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The Impact of Bumpers College of Agricultural, Food and Life Sciences International Programs on Student Motivation for Continuing College and Student Engagement in the Classroom

Olivia Caroline Caillouet
University of Arkansas, Fayetteville

The Impact of Bumpers College of Agricultural, Food and Life Sciences International Programs on Student Motivation for Continuing College and Student Engagement in the Classroom

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by

Olivia Caillouet
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University of Arkansas

This thesis is approved for recommendation to the Graduate Council.

_____
Catherine Shoulders, Ph.D.
Thesis Director

_____
Jeff Miller, Ph.D.
Committee Member

_____
Mary Savin, Ph.D.
Committee Member

Abstract

Colleges aim to increase student achievement, which has been linked to motivation and engagement, as well as increase global partnerships. There is also an increasing demand from students for international programs (IPs) that prepare them to be global citizens. This study aimed to compare student motivation for continuing college and student engagement in the classroom before and after an IP. Students who participated in a Bumpers College of Agricultural, Food, and Life Sciences IP between January 2018 and August 2018 were surveyed prior to, and two weeks and three months post-program participation (n = 24). The instrument had 51 Likert-scale questions and nine demographic questions. The majority of respondents were female (83.3%, n = 20) and all grade classifications were represented. There was a decrease in intrinsic motivation from before-IP to three-months post-IP and two-weeks post-IP to three-months post-IP. There was also a decrease in emotional engagement from pre-IP to three-month post-IP and a decrease in skills engagement from two-weeks post IP. No significant differences were detected for the other six motivation constructs or two engagement constructs. These data provide insight into the impacts of IPs on student motivation and engagement. Additional quantitative studies regarding student motivation and engagement, specifically intrinsic motivation, skills engagement, and emotional engagement are, warranted in regard to IPs. Furthermore, it would be possible to follow this study with qualitative research to determine if students identified specific classroom techniques or post-IP practices that could be implemented to combat the decreases in intrinsic motivation, skills engagement, and emotional engagement after an IP.

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Last, my family and friends deserve special recognition for their constant love and support. This would not have been possible without their kindness every step of the way.

Dedication

This thesis is dedicated to my parents, Darryl and Linda, because they have always encouraged me to do more than I thought was possible. My dad has taught me the value of resilience and perseverance from the moment I took my first steps to the completion of this thesis. Furthermore, my mom has provided me with unconditional love and unwavering support, for which I am forever grateful for. This thesis would not have been possible without them.

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List of Abbreviations

AAAE	American Association for Agricultural Education
ACER	Australian Council for Educational Research
AMCS-28	Academic Motivation Scale
Bumpers College	Dale Bumpers College of Agricultural, Food and Life Sciences
CALS	College of Agriculture and Life Sciences
COEHP	College of Education and Health Professions
CET	Cognitive Evaluation Theory
E1	Skills engagement
E2	Emotional engagement
E3	Interaction/ participation engagement
E4	Performance engagement
EM	Extrinsic motivation
Engineering College	College of Engineering
Fay Jones	Fay Jones School of Architecture and Design
Fulbright College	J. William Fulbright College of Arts and Sciences
GPA	Grade point average
IM	Intrinsic motivation
IP	International program
IPO	International Programs Office
IRB	Internal Review Board
M1	Intrinsic motivation – to know
M2	Intrinsic motivation – toward accomplishment

M3	Intrinsic motivation – to experience stimulation
M4	Extrinsic motivation – identified
M5	Extrinsic motivation – introjected
M6	Extrinsic motivation – external regulation
M7	Amotivation
MAWS	Motivation at Work Scale
NSSE	National Survey of Student Engagement
QR	Quick response code
SCEQ	Student Course Engagement Questionnaire
SDT	Self-Determination Theory
U of A	University of Arkansas
U.S.	United States
Walton College	Sam M. Walton College of Business

Chapter One: Introduction

Introduction and Background of the Study

The greatest challenge that confronts our generation is to feed a rapidly growing population that will rise from seven billion to nine billion or more by 2050 (STEM Food and Ag Council, 2014, p. 5). According to the National Research Council (2009), the term "agriculture" has been limited to that of farming. However, the term harbors meanings for different people and 21st-century agriculture is much broader, encompassing a range of disciplines such as forestry, nutrition, natural resources, environmental science, and life sciences (National Research Council, 2009, p. 14). Agricultural company leaders have stated they need to have college graduates who are globally comfortable and confident (Place, Irani, Friedel, & Lundy, 2004). Colleges of agriculture and natural resources must continue to update courses and curricula to meet changing expectations in the employment arena (Gilmore, Goecker, Smith, & Smith, 2006). In response to industry demands, there have been increased international opportunities within colleges of agriculture. Graham (2012) stated that international programs (IPs) have grown in popularity and have increased in importance for colleges of agriculture. Although there are industry demands for educated workers who are globally competent, issues remain with degree completion rates for colleges and universities and there has been a decline in students who graduate with agriculture and natural resources degrees (Figure 1).

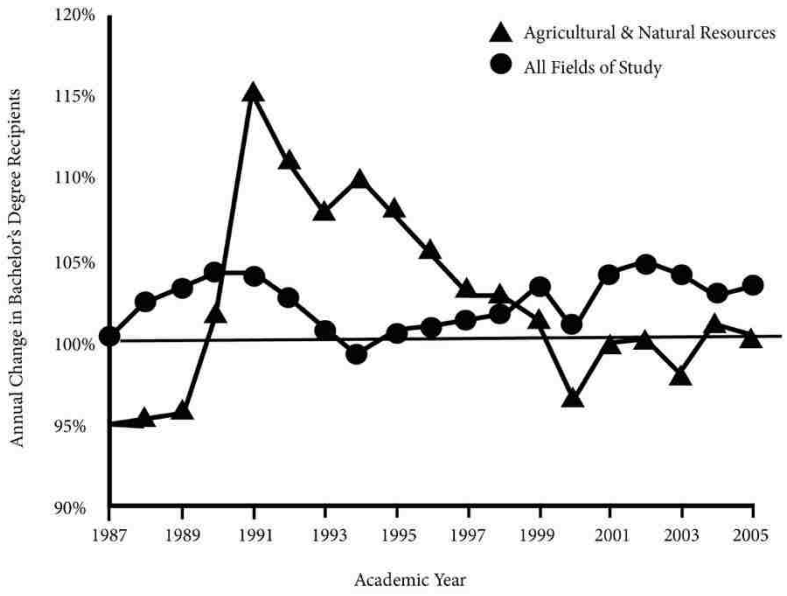

Figure 1. Adapted annual bachelor's degree recipients for agriculture and natural resource as well as all fields of study, 1987-2004. Adapted from "Digest of education statistics," by T. D., Snyder and S. A. Dillow. (2009). Institute of Education Statistics, Washington, DC: National Center for Education Statistics.

There is a pressing need to provide students with opportunities that prepare them to be globally comfortable in addition to move students closer to their end goal of graduation. In response to a globalized world it has been reported that institutions of higher education have focused on "internationalizing" their curricula for many years (Hachtmann, 2012). Study abroad programs or IPs are defined as all educational programs that take place outside the geographical boundaries of the country of origin (Kitsantas & Myers, 2001). During the 2015-16 academic year it was reported that 325,339 United States (U.S.) students studied abroad, which was a 14.8% increase from the 2011-12 academic year (Institute of International Education, 2017). At the individual-campus level, the number of study abroad programs utilized by students are often taken as an indicator of overall institutional quality (Stroud, 2010). Educational justifications for international programs have included increased student awareness of nations, value of diversity,

development of global perspectives, and the importance of international understanding (Kitsantas & Myers, 2001).

The IP evaluations have covered topics that include student perceptions, student attitudes, student benefits, student barriers, and program best practices. A study on undergraduate and graduate students in the College of Agriculture and Life Science at the University of Florida found that respondents' attitudes towards international involvement was "good, beneficial, positive, favorable, and wise" (Place et al., 2004). Barriers exist for study abroad opportunities and are categorized as external or internal barriers to international involvement (Andreasen, 2003). Some external barriers are lack of financial stability, lack of administrative support, and conflict with classes (Andreasen, 2003). Conversely, examples of internal barriers are fear of different cultures, not being able to communicate, and introverted personalities (Andreasen, 2003). It is important to understand internal and external barriers to international experiences because these factors are influenced by structural and psychosocial influences detailed in the conceptual framework that guided this research. Nevertheless, students recognized the benefits of IPs even though barriers existed (Chang et al., 2013). Benefits from IPs have been documented as personal and professional and ranged from increased confidence to increased global competencies for the workplace (Chang et al., 2013).

IP best practices have been outlined using a three-step model with stages: before, during, and after the experience (Appendix A) (Rodriguez & Roberts, 2011). The best practices model for IPs identified the first stage, *before*, with topics such as safety concerns, identifying perceptions, increasing cultural awareness, and logistical preparation (Rodriguez & Roberts, 2011). The second stage, *during*, with general course structure, cultural interactions, experiential learning, and time for reflection (group or individual) (Rodriguez & Roberts, 2011). The third

and final stage, *after*, included post reflections and an evaluation of motivation for future learning (Rodriguez & Roberts, 2011).

There is the opportunity to use IPs within colleges of agricultural, food and life sciences to influence student engagement and student motivation, which have been linked to student achievement. Student engagement is considered an important factor in regard to student achievement (Handelsman, Briggs, Sullivan, & Towler, 2005). However, in spite of encouraging results, it was determined that definitions and measurements of student engagement at the college level were limited (Handelsman et al., 2005). In addition, one of the most important psychological concepts in education has been motivation and has been correlated to various outcomes related to persistence, learning, and performance (Vallerand et al., 1992). Research conducted for student engagement and motivation could have larger implications for student retention and graduation rates that may help meet the needs of the growing population along with industry demands.

