que la palabra actividades se refiere a todas las actividades que ha hecho en el curso incluyendo tareas, talleres, trabajos, proyectos, lecturas, etc.

	Muy en Desacuerdo (1)	Moderadamente en desacuerdo (2)	Algo en desacuerdo (3)	Algo de acuerdo (4)	Moderadamente de acuerdo (5)	Muy de Acuerdo (6)
Las actividades del la clase me llaman la atención. (1)	○	○	○	○	○	○
En general, las actividades de la clase son útiles. (2)	○	○	○	○	○	○
El(la) profesor(a) ha estado disponible para atender mis dudas relacionadas con las actividades de la clase. (3)	○	○	○	○	○	○
Las actividades de la clase son beneficiosas para mí (4)	○	○	○	○	○	○
Me llaman la atención los métodos de enseñanza usados en las clases. (5)	○	○	○	○	○	○
Confío en mi capacidad de realizar exitosamente las actividades de las clases. (6)	○	○	○	○	○	○
Disfruto los métodos de enseñanza utilizados las clases. (7)	○	○	○	○	○	○
Me siento en la capacidad de alcanzar los retos académicos de las materias (8)	○	○	○	○	○	○
Los métodos de enseñanza me involucran (enganchan) activamente en las clases. (9)	○	○	○	○	○	○

Disfruto las actividades las clases. (10)	○	○	○	○	○	○
Me considero capaz de obtener una altas calificación en las clases. (11)	○	○	○	○	○	○
Las actividades las clases me parecen interesantes. (12)	○	○	○	○	○	○
El(la) profesor(a) está dispuesto a ayudarme cuando lo(la) necesite. (13)	○	○	○	○	○	○
A lo largo de las asignaturas he sentido que puedo realizar con éxito las actividades. (14)	○	○	○	○	○	○
Considero que las actividades son relevantes para mi futuro. (15)	○	○	○	○	○	○
El(la) profesor(a) se preocupa por mi desempeño en el curso. (16)	○	○	○	○	○	○
Seré capaz de usar los conocimientos adquiridos en las clases. (17)	○	○	○	○	○	○
El(la) profesor(a) es respetuoso conmigo. (18)	○	○	○	○	○	○
Los conocimientos adquiridos en este curso son importantes para mi futuro (19)	○	○	○	○	○	○
El(la) profesor(a) es amigable. (20)	○	○	○	○	○	○
Creo que el(la) profesor(a) se preocupa por cómo me siento (21)	○	○	○	○	○	○

Q7 Mi género biologico es:

- ○ Femenino (1)
- ○ Masculino (2)
- ○ Otro (3)

Q8 ¿Han completado tus padres (o tutores) un título de Educación Superior?

- ○ Mis dos padres (1)
- ○ Uno de mis padres (2)
- ○ Ninguno de mis padres (3)

Q9 ¿Dónde completaste el Bachillerato?

- ○ En un Liceo o Escuela Pública (1)
- ○ En un Colegio Privado (2)
- ○ En un Politénico (público) (3)

Q10 ¿En cuál convocatoria terminaste de aprobar todas las Pruebas Nacionales del Bachillerato?

Primera Convocatoria (1)
Segunda Convocatoria (2)
Tercera Convocatoria (3)
Tomé más de un año escolar para aprobar los exámenes. (4)

Q11 ¿Qué edad tienes actualmente?

_____

Q12 ¿Cuántas horas a la semana trabajas en alguna forma de empleo remunerado ?:

0 5 10 15 20 25 30 35 40 45 50

Horas ()	

Q13 ¡Gracias por tu participación!
Ingrese tu número de teléfono para participar en el sorteo para ganar uno de los bonos de RD$1,000 para usarlo en el Grupo CCN (Jumbo, Supermercado Nacional o Centro Nacional Cuesta).

End of Block: Survey Welcome

Appendix D

Email Script for Students Awaiting Graduation

(English + Spanish)

Appendix D
Email for students awaiting for graduation (English)

Dear [*student name*],

My name is Victor Henry and I am a doctoral student from the Educational Leadership Research and Technology at the Western Michigan University. I am writing to invite you to participate in my research study about *Community College Student Success and its connection to Students' perception of faculty behaviors and classroom motivators*. You're eligible to be in this study because you are a student waiting for graduation. I obtained your contact information from [*describe source*].

If you decide to participate in this study, you will complete a survey that will be available here (http://linkforthesurveygoeshere.com). *From [Starting Date] to [End Date]. You also can complete this survey in one of ITSC computer labs (contact us computer labs schedule).* The survey will only take less than 10 minutes of your time. At the end, you will have an opportunity to win one of five RD$ 1,000 (US$ 20) gift card to Group CCN (Jumbo, Nacional Supermarket, or Cuesta National Center).

Remember, this is completely voluntary. If you'd like to participate or have any questions about the study, please email or contact Dr. Louann Bierlein Palmer at 269 387-3596 or Victor Henry at victorhenry@outlook.com or WhatsApp 829-763-2840.

Thank you very much.