Statement of the Problem

Little is known about the influence of IPs on student engagement for attending class and student motivation for continuing college. To date, most IP research has examined the barriers and benefits for students, internationalization of curriculum, and increased cultural sensitivity for students. In general, these studies aimed to increase the number of students who participated in IPs. Dooley and Rouse (2009) stated that faculty and students should be surveyed to understand how IPs can help internationalize curriculum. Andreasen (2003) stated that the reduction of external barriers should be studied to increase collaboration internationally. However, to understand the holistic nature of IPs, the impacts on students who return to college classrooms needs to be evaluated. While previous research has helped improve IP experiences, more

knowledge is needed about the impacts on students post-IP, especially in regard to university retention rates. Engagement and motivation have been linked to student achievement and student persistence (Handelsman et al., 2005; Vallerand et al., 1992). Therefore, IPs could meet industry demands to provide students with global competencies as well as influence student persistence to complete college which could increase the number of educated employees the industry demands. Furthermore, the third stage of the program best practices presented by Rodriguez and Roberts (2011) called for the need to evaluate IPs for student reflections and motivation for future learning. The study of student engagement and student motivation has been linked to student achievement and student persistence. Hence, this research could serve as one method for determining the effectiveness of IPs to produce students who persist through their degree programs. The study of student motivation and student engagement after an IP may allow for future program development that aims to increase student learning, performance, achievement, and persistence to finish college.

Significance of the Study

The American Association for Agricultural Education (AAAE) (Doerfert, 2011, p. 21) stated research priorities which included "meaningful, engaged learning in all environments" and "efficient and effective agricultural education programs" (Doerfert, 2011, p. 24). We sought to use this study as a means to continue to improve international agricultural programs at the University of Arkansas (U of A) and learn more about the impacts of the IPs on student engagement in the classroom as well as motivation for continuing college.

Purpose and Objectives

The purpose of this study was to expand the understanding of impacts that come from collegiate IPs. Due to the gap in the literature it was determined that there was a need to study

international influences for student motivation for continuing college and student engagement in the classroom. A non-experimental, comparative study was deemed appropriate and the research objectives below guided this study:

1) To describe demographics of the survey respondents in the IP group and the comparative group.

2) To determine the differences between student motivation for continuing college and student engagement in the classroom of the IP participants and comparative group.

3) To determine the differences between student motivation for continuing college and student engagement in the classroom before-IP, two-weeks post-IP, three-months post-IP.

Research Hypotheses

The following research hypotheses were determined for this study:

H_1 It is hypothesized that there will be a statistically significant difference in student motivation for continuing college before and after an IP.

H_1 There is no statistically significant difference in student motivation for continuing college before and after an IP.

H_2 It is hypothesized that there will be a statistically significant difference in student engagement in the classroom before and after an IP.

H_2 There is no statistically significant difference in student engagement in the classroom before and after an IP.

Overview of Methodology

This study implemented a non-experimental, comparative design. The targeted population included U of A students who did and did not participate in a Dale Bumpers College of Agricultural, Food and Life Sciences (Bumpers College) International Programs Office (IPO) IP. A census sample was used to access students who had previous IP experience between January 2018 and January 2019; the sampling frame was 101. A convenience sample was used to access students who had no previous IP experience and who were enrolled in a large-service entomology course open to all majors, but with a focus on the Bumpers College discipline. The independent variable was the Bumpers College IP and the dependent variables were students' motivation for continuing college and engagement in the classroom. There were 28 questions from the Academic Motivation Scale (AMSC-28) (Vallerand et al., 1992), 23 questions from the Student Engagement Questionnaire (SCEQ) (Handelsman et al., 2005), and nine demographic questions (Appendix B). The instrument used included Likert-type questions; the motivation constructs used a scale from 1 (does not correspond at all) to 7 (corresponds exactly) and the engagement constructs used a scale of 1 (not at all characteristic of me) to 5 (very characteristic of me). Cronbach's Alpha analysis was run on data from the January 2018 intersessions to determine the instrument's internal reliability. Data ware analyzed using SPSS. A Chi-Square Goodness of Fit Test, MANOVA, one-way repeated anova, means, standard deviations, percentages, and frequencies were used to analyze data.

Limitations

Due to the nature of this study there are several limitations worth noting. At the U of A IPO there were a limited number of programs offered, therefore a limited number of students to study internationally, which reduced the generalizability to other universities. There was also the

limitation of attrition, especially the three-month post-IP survey. Participants were eliminated from this study if the pre and post evaluations were not completed.

Delimitations

This study researched students who had participated in a Bumpers College IP at a land-grant institution thereby limiting the generalizability of the findings. This study only matched student college classification, grade classification, and gender for the convenience sample; the inclusion of additional demographics, such as major, could provide different generalizability.

Assumptions

This study has assumed that students participated in an IP voluntarily and were not required by external factors such as family. Furthermore, this study assumed that students answered the survey questions honestly and to the best of their ability. It was also assumed that students understood each question as the researcher intended.

Key Terms

Achievement – to carry out successfully (Merriam-Webster, 2018) and in this study "achievement" is in connection with completion of a degree.

Agriculture – aspects of farming that encompasses a range of disciplines such as forestry, nutrition, natural resources, environmental science, and life sciences (National Research Council, 2009, p. 14). For this study, all majors within Bumpers College are considered a discipline of agriculture.

Amotivation – "a state lacking the intention to act" (Ryan & Deci, 2000a).

Completion (degree completion) – Students who enrolled in an undergraduate college degree program and graduated within 6 years of starting (National Center for Education Statistics, 2019).

Engagement/ engage – "to hold the attention of" (Merriam-Webster, 2018). For this study, engagement was specifically targeted towards student's engagement in the classroom.

Extrinsic motivation – "doing something in order to obtain a separable outcome and often times includes an instrumental value (Ryan & Deci, 2000a).

International programs (IPs) – all educational programs that take place outside the geographical boundaries of the country of origin (Kitsantas & Myers, 2001). For this study it will be synonymous with "study abroad". However, IP is the preferred terminology.

International Programs Office (IPO) – "provides structured IPs that enhance the marketability of students for career and academic opportunities through faculty driven, sustainable initiatives" (Bumpers International, 2018). Students who completed an IP for this research were enrolled in a program within Bumpers College.

Intrinsic motivation – "the act of doing something because it is inherently interesting or enjoyable" (Ryan & Deci, 2000a).

Motivation/ motive – "something (such as need or desire) that causes a person to act" (Merriam-Webster, 2018). For this study, student motivation was specifically targeted towards student motivation to continue college.

Retention – "the ability of a particular college or university to successfully graduate the students that initially enrolled at that institution (Seidman & Tinto, 2005, p. 3).

Study abroad - all educational programs that take place outside the geographical boundaries of the country of origin (Kitsantas & Myers, 2001). For this study it will be synonymous with "IPs". However, IP is the preferred terminology.

Chapter Two: Literature Review

Introduction

Chapter One detailed the study's purpose, provided an overview of the problem, and gave a justification for the need to evaluate student motivation to continue college and student engagement in the classroom within the context of IPs. The purpose of Chapter Two is to review the theoretical framework provided by Kahu (2013) that guided this study in addition to previous research related to IPs, student motivation, and student engagement (Figure 2).

Theoretical Framework

Student engagement has been widely recognized due to its influence on achievement and learning in higher education; therefore, it continues to be the subject of research and theoretical development (Kahu, 2013). Kahu (2013) has presented a framework that aimed to disentangle the strands of student engagement that would serve as a guide for future research. It was acknowledged that this model does not cover all the possible antecedents and consequences of student engagement (Kahu, 2013). However, the model does recognize this topic of study as a multi-level phenomenon made up of complex relations (Kahu, 2013). The model presented by Kahu (2013) has six facets that describe the process of student engagement: (1) structural influences, (2) psycho-social influences, (3) student engagement, (4) proximal consequences, (5) distal consequences, and (6) sociocultural influences that surrounded the other five factors (Figure 2). Although this model aimed to separate the strands of student engagement, there may be some overlap between the structural and psycho-social influences as well as the proximal and distal consequences (Kahu, 2013). Kahu (2013) clarified that this model was an interconnected networked but acknowledged the dominate direction of flow from the antecedents sections (structural and psycho-social structures) to student engagement, and from student engagement to

the consequence sections (proximal and distal consequences). Kahu (2013) summarized the theoretical model by stating it should be used for projects that focused on narrower populations, which included single institutions as opposed to broad generalizations of student experiences.

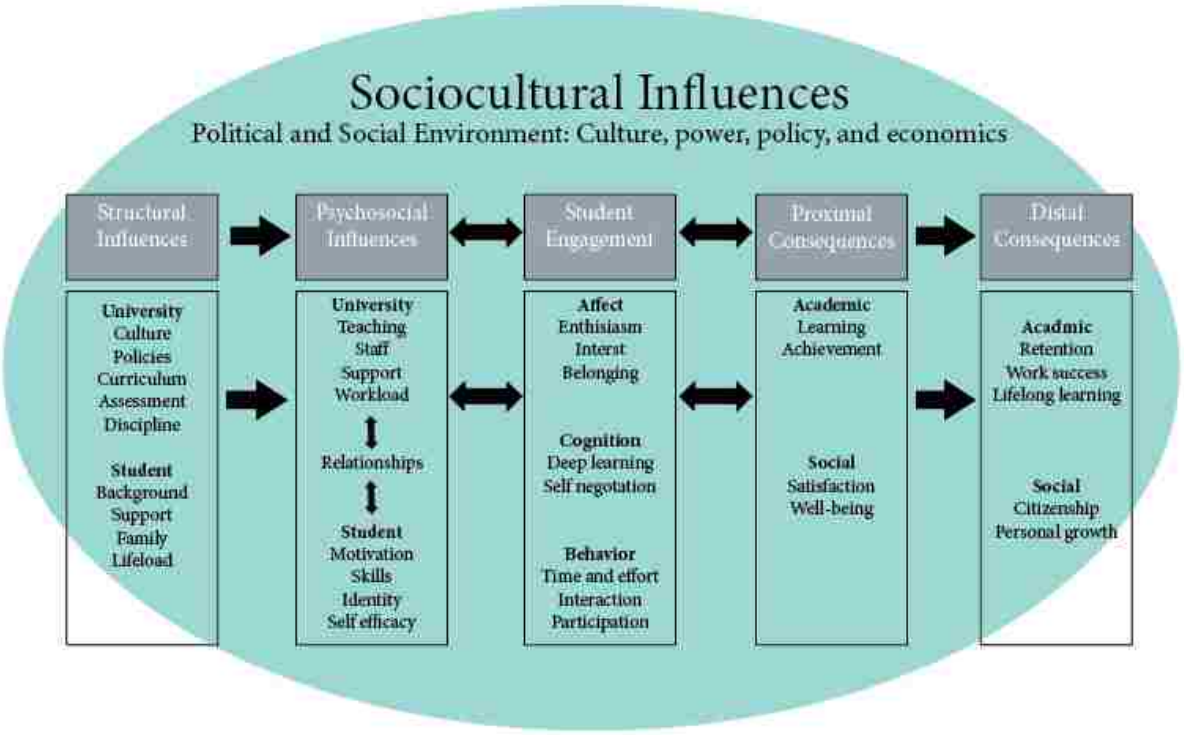

Figure 2. Theoretical framework of student engagement, antecedents, and consequences. Adapted from "Conceptual Framework of Engagement, Antecedents and Consequences," by E. R. Kahu, 2013, *Studies in Higher Education, 38,* p. 76.

Structural influences.

The structural influences described by Kahu (2013) included two main sub-categories, university and student influences, which contributed to students' overall ability succeed. In this model student engagement is a psycho-socio process that is influenced by university institutional factors, relationships, and student variables (Kahu, 2013). The sub-sections of structural influences outlined in this model are university: (1) culture, (2) policies, (3) curriculum, (4) assessments, and (5) university discipline (study area) (Kahu, 2013). In addition to university

factors, it is important to understand the student structural influences in order to gain a holistic perspective of student engagement.

Student engagement is more than just an internal static process (Kahu, 2013). The individual experience is embedded within the socio-cultural context and are influenced by the institution and the student (Kahu, 2013). The sub-sections of the student structural influences are the student's: (1) background, (2) support, (3) family, and (4) lifeload (Kahu, 2013). These factors are depicted to influence the next phase of the model, the psychosocial influences, moving to the right.

Psychosocial influences.

The psychosocial influences within the model of student engagement are divided into two sections (university and student influences) and are connected by the relationships that occur between those groups. The structural influences in the model depicted to the left and the student engagement influences shown to the right, which both have arrows representing their connection to the psychosocial influences. The university psychosocial influences are comprised of university: (1) teaching, (2) staff, (3) support, and (4) workload (Kahu, 2013). The university psychosocial influences were altered by student influences and vice versa.

Similar to university psychosocial influences, the student psychosocial influences have bi-directional impacts from structural influences on the left and student engagement from the right. The sub-sections of the student psychosocial influences included student: (1) motivation, (2) skills, (3) identity, and (4) self-efficacy (Kahu, 2013). The student influences interact with the university psychosocial influences, designated by the relationship section, which has direct outcomes on student engagement and subsequently the proximal as well as distal outcomes discussed later.

Student engagement.

This framework has student engagement at the center and included the three main dimensions which were: (1) student affect, (2) cognition, and (3) behavior. Student affect is comprised of three subsections: (1) enthusiasm, (2) interest, and (3) belonging (Kahu, 2013). Two sub-sections comprise the student cognition section, which were deep learning and achievement. Then, student behavior is described by three sections: (1) time and effort, (2) interaction, and (3) participation (Kahu, 2013). Understanding the components of student engagement is as important as understanding how the entire student engagement section fits into the model.

The student engagement section was influenced by structural and psychosocial influences from the left and proximal consequences on the right. However, the student engagement category does not impact all of those sections of the model in the same way. The student engagement section was shown to impact psychosocial influences on the left and proximal as well as distal consequences on the right.

Proximal consequences.

The proximal consequences are divided into two main sub-sections, academic and social consequences. The academic subsection, learning and achievement, and social subsection, satisfaction and well-being, were included by Kahu (2013) because it mirrored previous work by Tinto (1975). These variables highlighted the importance of social integration in regard to student success. The proximal consequences within the theoretical model were influenced by all sections to the left and those flowed into proximal consequences on the right.

Distal consequences.

Following proximal consequences, there are distal consequences that are collectively influenced by all the other sections within this model. Similar to the proximal consequences, this section is divided into academic and social sub-sections. The distal consequences within academics has three components: (1) retention, (2) work success, and (3) lifelong learning (Kahu, 2013). In addition, the social sub-section was described by citizenship and personal growth. The distal consequences were outcomes of the complex interactions that take place within and between the structural influences, psychosocial influences, student engagement, and proximal consequences.

Sociocultural influences.

The last section of Kahu's (2013) theoretical model described the sociocultural influences that positioned the discussion of student engagement within the wider context of society. The factors that comprised the sociocultural influences included culture, power, politics, and economics. The larger context of student engagement within sociocultural influences aimed to recognize the complex interactions beyond students and the learning environment. For example, Crone and MacKay (2007) found that the millennial generation views college as a commodity but understood the practical application of obtaining a higher level degree. The model proposed by Kahu (2013) has not ignored the wider context for student motivation and engagement.

Theoretical Framework Summary

The most important conclusion of this framework provided by Kahu (2013) stated that this model highlighted the numerous avenues for improving student engagement, and that the responsibility was distributed among everyone involved, students' family and community. The complex array of factors that influenced student engagement allowed for the unique nature of the

individual experience to become clearer. Kahu (2013) stated that this model drew attention to the need for in-depth studies of particular student populations to better understand the effects of these factors on student success.

Student motivation and student engagement were the variables used in this research. Student motivation fits within the psychosocial influences section and is further categorized as a student factor (Kahu, 2013). Student motivation was described in Kahu's (2013) model as a student psychosocial variable along with skills, identity, and self-efficacy. The section variable assessed in this research, student engagement, was described by Kahu (2013) as the central component of the model with three sub categories: affect, cognition, and behavior. Although, for the purpose of this study, student motivation and student engagement were described differently than Kahu (2013), the variable still fit within the model.

Conceptual Framework

Building on the theoretical model provided by Kahu (2013), there were three main lines of literature assessed for the conceptual framework: (1) IPs, (2) student motivation, and (3) student engagement. This research focused on understanding the effects of IPs on student motivation for continuing college and student engagement in the classroom. These variables are displayed within Kahu's (2013) model of student engagement below (Figure 3).

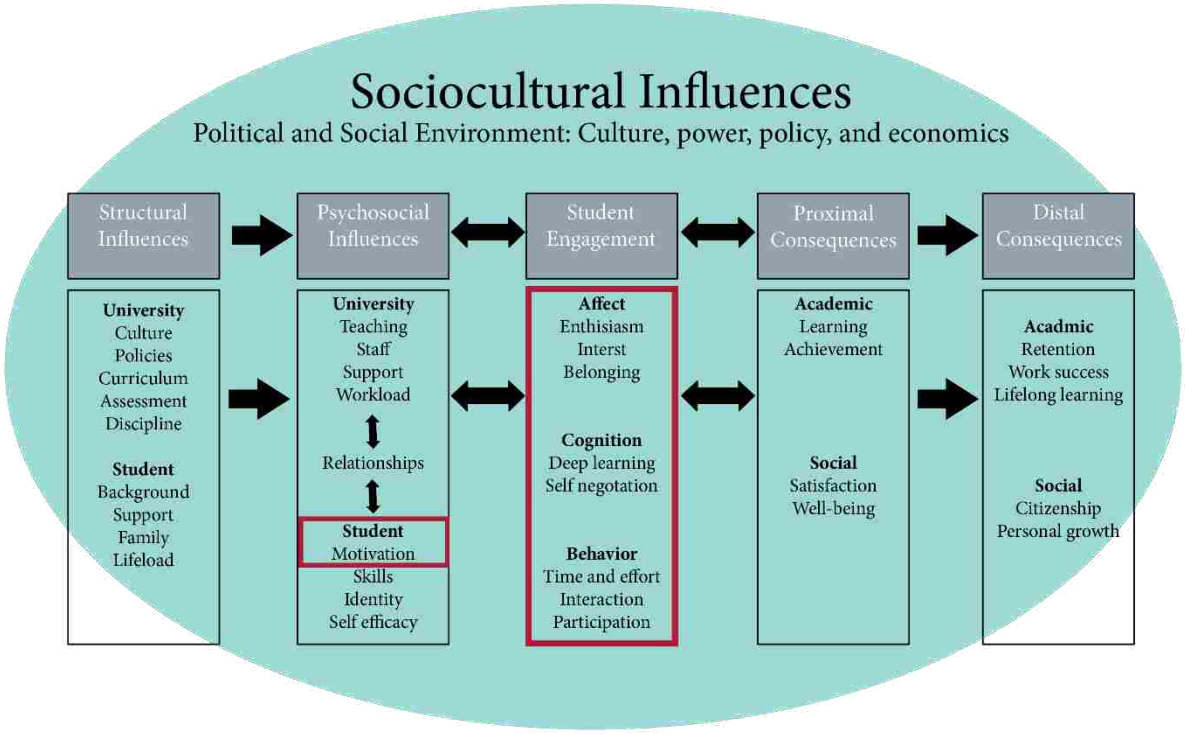

Figure 3. Theoretical framework of student engagement, antecedents, and consequences with highlighted variables this research focused on. Adapted from "Conceptual Framework of Engagement, Antecedents and Consequences," by E. R. Kahu, 2013, *Studies in Higher Education, 38,* p. 76.

International Programs

People in the 21st century are experiencing a global revolution that is fueled by the advancement of technology that has changed how business, education, and research are conducted (Harder & Wingenbach, 2007). For those reasons and more there has been an increase in IP opportunities within colleges. It has been reported that a globally-minded college may be more likely to produce students as global citizens by increasing their tolerance and understanding of other cultures (Chang et al., 2013). Universities have increased their use of IPs to promote student learning, engagement, and provide students with opportunities that further enhance their personal growth, student retention, and lifelong learning. The U of A Office of Study Abroad mission has been stated.

> Our mission at the Office of Study Abroad is to facilitate opportunities for our students to gain new knowledge, personal growth and a global perspective through study, research or practical experience outside of the United States and contribute to the campus wide effort to prepare our students to live and succeed in a global society. (University of Arkansas Office of Study Abroad, 2019).

Furthermore, the U of A has staff focused on the promotion of IPs and according to S. Malloy (personal communication, April 30, 2019) the U of A has continued to communicate and advocate the importance of increased accessibility of IPs. Furthermore, the U of A International Culture Team (ICT) is an example of a higher education organization that advocates for engagement of international students as well as IP participants (International Culture Team, 2019). The College of Agriculture and Life Sciences (CALS) at the University of Florida responded to a campus-wide initiative for increased globalization by naming a faulty member to lead these efforts, beginning an international minor and certificate program and expanding IP opportunities (Irani, Place, & Friedel, 2006). IPs intertwine well with the new educational activities recommended by Windham (2005). IPs utilize interactions with individuals within the country(s) of study, faculty member(s), and potentially other program participants. IPs have also encouraged exploration as a learning style because students have to leave their home country and experienced somewhere different for course credit. Furthermore, colleges have promoted IPs that align with the student's major and have aimed to connect concepts taught in the classroom with what was experienced abroad (Hovland, 2010). Students have also reported that IPs were important, valuable, and meaningful in their professional and personal lives (Harder & Wingenbach, 2007). Rodriguez and Roberts (2011) have indicated best practices for IPs before, during, and after the experiences. However, more research needs to be done to understand the specific educational impacts on students once they return to their home institutions and what best

practices can be implemented to engage and motivate students upon return to their home institutions (Golay, 2006).