Sincerely,

Víctor Henry

Appendix D
Email for students awaiting for graduation (Spanish)

Estimado [nombre del alumno],

Mi nombre es Victor Henry y soy estudiante de doctorado la Universidad Western Michigan. Te escribo para invitarte a participar en mi investigación sobre el éxito estudiantil de Community College y su conexión con la percepción que los estudiantes tienen de los comportamientos de la facultad y los motivadores de la clase. Usted es elegible para participar en este estudio porque es un estudiante que espera su graduación. Obtuve su información de contacto de [describa la fuente].

Si decide participar en este estudio, completará una encuesta que estará disponible aquí (http://linkforthesurveygoeshere.com). Desde [Fecha de inicio] a [Fecha de finalización]. También puede completar esta encuesta en uno de los laboratorios de computación del ITSC (contáctenos programa de laboratorios de computación). La encuesta solo tomará menos de 10 minutos de su tiempo. Al final, tendrá la oportunidad de ganar una de las cinco tarjetas de regalo de RD $ 1,000 (US $ 20) para el Grupo CCN (Jumbo, Supermercado Nacional o Centro Nacional Cuesta).

Recuerde, esto es completamente voluntario. Si desea participar o tiene alguna pregunta sobre el estudio, envíe un correo electrónico o comuníquese con el Dr. Louann Bierlein Palmer al 269 387-3596 o con Victor Henry a victorhenry@outlook.com o WhatsApp 829-763-2840.

Muchas gracias.

Sinceramente,

Víctor Henry

Appendix E

Study Announcement Flyer

(English + Spanish)

Appendix E
Study Announcement Flyer (English)

If you are interested in learning more about the study, please go to <link>

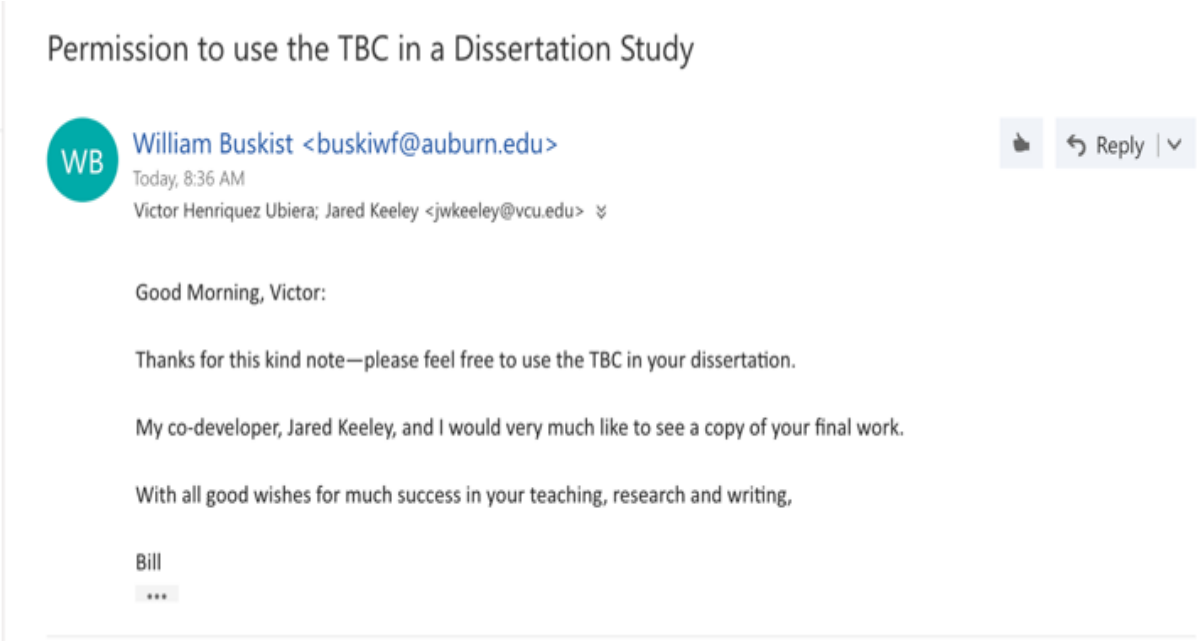
Appendix E
Study Announcement Flyer (Spanish)

Si estás interesado en saber más sobre la investgación, por favor vaya a <link>

Appendix F

Permission to Use the TBC (Buskits et al.'s, 2002)

Appendix F
Permission to use the Teacher Behaviors Checklist



Permission to use the TBC in a Dissertation Study

WB

William Buskist <buskiwf@auburn.edu>

Today, 8:36 AM

Victor Henriquez Ubiera; Jared Keeley <jwkeeley@vcu.edu>

Reply

Good Morning, Victor:

Thanks for this kind note—please feel free to use the TBC in your dissertation.

My co-developer, Jared Keeley, and I would very much like to see a copy of your final work.

With all good wishes for much success in your teaching, research and writing,

Bill

Appendix G

Permission to Use the Inventory of the MUSIC® Model of Motivation (Jones, 2009, 2015).