Student Motivation

According to Ryan and Deci (2000a), to be motivated means to be moved to do something and the individual is energized and activated to accomplish an end goal. Ryan and Deci (2000b) described their work with the Self-Determination Theory (SDT), which separated motivation into two distinct categories, intrinsic and extrinsic motivation, which was developed from multiple other theories (Appendix C). Furthermore, Gagné, Forest, Gilbert, and Aub (2010) described the continuum of motivation and created the Motivation at Work Scale (MAWS), which was built off the SDT (Ryan & Deci, 1985; Ryan & Deci, 2000a). External regulation was at the low end of the continuum, which referred to doing an activity in order to obtain rewards or avoid punishment. On the other end of the motivation continuum was intrinsic motivation which was defined as doing something for its own sake because it was interesting and enjoyable (Gagné et al., 2010).

Maslow's hierarchy of needs is a theory published in the paper, "A Theory of Human Motivation" where Maslow (1943) explores human motivation on a similar continuum as Ryan and Deci's SDT. However, Maslow's motivation continuum begins with extrinsic motivation on the bottom where basic needs are met and progressed upward through a pyramid where intrinsic motivations were met at the top towards an individual's achievement of self-actualization (Alkaabi, Alkaabi, & Vyver, 2017; Brito, 2018; Corrigan-Doyle, Escobar-Tello, & Lo, 2016; Maslow, 1943; Neher, 1991). Maslow's hierarchy of needs indicated some of the complexities of motivation and driving forces for decision making.

Previous research has been conducted which determined ways student motivation could be sustained throughout the learning process and addressed relevance, attention, confidence, and satisfaction in regard to course material (Keller, 2009). The Ministry of Education in Guyana (2019) also provided suggestions for increasing student motivation, which may be applicable to IPs.

Intrinsic motivation.

Intrinsic motivation has been defined as the act doing something because it is inherently interesting or enjoyable (Ryan & Deci, 2000a). Furthermore, intrinsic motivation has been described as "a natural wellspring of learning and achievement" that often times resulted in high-quality learning and creativity (Ryan & Deci, 2000a). Saeed and Zyngier (2012) determined that students who engaged in intrinsic motivation also demonstrated beneficial learning characteristics such as enjoyment while working with classmates.

Engagement and motivation are interconnected and have shared socio-cultural factors that influence the proximal and distal consequences presented by Kahu (2013). Engaged students have been found to be intrinsically motivated (Zepke & Leach, 2010). Salanova, Schaufeli, Martınez, and Breso (2010) agreed that student engagement played a key role in the educational psychology of academic performance and intrinsic motivation (as cited in Mesurado, Richaud, & Mateo, 2016). Intelligence and motivation have been reported to be malleable attributes of students that can be increased through student effort and good teaching practices (Corno & Mandinach, 2004). Hu and Kuh (2002) observed that a vital factor for student success was the motivation and effort the learners generated themselves. When it comes to international involvement Andreasen (2003) stated 20 potential barriers which were both extrinsic (i.e., time and financial concerns) and intrinsic (i.e., fear and lack of motivation) factors.

Determining what motivates and engages students is essential for implementing student-centered approaches to learning (Toshalis & Nakkula, 2012). Motivating students to apply themselves has required the teacher knowing them, their beliefs, their anxieties, and their backgrounds and effort to create customized approaches for individuals (Toshalis & Nakkula, 2012). Teachers can then request the student's help in identifying factors that might increase his or her motivation such as changes to the classroom and curriculum or changes to the individual's beliefs and behaviors (Toshalis & Nakkula, 2012). Motivation is a by-product and antecedent of engagement and plays an active role in student learning and therefore student outcomes (Toshalis & Nakkula, 2012). Personal relevance has been defined as a student's perception of whether the course instruction or content satisfies personal needs, personal goals, and or career goals (Keller, 1983). A study conducted by Frymier and Shulman (1995) found that relevance, also known as the "what's in it for me" factor, was an important instructional technique that increased student's motivation. Some practices that can be implemented to help with personal relevance included the use of explicit explanations to demonstrate relevance of the content to students, matching content with career goals and experiences, making the content familiar to students, and the involving students in the course design to align their goals with the instructors (Keller, 1987).

The instrument used in this study targeted three types of intrinsic motivation: (1) to know (M1), (2) toward accomplishment (M2), and (3) to experience stimulation (M3) (Vallerand et al., 1992). The M1 construct has been described as the act of performing a task for the pleasure and the satisfaction that one experiences while learning, exploring, or trying to understand something new (Vallerand et al., 1992). An example of an M1 statement used in this study was, "I go to college because I experience pleasure and satisfaction while learning new things" (Vallerand et al., 1992). Furthermore, M2 can be defined as the fact of engaging in an activity for the pleasure

and satisfaction of the attempt to accomplish or create something (Vallerand et al., 1992). An example of an M2 statement used in this study was "I attend college for the pleasure I experience while surpassing myself in my studies" (Vallerand et al., 1992). Last, M3 is defined by students who go to class to experience the excitement of a stimulating discussion, or who read books for the intense feelings of cognitive pleasure that comes from passionate and exciting passages (Vallerand et al., 1992). An example of a M3 statement used in this research was "I attend college for the pleasure that I experience when I feel completely absorbed by what certain authors have written" (Vallerand et al., 1992). These students were motivated to experience stimulation through education (Vallerand et al., 1992). In general, intrinsic motivation refers to doing an activity for itself, and the pleasure and satisfaction derived from participation (Deci, 1975; Deci and Ryan, 1985).

Extrinsic motivation.

Extrinsic motivation has been defined as the act of doing something because it leads to a separable outcome (Ryan & Deci, 2000a). In comparison to intrinsic motivation, extrinsic motivation has been described as having varied types with some that are considered more impoverished forms of motivation and some that reflected the value or utility of the task (Ryan & Deci, 2000a). Teachers have been found to use different types of incentives with student to achieve high academic behavior (Pintrich & Schunk, 2002). However, external motivations such as offering awards has been found to directly influence a person's perception of competence and self-determination (Deci, Koestner, & Ryan, 2001).

Deci and Ryan used the SDT to rank types of extrinsic motivation from lower to higher levels of motivation: identification (M4), introjection (M5), and external regulation (M6), respectively (Chue & Nie, 2016; Deci & Ryan, 1985). These types of extrinsic motivations were

also the three constructs used in the instrument for this research (Vallerand et al., 1992). First, the M4 construct was described as the behavior of value and ability to understand the importance of the activity, especially perceived as chosen by oneself (Vallerand et al., 1992). This type of motivation occurs when the internalization of extrinsic motivation becomes regulated through identification (Vallerand et al., 1992). An example of a M4 statement created by Vallerand et al. (1992) was "I attend college because I think that a college education will help me better prepare for the career I have chosen. (Vallerand et al., 1992). Conversely, M5 is when the individual internalizes the reasons for their actions (Vallerand et al., 1992). Thus, a student may say, "I study the night before exams because that's what good students are supposed to do" (Vallerand et al., 1992). An M5 statement used in this research was "I attend college because of the fact that when I succeed in college I feel important" (Vallerand et al., 1992). Last, M6 has been defined as the use of external means, such as rewards, as well as the punishments that motivate an individual (Vallerand et al., 1992). For instance, a student might say, "I study the night before exams because my parents force me to (Vallerand et al., 1992). A M6 statement used in this research was "I attend college because only with a high-school degree I would not find a high-paying job later on" (Vallerand et al., 1992).

Amotivation.

Amotivation has been defined as lacking any motivation or intention to act (Ryan & Deci, 2000a). Furthermore, amotivation is the result of not valuing an activity (Ryan, 1995), not feeling competent to do it (Deci, 1975), or as Seligman stated not believing the effort will result in the desired outcome (as cited in Ryan and Deci, 2000b). Vallerand et al. (1992) built on the work by Ryan and Deci (2000b) and explained amotivation in more detail,

> This concept is termed amotivation. Individuals are amotivated when they do not perceive contingencies between outcomes and their own actions. They are neither

> intrinsically nor extrinsically motivated. When amotivated individuals experience feelings of incompetence and expectancies of uncontrollability. They perceive their behaviors as caused by forces out of their own control. They feel deceived and start asking themselves why in the world they go to school. Eventually they may stop participating in academic activities. (p. 1007)

An example of an amotivation statement used in this research was "I attend college because I once had good reasons for going to college; however, now I wonder whether I should continue" (Vallerand et al., 1992).

Student Engagement

Engagement has been described in numerous ways, but for the purpose of this research engagement has been defined by the Australian Council for Educational Research (ACER) as "students' involvement in activities and conditions that are linked with high-quality learning" (Australasian Survey of Student Engagement, 2019). Furthermore, the ACER (2019) served as the predecessor to the development of the National Survey of Student Engagement (NSSE) and stated,

> A key assumption is that learning outcomes are influenced by how an individual participates in educationally purposeful activities. While students are seen to be responsible for constructing their own knowledge, learning is also seen to depend on institutions and staff generating conditions that stimulate student involvement. (Australasian Survey of Student Engagement, 2019)

As educational professionals aim to promote "school engagement" in an effort to enhance student outcomes a shared definition and appropriate measures must be clarified (Jimerson & Green, 2014). It was suggested that school engagement was a multifaceted construct that historically has included (1) affective, (2) behavioral, and (3) cognitive dimensions (Jimerson & Green, 2014). These factors are dynamically interrelated for individuals and they are not isolated processes (Fredricks et al., 2004). Engagement was described as an inspiring, positive state of mind that is characterized by vigor, dedication, and absorption (Schaufeli & Bakker, 2004). The

concept was designed initially to understand work-related well-being (Ouweneel & Schaufeli, 2013). Recently, the idea of study engagement (or academic engagement) was introduced (Ouweneel & Schaufeli, 2013).

The growing interest in student engagement has been partially due to its malleability as a result from interactions of the individual within the context of the individual's environment (Fredricks, Blumenfeld, & Paris, 2004). Affective engagement included: (1) the feelings of enthusiasm, (2) interest and relevancy, and a (3) sense of belonging to the educational system (Fredricks et al., 2004). The concept of student engagement has attracted growing interest with the objective to increase levels of academic achievement in addition to lower levels of student boredom, and disaffection, and dropout rates in urban areas (National Research Council & Institute of Medicine, 2004). The NSSE listed student engagement indicators as: (1) academic challenge, (2) learning with peers, (3) experiences with faculty, and (4) campus environment. However, this study chose to use the engagement constructs described by Handelsman et al. (2005). There was some overlap between the NSSE engagement indicators and Handelsman's (2005) engagement constructs: (1) skills engagement, (2) emotional engagement, (3) participation/ interaction engagement, and (4) performance engagement, but Handelsman (2005) stated that the NSSE focused on student active learning and other educational experiences but did not focus on individual courses. The NSSE provided a broader engagement evaluation of students' participation in programs and activities that institutions provided for their learning and personal development (National Survey of Student Engagement, 2018). Conversely, the SCEQ, developed by Handelsman et al. (2005), was a more focused assessment on students' course engagement; therefore, it was used in this study.

Skills engagement.

Skills engagement represented student engagement through practicing skills (Handelsman et al., 2005). Some of the items used in the SCEQ instrument included "taking good notes in class" and "looking over class notes between classes to make sure I understand the material" (Handelsman et al., 2005). Some of the statements associated with skills engagement were "applying the course material to my life" and "really desiring to learn the material" (Handelsman et al., 2005). The SCEQ has been modified and applied to student engagement towards online courses, which confirmed the ability to adapt this instrument towards student engagement post-IP (Dixson, 2010).

Emotional engagement.

Drawing on work by Furrer and Skinner (2003), emotional engagement has been defined as affective attitudes toward and identification with school and a sense of belonging. Ryan and Deci (2000a) stated three psychological needs that can prevent or advance engagement: (1) autonomy, (2) competence, and (3) a sense of belonging. Therefore, outcomes for success included students working autonomously, feeling competent to do the required learning, and feeling they belonged in their programs and institution. With other factors equal, the higher the degree of individual integration into the college system resulted in a stronger commitment to college completion and the specific institution (Tinto, 1975). In addition, emotional engagement has been described as student engagement through emotional involvement in the class material (Handelsman et al., 2005).

Participation/ interaction engagement.

One common prerequisite for engaged learners was "relevancy" (Taylor & Parsons, 2011). Learners have requested that their learning apply to real-life scenarios whenever possible

as opposed to being theoretical and text-based (Taylor & Parsons, 2011). It has been stated that student engagement increased when classroom contexts met their needs for relatedness, which was more likely to occur when teachers and peers created a caring and supportive environment (Fredricks et al., 2004). Furrer and Skinner (2003) found that students who perceived relatedness to teachers, parents, and peers influenced emotional engagement. Students explained they wanted their work to be intellectually engaging, while also being relevant to their lives (Taylor & Parsons, 2011). Working with problems or community issues created a sense of purpose as well as engaged students through the learning experience (Willms, Friesen, & Milton, 2009). Handelsman et al. (2005) described participation/ interaction engagement as engagement through participation in class and interactions with instructors and other students. Some of the statements for this construct included 'raising my hand in class", "having fun in class", and "participating in small group discussions" (Handelsman et al., 2005).

Student engagement was also said to be improved through respectful relationships and interaction with others virtually and personally (Taylor & Parsons, 2011). Those surveyed by Willms et al. (2009) stated that they wanted interactions with people within and beyond the school environment. Dunleavy and Milton (2009, p. 10) asked students what their ideal learning environment for engagement was and responses included various opportunities: to learn from and with each other and people in their community, to connect with experts, and to have more dialogue and conversation. Moran and Gonyea (2003) found that peer interactions had the strongest ability to predict student engagement and outcomes of success. It was also suggested that students should be able to interact with faculty and researchers outside of educational curriculum and be able to develop meaningful relationships with them (Windham, 2005, p. 5.8).

The requirement for interaction highlighted the need for curriculum that integrated social interactions and that complemented educational instruction.

Performance engagement.

It has been reported that the work for students needs to be relevant, meaningful, and authentic, but that also worthy of their time and attention (Willms et al., 2009, p. 34). Student engagement was represented by the time and energy students invested in educationally purposeful activities according to Kahu (2011). Indicators of engagement that occurred throughout literature included (1) participation in school-related activities, (2) amount of time spent on homework, and (3) rate of homework completion (Jimerson & Green, 2014). Handelsman et al. (2005) stated performance engagement represented student engagement through levels of performance in the class. Items for this construct included "being confident that I can learn and do well in the class", "getting a good grade", and "doing well on the tests" (Handelsman et al., 2005).

Summary of Literature

Students can be encouraged to learn by setting educational goals then reflecting on the goals to make further progress towards completion (Rodriguez & Rogers, 2011). A student's awareness of their learning process and their goals and accomplishments will likely encourage motivation for further learning (Rodriguez & Rogers, 2011). Engagement builds on itself after it has been started and has contributed to increased improvements of distal outcomes such as students' interest (Fredricks et al., 2004). The combination of academic challenge and social support has resulted in an increased ability to learn (Toshalis & Nakkula, 2012). Axelson and Flick (2011) concluded that students and institutions each have responsibilities for the overall quality of students learning. Furthermore, engagement was not just a measure of how involved

students were in their learning, but also indicated how involved institutions were with their students (Axelson & Flick, 2011). To better understand learning it must be understood how learners' beliefs, values, and experiences influence how their perspectives and meanings are constructed (Perry et al., 2012). In addition, Kahu (2013) highlighted that there are numerous avenues for improving student engagement, and that the responsibility for this objective lies with everyone: the students, the teachers, the institutions, and the government.

Criteria for Selection of Research Included in the Literature Review

The proposed literature search aimed to identify, assimilate, summarize, and synthesize studies that reported findings of IPs, student motivation, student engagement, and agricultural colleges. The following databases were used: Ebsco, Google Scholar, ProQuest, and JSTOR. There were a variety of resources included in the literature review section such as theses, dissertations, peer reviewed articles, proceedings, and websites.

Chapter Three: Methods

The methods section will review the statement of the problem, purpose of the study, research objectives, and hypothesis that were discussed in Chapter One. Then, the subjects who participated in this study will be described along with the instrumentation used in the data collection process. This chapter will be concluded with an explanation of the procedures for data collection and the process for data analysis.

Restatement of the Problem

In order to understand the holistic nature of IPs, the impacts on students who returned to college classrooms after an IP needs to be evaluated. To date, little to no research has been performed that has examined the effects of IPs on students' motivation and engagement upon returning to the classroom. While research has been conducted that has helped improve IP experiences, more knowledge is needed about the impacts on students post-IP. Motivation and engagement have been linked to student achievement and student persistence (Handelsman et al., 2005; Vallerand et al., 1992). Colleges aim to increase student achievement, which has been linked to motivation and engagement, and increase global partnerships. In addition, there has been an increasing demand from students for IPs that prepare them to be global citizens (Redden, 2018). Furthermore, the third stage of IP best practices presented by Rodriguez and Roberts (2011) call for the need to evaluate student reflections and motivations for future learning. Hence, the study of student motivation and student engagement after an IP may allow for future program development aimed to increase student learning, performance, achievement, and persistence to finish college.

Purpose

The purpose of this study was to expand the understanding of impacts which come from collegiate IPs. Due to the gap in the literature it was determined that there was a need to study international influences on student motivation for continuing college and student engagement in the classroom after they have returned to their home institution.

Objectives

The purpose of this study was to expand the understanding of impacts which come from collegiate study abroad opportunities. Due to the gap in the literature it was determined that there was a need to study international influences for student engagement upon return and student motivation for continuing college. A non-experimental, comparative study was deemed appropriate and the research objectives below guided this study:

1) To describe demographics of the survey respondents in the IP group and the comparative group.

2) To determine the differences between student motivation for continuing college and student engagement in the classroom of the IP participants and comparative group.

3) To determine the differences between student motivation for continuing college and student engagement in the classroom before-IP, two-weeks post-IP, three-months post-IP.

Research Hypotheses

The following research hypotheses were determined for this study:

H_1 It is hypothesized that there will be a statistically significant difference in student motivation for continuing college before and after an IP.

H_1 There is no statistically significant difference in student motivation for continuing college before and after an IP.

H_2 It is hypothesized that there will be a statistically significant difference in student engagement in the classroom before and after an IP.

H_2 There is no statistically significant difference in student engagement in the classroom before and after an IP.

Subjects

Subjects that participated in this research were students enrolled at the U of A. The subjects self-selected into one of two groups, the IP participants and convenience sample.

Convenience sample.

Students enrolled in the Bumpers College entomology courses were surveyed to serve as a sample representative of U of A students.

International program sample.

The IP participants were any U of A students who enrolled in and participated in a Bumpers College IP between January 2018 and January 2019. A census was obtained from this population.

Instrumentation

The instrument used in this research had a total of 63 questions. The majority of questions were used from previously tested instruments and the demographic questions were created specifically for the purpose of this research. Students were told prior to completing the survey that it was voluntary, and their participation represented their complied consent to participate in this study. Furthermore, the research consent stated that their responses would in no way reflect on their grades in their courses. The instrument was approved by the Internal Review Board (IRB) and data collected was kept confidential by the extent allowed by law and U of A policy (Appendix D).

Instrument development.

The 2018-2019 instrument used in this research study was titled, *Student Motivation and Engagement for Attending College Survey*. The survey was derived from two previously tested instruments. The three main sections of the instrument were (1) perceptions of motivation, (2) perceptions of engagement, and (3) demographics.

The first instrument, AMS-C 28, was first developed in French then translated and tested in English (Vallerand et al., 1992) (Appendix E). The AMS-C 28 was comprised of three general categories: intrinsic motivation (IM), extrinsic motivation (EM), and amotivation. The seven constructs that make up the AMS-C 28 included: (1) IM-to know, (2) IM-toward accomplishment, (3) IM-to experience stimulation, (4) EM-external regulation, (5) EM-external introjection, (6) EM-identification, and (7) amotivation. The AMS-C 28 instrument used Likert-type questions with a scale from 1 (does not correspond at all) to 7 (corresponds exactly). Intrinsic motivation was defined as performing an activity for the enjoyment and pleasure that one experiences while learning and included constructs used in the instrument such as (1) to know, (2) toward accomplishments, and (3) to experience stimulation (Vallerand et al., 1992). Extrinsic motivation, unlike intrinsic motivation, included a wide variety of involvement which was done for the instrumental value of the activity (Ryan & Deci, 2000a). Extrinsic motivation had constructs used in this instrument that included items from least motivated to more motivated: (4) external regulation, (5) external introjected, and (6) identification (Vallerand et al., 1992). Last, amotivation was another motivational construct because the individual did not perceive contingencies between outcomes and their own actions, hints they were not motivated intrinsically or extrinsically (Vallerand et al., 1992). There were four questions per construct.