Appendix G
Permission to use the MUSIC® inventory

Re: Permission to Use the MUSIC(R) inventory

Brett D. Jones <brettdjones@gmail.com>
Thu 2/21/2019 11:00 AM
To: Victor Henriquez Ubiera <victorarmando.henriquezubiera@wmichedu>

2 attachments (11 MB)
2009 Jones - The MUSIC Model.pdf; Motivating Students by Design - 2nd edition 2018 Bett D Jones.pdf;

Hi Victor,

Thanks for the message, I'm glad that you're interested in using the MUSIC Inventory. As a researcher, you can use the inventory as much as you want, the only restrictions are explained in the following paragraph:

You have my permission to use the MUSIC Inventory for non-commercial uses such as research and teaching. However, you cannot profit from the sale or use of the MUSIC® Inventory or the MUSIC® Model of Motivation (MUSIC is a registered trademark by Brett D. Jones). If you present or publish your results, simply reference the MUSIC Inventory as part of the User Guide (available at www.theMUSICmodel.com) as is explained in the User Guide (cite it as Jones, 2017). And then, refer to the MUSIC Model of Motivation as Jones 2009 (my article) and Jones 2018 (my book; I have attached part of the book). I provide the citations below.

It sounds like you want to use the model exactly as it is intended to be used, so that is great! You may also want to use some of the open-ended items in the User Guide (or others you create) to collect some qualitative data related to each of the MUSIC components. I've found them useful in getting feedback that will help you improve instruction.

Please let me know if you have any further questions. Thank you for your interest!
Brett

Jones, B. D. (2009). Motivating students to engage in learning: The MUSIC Model of Academic Motivation. *International Journal of Teaching and Learning in Higher Education, 21*(2), 272-285.

Jones, B. D. (2018). *Motivating students by design: Practical strategies for professors* (2nd ed.). Charleston, SC: CreateSpace.

Appendix H

Instruction Script for Survey at ITSC's Computer Labs (English + Spanish)

Appendix H
Instruction Script (English)
SURVEY INSTRUCTION SCRIPT

Hi, my name is Victor Henry. I am a doctoral student from the Educational Leadership Research and Technology from Western Michigan University and a researcher in the field of Community College Student Success.

As you know here at ITSC, the Dominican government is implementing a new educational model in the country and is of our interest to study about how you and other Dominicans succeed in obtaining this associate degree.

In that sense, we request your collaboration by filling this survey in the most honest and objective way possible, regarding how you percieve the behaviors of the faculty you have had during your courses here at this community college, along with some questions from your academic, work, and demographic background.

This survey is confidential, which means, we will not share data that identifies any participant.

Participation is completely voluntary. The survey will only take less than 10 minutes of your time. At the end, you will have an opportunity to win one of five RD$ 1,000 (US$ 20) gift card to Group CCN (Jumbo, Nacional Supermarket, or Cuesta National Center). If you don't agree to participate you can stay quietly or doing something else until your classmate complete the survey and you will not suffer any consequences. Participating in this online survey indicates your consent for the use of the answers you supply.

If you have any question before or during the survey you can ask me any time or contact these numbers: *(Show on screen)*

- *Dr. Louann Bierlein Palmer at 269 387-3596*
- *Victor Henry at 829-763-2840*
- *Chair, Human Subjects Institutional Review Board at 269-387-8293*
- *Vice President for Research at 269-387-8298*

Thank you very much!

Appendix H

Instruction Script (Spanish)

INSTRUCCIONES DE ENCUESTA

Hola, mi nombre es Victor Henry. Soy un estudiante de doctorado de Investigación,Tecnología y Liderazgo Educativo de la Universidad de Western Michigan e investigador en el campo del éxito estudiantil en los colegios comunitarios.

Como saben aquí en ITSC, el gobierno dominicano está implementando un nuevo modelo educativo en el país y nos interesa estudiar cómo usted y otros dominicanos logran obtener este título de asociado.

En ese sentido, solicitamos su colaboración al completar esta encuesta de la manera más honesta y objetiva posible, con respecto a cómo percibe los comportamientos de los docentes que han tenido durante todas sus asignaturas aquí en este colegio comunitario, más algunas preguntas de antecedentes académico, trabajo y demográficos.

Esta encuesta es confidencial, lo que significa que no compartiremos datos que identifiquen a ningún participante.

La participación es completamente voluntaria. La encuesta solo tomará menos de 10 minutos de su tiempo. Al final, tendrá la oportunidad de ganar una de las cinco tarjetas de regalo de RD $ 1,000 (US $ 20) para el Grupo CCN (Jumbo, Supermercado Nacional o Centro Nacional Cuesta). Si no acepta participar, puede quedarse tranquilo o hacer otra cosa en la computadora hasta que sus compañeros completen la encuesta sin sufrir ninguna consecuencia. Participar en esta encuesta indica su consentimiento para usar las respuestas que proporciona.

Si tiene alguna pregunta antes o durante la encuesta, puede preguntarme en cualquier momento o comunicarse con estos números: (Mostrar en pantalla)

- Dr. Louann Bierlein Palmer al 269 387-3596
- Victor Henry al 829-763-2840
- Presidente, Junta de Revisión Institucional de Asuntos Humanos al 269-387-8293
- Vicepresidente de Investigación al 269-387-8298

¡Muchas gracias!