The SCEQ was also included in this instrument and was comprised of 23 questions broken down into four constructs: (1) skills engagement, (2) emotional engagement, (3) participation/ interaction engagement, and (4) performance engagement (Handelsman et al., 2005) (Appendix F). The engagement constructs used a scale of 1 (not at all characteristic of me) to 5 (very characteristic of me).

Following the perceptions of engagement section there were 10 demographic questions that asked student's current age, grade point average (GPA), gender, college classification, major, and more.

Therefore, the complete instrument was divided into three main sections: 1) perceptions of motivation (28 questions), 2) perceptions of engagement (23 questions), and 3) demographics (10 questions).

Instrument validity.

Three Bumpers College students were recruited to complete cognitive interviews using the instrument prior to the pilot study. During the cognitive interviews, students were asked to have no internal dialogue and read the survey along with any thoughts that came into their mind. Guidelines developed by Willis (1999) were followed for these cognitive interviews. The purpose of the cognitive interviews was to try and determine if any questions required edits or modifications prior to the pilot study. There were several changes made to the instrument based on the cognitive interviews. A gender related question was changed from multiple choice to an open response. The student motivation statements were altered to all flow in complete sentences with the prompt that prefaced the statements, "I attend the U of A because". An open response section for student's concentration within their major was added. The question "how many times have you studied abroad" was changed to "how many countries have you studied abroad in" to

gain more clarity in regard to students' international experiences. The GPA question was changed to say, "current cumulative GPA" and removed confusion with the students' term GPA. Last, one student noticed errors with the scales for the GPA multiple choice options, and they were corrected accordingly. After the cognitive interviews, the revised survey was reviewed by three faculty members, two who had served as faculty leaders for Bumpers College IPs, for face and content validity.

Instrument reliability.

A pilot study was performed with students who participated in the IPO 2018 January intersession courses in New Zealand and India. There were 18 students with six different majors who participated in the New Zealand IP title, New Zealand: Human and Animal Interactions. There were seven students with all different majors who participated in the Indian IP titled, Experiential Learning in Indian Agriculture. Of those seven students, six completed all three surveys. Internal validity was run using SPSS Cronbach's Alpha. The internal validity scores for the perceptions of motivation section with the constructs for: (1) IM-to know, (2) IM-toward accomplishment, (3) IM-to experience stimulation, (4) EM-external regulation, (5) EM-external introjection, (6) EM-identification, and (7) amotivation were 0.86, 0.86, 0.77, 0.72, 0.82, 0.71, and 0.79, respectively. The internal validity scores of the perceptions of engagement section for the constructs of (1) skills engagement, (2) emotional engagement, (3) participation/ interaction engagement, and (4) performance engagement were 0.74, 0.73, 0.80, and 0.80, respectively.

International Programs

The research participants were students who enrolled in Bumpers College IPs. These IPs were open to all majors at the U of A. The programs used for this study took place at different times of the year: May intersession, summer session one, summer session two, and August intersession. Also, the Bumpers College IP varied in location and areas of focus. The programs studied in this research had different titles:

- Sustainability in the Euro Food System – Belgium, May intersession
- Community Development in Mozambique – Mozambique, Summer Session I
- Animals, Aborigines, Rainforests and Reef – Australia, August intersession
- Scotland Internship Exchange – Scotland, Summer session one and two
- Swaziland Service-Learning Internship – Swaziland, Summer session one and two

Procedures for Convenience Sampling

Convenience sample data collection.

Surveys were distributed to students 27 April 2018 during the normal entomology class time. This course was chosen because it is a Bumpers College course, which was the same as the IP courses surveyed for this research. Furthermore, the course was open to all U of A students and included all grade classifications, except graduate students, which was the same as the IP programs used for this study. Students were verbally informed that this survey was completely voluntary and would take approximately 10 minutes to complete. Students were given the choice of either completing the survey online through Qualtrics with the use of a link or Quick Response (QR) code reader that was displayed via a PowerPoint slide. Students were also given the option to complete the survey on paper. The convenience sample was only given the survey once.

International program participant data collection.

Students in the select IPs were also able to complete the survey via Qualtrics online or on paper which took approximately 10 minutes and were verbally informed that this survey was completely voluntary. Students completed the survey within one month prior to leaving for their IP destination. Then, the survey was completed via Qualtrics online or on paper within two weeks of arrival back to the U.S. from their IP and again three months after the conclusion of their IP.

Data Analysis Procedures

Data were analyzed using SPSS (International Business Machines Corporation, 2017). As mentioned above, the Cronbach's Alpha was used to determine internal reliability of the instrument for the pilot study. Then, a Chi-Square Goodness of Fit Test was run to determine whether the distributions of grade classification, gender, and college classification of before-IP participants were of even proportions as the convenience sample. This Chi-Square Goodness of Fit Test was run twice, once with all before-IP participants and convenience sample respondents and once without those with previous IP experience. A MANOVA was used to determine if there were significant differences between before-IP respondents and the convenience sample and was run again with those sample groups, minus students with previous IP experiences, to determine if differences existed. There were univariate outliers observed in these data, as assessed by inspection of a boxplot for values greater than one and a half box-lengths from the edge of the box. However, the outliers were not entry errors or measurement errors and kept in the analysis. Not all of the motivation constructs were normally distributed, as assessed by Shapiro-Wilk's test ($p > 0.05$). However, the MANOVA is considered robust to deviations from normality. A one-way repeated measure ANOVA was used to determine if there was a change over time within the

IP participants before-IP, two-weeks post-IP, and three-months post IP. This was followed-up with a pair-wise comparison to determine what constructs were significantly different over time. Last, frequencies and percentages were used to determine demographics.

Chapter Four: Results

Introduction

The previous chapter described the methodology for this study and Chapter Four presents the results. The results are organized into six main sections according to how the data were analyzed in addition to how the questions were presented in the instrument. The first section included response rates, the second section is the demographics, the third section covers the Chi-Square Goodness of Fit Test results, the fourth section provides motivation and engagement means, the fifth section provides MANOVA results, and the sixth section provides the one-way repeated ANOVA results.

Response Rates and Demographics

Pilot study.

There were 24 students contacted for the pilot study and the before-IP respondents had 24 respondents (100.0% response rate), two-weeks post-IP had 23 respondents (95.8% response rate), and three-months post-IP had nine respondents (37.5% response rate). As mentioned above, the construct reliability was evaluated using SPSS. Cronbach's Alpha statistics were calculated for the motivation and engagement constructs. The reliability of responses related to these constructs were labeled as "high" in all instances (University of California, Las Angeles, 2019).

The largest percentage of students had been to 1-2 countries (33.0%) before their IP and 6+ countries (29.2%) after their IP (Appendix G). Also, the largest percentage of the pilot study students had studied abroad in 2 countries (33.3%) prior to their IP (Appendix H). Students were mostly female (75.0%), seniors (62.0%), and enrolled in the Honors College (82.6%) (Appendix I and Appendix J). The most pilot study respondents were enrolled the most in the J. William

Fulbright College of Arts and Sciences (Fulbright College) (50.0%), followed by Bumpers College (29.2%), and the College of Engineering (Engineering College) (20.8%) prior to their IP (Appendix K). The age in years of respondents remained the same before and after the IP with the majority of students 21-22 years old (66.7%) (Appendix L). Most of the students had a 3.7-4.0 GPA before and after the IP on a scale of 4.0 (83.3% and 95.8%) (Appendix M).

International program participants.

Out of the 75 students contacted for the before-IP, 65 students completed the survey for a response rate of 86.6%. Two students that completed the before-IP survey did not attend their proposed IP, therefore they were not contacted for the two-weeks post-IP or three-months post-IP surveys. Of the 73 students contacted two-weeks post-IP, 38 completed the survey for a response rate of 52.0%. Last, of the 73 students contacted three-months post-IP, 34 students completed the survey for a response rate of 46.6%. It should be noted that 24 students completed all three consecutive surveys for an overall survey response rate of 32.9%.

Comparative group.

For the comparative group a convenience sample was taken from an undergraduate entomology course at the U of A. The course had 126 students enrolled in the course and 101 completed the survey for a response rate of 80.2%.

In the table below are demographic data of IP participants and the comparative group who responded to the question "How many countries have you traveled to?" This table has frequencies of student responses along with the percentage of students who responded to one of the six choices.

Table 1

The Number of Countries Survey Respondents Traveled to in the Comparative Group (n = 101) and Before, Two-weeks Post, and Three-months Post International Program (IP) (n = 24)

Number of countries traveled to	*f*	%	*f*	%
Before-IP			Comparative group	
None	1	4.2	15	14.9
1-2	10	41.7	33	32.7
3-4	7	29.2	28	27.7
5-6	4	16.7	15	14.9
7-8	0	0.0	5	5.0
9+	2	8.3	5	5.0
Two-weeks post-IP				
None	0	0.0		
1-2	5	20.8		
3-4	9	37.5		
5-6	6	25.0		
7-8	2	8.3		
9+	2	8.3		
Three-months post-IP				
None	0	0.0		
1-2	5	20.8		
3-4	9	37.5		
5-6	7	29.2		
7-8	1	4.2		
9+	2	8.3		

The largest percentage of participants who completed the before-IP, two-weeks post-IP, and three-months post-IP survey had traveled to 1-2 countries before their IP (41.7%), followed by students who had been to 3-4 countries (29.2%) (Table 1). The largest percentage of the comparative group respondents had been to 1-2 countries (32.7%) followed by 3-4 countries (27.7%) (Table 1). Also, respondents had been to no countries or 7-8 countries at the same percentage (14.9%) (Table 1).

In the table below are demographic data of IP participants and the comparative group who responded to the question "How many of those countries did you study abroad in?" This table has frequencies of student responses along with the percentage of students who responded to one of the four choices.

Table 2

The Number of Countries Survey Respondents Had Studied Abroad in the Comparative Group (n = 101) and Before, Two-weeks Post, and Three-months Post International Program (IP) (n = 24)

Number of countries studied abroad in	*f*	%	*f*	%
Before-IP			Comparative group	
None	14	58.3	87	86.1
1	6	25.0	9	8.9
2	2	8.3	5	5.0
3+	2	8.3	0	0.0
Two-weeks post-IP				
None	0	0.0		
1	14	58.3		
2	6	25.0		
3+	4	16.7		
Three-months post-IP				
None	0	0.0		
1	16	66.7		
2	4	16.7		
3+	4	16.7		

The majority of IP participants that completed the before-IP, two-weeks post-IP, and three-months post-IP survey had not previously participated in an IP (58.3%) (Table 2). The other 25% of respondents had studied abroad in one country prior to their IP experience (Table 2). A majority of the comparative group students had not been on an IP experience (86.1%), while a small percentage of students had been on one or two IP experiences (8.9% and 5.0%) (Table 2).

In the table below are demographic data of IP participants and the comparative group who responded to the question "What grade classification are you?" This table has frequencies of student responses along with the percentage of students who responded to one of the five choices.

Table 3

The Grade Classification of Survey Respondents in the Comparative Group (n = 101) and Before, Two-weeks Post, and Three-months Post International Program (IP) (n = 24)

Grade classification	*f*	%	*f*	%
Before-IP			Comparative group	
Freshman	3	12.5	24	24.2
Sophomore	6	25.0	43	43.4
Junior	9	37.5	26	26.3
Senior	2	8.3	6	6.1
Graduate	4	16.7	0	0.0
Two-weeks post-IP				
Freshman	0	0.0		
Sophomore	3	12.5		
Junior	7	29.2		
Senior	10	41.7		
Graduate	4	16.7		
Three-months post-IP				
Freshman	0	0.0		
Sophomore	3	12.5		
Junior	7	29.2		
Senior	10	41.7		
Graduate	4	16.7		

All student grade classifications were represented before the IP with the greatest percentage of students marked as juniors (37.5%) and sophomores (25.0%) (Table 3). However, two-weeks post-IP the largest percentage of survey respondents were seniors (41.7%) followed by juniors (29.2%) (Table 3). Freshman students comprised the least percentage of students before and post-IP (Table 3). All grade classifications were not represented in the comparative group, but the largest percentage of students were sophomores (43.4%), followed by juniors (26.3%), and freshman (24.2%) (Table 3). There were no graduate students who completed the comparative group survey.

In the table below are demographic data of IP participants who responded to the open response question "What is your gender?" This table has frequencies of student responses along with the percentage of students who responded to one of the two most popular categories. Although this question was open response, there were no responses different from male or female.

Table 4

The Gender of Survey Respondents in the Comparative Group (n = 101) and Before, Two-weeks Post, and Three-months Post International Program (IP) (n = 24)

Gender classification	*f*	%	*f*	%
Before-IP			Comparative group	
Male	4	16.7	41	41.4
Female	20	83.3	58	58.6
Two-weeks post-IP				
Male	3	12.5		
Female	20	83.3		
No response	1	4.2		
Three-months post-IP				
Male	3	12.5		
Female	20	83.3		
No response	1	4.2		

The majority of IP participant survey respondents were females (83.3%) and the rest were males (Table 4). Also, there was a majority of female respondents (58.6%) in the comparative group (Table 4). Two students in the comparative group did provide responses that were outside the scope of this research, so their responses were excluded from the data analysis.

In the table below are demographic data of IP participants who responded to the question "Are you in the honors college?" This table has frequencies of student responses along with the percentage of students who responded to one of the two choices.

Table 5

The Honors College Classification of Survey Respondents in the Comparative Group (n = 101) and Before, Two-weeks Post, and Three-months Post International Program (IP) (n = 24)

Honors classification	*f*	%	*f*	%
Before-IP			Comparative group	
Honors	14	58.3	15	14.8
Non-Honors	10	41.7	81	80.2
No response			5	5.0
Two-weeks post-IP				
Honors	14	58.3		
Non-Honors	10	41.7		
Three-months post-IP				
Honors	14	58.3		
Non-Honors	9	37.5		
No response	1	4.2		

The majority of survey respondents were in the Honors College (58.3%) before and after the IP experience (Table 5). Conversely, there was a majority of non-Honors (80.2%) students in the comparative group (Table 5).

In the table below are demographic data of IP participants and the comparative group who responded to the question "What college are you in?" This table has frequencies of student responses along with the percentage of students who responded to one of the six choices. Students who chose more than one college were moved into a separate category.

Table 6

The College Classification of Survey Respondents in the Comparative Group (n = 101) and Before, Two-weeks Post, and Three-months Post International Program (IP) (n = 24)

College classification	*f*	%	*f*	%
Before-IP			Comparative group	
Bumpers[1]	12	50.0	16	15.8
Walton[2]	0	0.0	54	53.5
Fulbright[3]	6	25.0	25	24.8
COEHP[4]	0	0.0	0	0.0
Fay Jones[5]	0	0.0	1	1.0
Engineering[6]	5	20.8	3	3.0
Double Major	1	4.2	2	2.0
Two-weeks post-IP				
Bumpers	12	50.0		
Walton	1	4.2		
Fulbright	5	20.8		
COEHP	0	0.0		
Fay Jones	0	0.0		
Engineering	6	25.0		
Double Major	0	0.0		
Three-months post-IP				
Bumpers	12	50.0		
Walton	1	4.2		
Fulbright	5	20.8		
COEHP	0	0.0		
Fay Jones	0	0.0		
Engineering	6	25.0		
Double Major	0	0.0		

Note. 1 = Dale Bumpers College of Agricultural, Food and Life Sciences; 2 = Sam M. Walton College of Business; 3 = J. William Fulbright College of Arts and Sciences; 4 = College of Education & Health Professions; 5 = Fay Jones School of Architecture and Design; 6 = College of Engineering.

Students were enrolled in the Bumpers College (50.0%), Fulbright College (25.0%), and Engineering College (20.8%) before the IP (Table 6). Two-weeks and three-months post-IP students were enrolled in with the largest percentage in Bumpers College (50.0%), Engineering College (25.0%), and Fulbright College (20.8%) (Table 6). In the comparative group all Colleges at the U of A were represented except the College of Education and Health Professionals (COEHP). The majority of the comparative group students were enrolled in the Walton College of Business (Walton College) (53.5%), followed by the Fulbright College (24.8%), and Bumpers College (15.8%) (Table 6).

In the table below are demographic data of IP participants and the comparative group who responded to the question "What is your current age?" This table has frequencies of student responses along with the percentage of students who responded to one of the four choices.

Table 7

The Current Age of Survey Respondents in the Comparative Group (n = 101) and Before, Two-week Posts, and Three-months Post International Program (IP) (n = 24)

Age	*f*	%	*f*	%
Before-IP			Comparative group	
≤ 18	1	4.2	4	4.0
19-20	12	50.0	73	72.0
21-22	7	29.2	18	18.0
≥ 23	4	16.7	5	5.0
Two-weeks post-IP				
≤ 18	0	0.0		
19-20	13	54.2		
21-22	6	25.0		
≥ 23	5	20.8		
Three-months post-IP				
≤ 18	0	0.0		
19-20	9	37.5		
21-22	9	37.5		
≥ 23	5	20.8		
No response	1	4.2		

All but one of the survey respondents were at least 18 years old before-IP and the largest percentage were 21 years or older (45.9%) before-IP and three-months post-IP (58.3%) (Table 7). In addition, students in the comparative group had a majority age between 19-20 years old (73.0%) followed by 21 years and older (23.0%) (Table 7). Students who were 18 years old or younger were the smallest percentage (4.0%) of the comparative group (Table 7).

In the table below are demographic data of IP participants who responded to the question "To the best of your knowledge what is your current GPA?" This table has frequencies of student responses along with the percentage of students who responded to one of the five choices.

Table 8

The Current Grade Point Average of Survey Respondents in the Comparative Group (n = 101) and Before, Two-weeks Post, and Three-months Post International Program (IP) (n = 24)

Grade point average	*f*	%	*f*	%
Before-IP			Comparative group	
≤ 2.5	0	0.0	1	1.0
2.5-2.8	1	4.2	8	8.1
2.9-3.2	0	0.0	23	23.2
3.3-3.6	4	16.7	40	40.4
3.7-4.0	19	79.2	27	27.3
Two-weeks post-IP				
≤ 2.5	0	0.0		
2.5-2.8	1	4.2		
2.9-3.2	1	4.2		
3.3-3.6	3	12.5		
3.7-4.0	19	79.2		
Three-months post-IP				
≤ 2.5	0	0.0		
2.5-2.8	0	0.0		
2.9-3.2	1	4.2		
3.3-3.6	4	16.7		
3.7-4.0	19	79.2		

The GPA of respondents was between 3.7-4.0 on a 4.0 scale (79.2%) before-IP, two-weeks post-IP, and three-months post-IP (Table 8). The largest percentage of students in the comparative group had a GPA between 3.3-3.6 on a 4.0 scale (40.4%), which was followed by a GPA between 3.7-4.0 on a 4.0 scale (27.3%) (Table 8).

Chi-Square Goodness of Fit Test

As mentioned above, the Chi-Square Goodness of Fit Test was run to determine whether the distributions of grade classification, gender, and college classification of the before-IP

respondents were of even proportions to the comparative group. This test was with the before-IP respondents and the comparative group without respondents who had previous IP experience.

Before-IP respondents and comparative group (no previous IP experience).

Of the 41 before-IP respondents for grade classification, 7 were freshman (17.1%), 13 were sophomores (31.7%), and 18 were juniors (43.9%). A Chi-Square Goodness of Fit Test determined whether the participants recruited to take the IP survey had the same grade classification as those in the comparative group. The minimum expected frequency was 10 (Table 9).

In the table below is a Chi-Square Goodness of Fit Test between before-IP participants and the comparative group. This Chi-Square Goodness of Fit Test evaluated the distribution of grade, gender, and college classifications of these two groups.

Table 9

Before-IP (n = 43) and Comparative Group (n = 86) Grade, Gender, and College Classifications for Students with No Previous International Program (IP) Experience

	Before-IP		Comparative group			
Classification	*n*	%	*n*	%	$X^2(1)$	*p*
Grade						
Freshman	7	16.3	22	25.6		
Sophomore	13	30.2	38	44.2		
Junior	18	41.9	22	25.6		
Senior	3	7.0	4	4.6		
Graduate	2	4.6	0	0.0		
					8.965	0.030*
Gender						
Male	14	32.6	33	38.4		
Female	29	67.4	52	60.5		
No response	0	0.0	1	1.1		
					0.540	0.462
College						
Bumpers[1]	18	41.9	13	15.1		
Walton[2]	3	7.0	47	54.7		
Fulbright[3]	10	23.3	22	25.6		
COEHP[4]	0	0.0	0	0.0		
Fay Jones[5]	1	2.3	0	0.0		
Engineering[6]	8	18.6	0	0.0		
Double major	1	2.3	0	0.0		
No response	2	4.6	4	4.6		
					51.609	0.000**

Note. *p < 0.05. **p <0 .001.
1 = Dale Bumpers College of Agricultural, Food and Life Sciences; 2 = Sam M. Walton College of Business; 3 = J. William Fulbright College of Arts and Sciences; 4 = College of Education & Health Professions; 5 = Fay Jones School of Architecture and Design; 6 = College of Engineering.

The Chi-Square Goodness of Fit Test indicated that the three grade classifications were not similarly distributed for the before-IP respondents to the comparative group ($\chi^2(2) = 8.965$, *p*

= 0.030) (Table 9). Senior and graduate grade classifications were removed from this analysis because they did not meet the minimum expected frequency of 5.

Of the 43 before-IP respondents for gender, 14 were male (34.1%) and 29 were female (70.1%). A Chi-Square Goodness of Fit Test was conducted to determine whether the participants recruited to the study had the same gender classification as those in the convenience sample. The minimum expected frequency was 16. The Chi-Square Goodness of Fit Test indicated that the two gender classifications were similarly distributed for the before-IP respondents to the comparative group ($\chi^2(2) = 0.540$, $p = 0.462$) (Table 9). Two gender responses were removed from the comparative group because they did not answer the question.

Of the 26 before-IP respondents, 18 were in Bumpers College (53.8%), three were in Walton College (11.5%), and five were in Fulbright College (19.2%). The minimum expected frequency was seven. The Chi-Square Goodness of Fit Test indicated that the three college classifications were not similarly distributed for the before-IP respondents to the comparative group ($\chi^2(2) = 54.609$, $p = 0.000$) (Table 9). Double majors, Bumpers College, COEHP, Fay Jones College of Architecture (Fay Jones College), and Engineering College students were removed because they did not meet the required expected frequency of five for this analysis.

One-Way MANOVA

Before-IP respondents and comparative group (no previous IP experience).

In the table below are the results from a one-way MANOVA test between the before-IP participants and the comparative group. This analysis evaluated their motivations for continuing college and determined if statistically significant differences occurred.

Table 10

Before-IP (n = 43) and the Comparative Groups (n = 86) Motivation for Continuing College Constructs for Students with No Previous International Program (IP) Experience

	Before-IP		Comparative group				
Motivation Constructs	*M*	*SD*	*M*	*SD*	*F*	*p*	η^2
Intrinsic motivation 'to know' (M1)	21.33	4.25	21.76	4.52	0.274	0.601	0.002
Intrinsic motivation 'toward accomplishment' (M2)	18.95	4.61	18.18	4.42	0.663	0.417	0.005
Intrinsic motivation 'to experience stimulation' (M3)	14.47	5.03	13.86	5.27	0.388	0.534	0.003
Extrinsic motivation 'identified' (M4)	24.53	3.71	23.74	3.66	1.36	0.245	0.011
Extrinsic motivation 'introjected' (M5)	21.47	4.66	19.64	5.94	3.10	0.081	0.024
Extrinsic motivation 'external regulation' (M6)	24.07	3.32	22.70	4.03	3.70	0.056	0.028
Amotivation (M7)	6.67	3.76	6.03	4.31	0.688	0.408	0.005

There was homogeneity of variance-covariances matrices, for the motivation and engagement constructs as assessed by Box's test of equality of covariance matrices ($p = 0.187$). Before-IP respondents had greater means than the comparative group for the all of the motivation constructs except intrinsic motivation – to know (Table 10). However, there were no significant differences between the before-IP respondents and the comparative group motivation constructs (Table 10). Additional statistics, sum of squares and mean of squares, can be found below (Appendix N).

In the table below are the results from a one-way MANOVA test between the before-IP participants and the comparative group. This analysis evaluated their levels of engagement in the classroom and determined if statistically significant differences occurred.

Table 11

Before-IP (n = 43) and the Comparative Groups (n = 86) Engagement in the Classroom Constructs for Students with No Previous International Program (IP) Experience

	Before-IP		Comparative group				
Engagement constructs	*M*	*SD*	*M*	*SD*	*F*	*p*	η^2
Skills engagement (E1)	34.51	5.85	34.10	6.51	0.121	0.729	0.001
Emotional engagement (E2)	17.45	3.61	17.51	4.26	0.043	0.836	0.000
Participation/ interaction engagement (E3)	19.42	3.93	20.11	4.33	0.790	0.376	0.006
Performance engagement (E4)	12.77	1.84	12.47	2.21	0.574	0.450	0.004

Note. * = $p < 0.05$

Furthermore, the before-IP respondents scored higher on their engagement constructs E1 and E4 than the comparative group, but there were no statistically significant differences for any of the engagement constructs (Table 11). Additional statistics, sum of squares and mean of squares, can be found below (Appendix O).

Mean Comparisons

Before-IP respondents and comparative group (no previous IP experience).

The before-IP respondent and the comparative group means for motivation were compared on a Likert-scale from “does not correspond at all” (1) to “corresponds exactly” (7).

In the table below are mean comparisons of before-IP participants and the comparative group for their motivations for continuing college. The means and standard deviations are represented for each individual statement.

Table 12

Mean Motivations for Continuing College Statements for Before-IP (n = 43) and the Comparative Group (n = 86) of Those with No Previous International Program (IP) Experience

		Before-IP		Comparative group	
Motivation statements		*M*	*SD*	*M*	*SD*
1)	Because with only a high-school degree I would not find a high-paying job later on.	4.79	1.89	5.20	1.70
2)	Because I experience pleasure and satisfaction while learning new things.	5.75	1.11	5.39	1.21
3)	Because I think that a college education will help me better prepare for the career I have chosen.	6.50	0.78	6.26	1.13
4)	Because of the intense feelings I experience when I am communicating my own ideas to others.	4.12	1.54	4.30	1.36
5)	Because honestly, I don't know; I really feel that I am wasting my time in school.	1.42	0.93	2.06	1.57
6)	Because of the pleasure I experience while surpassing myself in my studies.	4.54	1.74	4.47	1.48
7)	To prove to myself that I am capable of completing my college degree.	5.04	1.80	5.54	1.44
8)	In order to obtain a more prestigious job later on.	5.62	1.84	6.23	1.25
9)	For the pleasure I experience when I discover new things never seen before.	5.71	1.49	5.03	1.45
10)	Because eventually it will enable me to enter the job market in a field that I like.	6.29	1.34	6.21	1.22
11)	For the pleasure that I experience when I read interesting authors.	3.79	1.95	3.53	1.67
12)	Because I once had good reasons for going to college; however, now I wonder whether I should continue.	1.42	0.72	1.85	1.42
13)	For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments.	4.62	1.61	4.66	1.46
14)	Because of the fact that when I succeed in college I feel important.	5.04	1.63	5.34	1.47
15)	Because I want to have "the good life" later on.	5.71	1.49	5.92	1.20
16)	For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.	6.04	1.23	5.41	1.39

Table 12 continued

Motivation statements		Before-IP		Comparative group	
		M	*SD*	*M*	*SD*
17)	Because this will help me make a better choice regarding my career orientation.	5.78	1.08	5.71	1.32
18)	For the pleasure that I experience when I feel completely absorbed by what certain authors have written.	3.37	1.88	3.13	1.59
19)	Well, I can't see why I go to college and frankly, I couldn't care less.	1.12	0.45	1.61	1.25
20)	For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.	5.04	1.76	4.74	1.46
21)	To show myself that I am an intelligent person.	4.62	1.74	5.17	1.48
22)	In order to have a better salary later on.	5.46	1.74	6.02	1.14
23)	Because my studies allow me to continue to learn about many things that interest me.	6.17	0.92	5.42	1.27
24)	Because I believe a few additional years of education will improve my competence as a worker.	5.79	1.64	5.74	1.25
25)	For the "high" feeling that I experience while reading about various interesting subjects.	3.67	1.78	3.46	1.75
26)	Because I don't know; I can't understand what I am doing in school.	1.20	0.66	1.65	1.22
27)	Because college allows me to experience a personal satisfaction in my quest for excellence in my studies.	5.17	1.40	4.79	1.51
28)	Because I want to show myself, I can succeed in my studies.	4.62	1.71	5.42	1.35

The greatest motivation to continue college for before-IP respondents and the comparative group was "because I think that a college education will help me better prepare for the career I have chosen" (*M* = 6.50, *SD* = 0.78) and (*M* = 6.26, *SD* = 1.13), respectively. The motivation statement that before-IP respondents and the comparative group least corresponded with was "well, I can't see why I go to college and frankly, I couldn't care less" (*M* = 1.12, *SD* = 0.45) and (*M* = 1.61, *SD* = 1.25), respectively (Table 12).

In the table below are mean comparisons of before-IP participants and the comparative group for their levels of engagement in the classroom. The means and standard deviations are presented for each individual statement.

Table 13

Means of Engagement in the Classroom Statements for Before-IP (n = 43) and the Comparative Group (n = 86) of Students with No Previous International Program (IP) Experience

		Before-IP		Comparative group	
Engagement statements		*M*	*SD*	*M*	*SD*
1)	Raising my hand in class.	3.04	1.16	2.80	0.99
2)	Participating actively in small group discussions.	3.79	1.25	3.74	0.95
3)	Asking questions when I don't understand the instructor.	3.46	1.35	3.17	1.04
4)	Doing all the homework problems.	4.54	0.72	4.22	0.93
5)	Coming to class every day.	4.42	0.77	4.02	1.01
6)	Going to the professor's office hours to review assignments or tests, or to ask questions.	3.42	1.25	2.85	1.17
7)	Thinking about the course between class meetings.	4.42	0.83	3.47	1.20
8)	Finding ways to make the course interesting to me.	3.54	1.10	3.37	1.10
9)	Taking good notes in class.	4.25	1.03	3.75	1.13
10)	Looking over class notes between classes to make sure I understand the material.	3.17	1.31	2.80	1.28
11)	Really desiring to learn the material.	3.92	0.93	3.32	0.99
12)	Being confident that I can learn and do well in the class.	4.29	0.91	3.83	0.84
13)	Putting forth effort.	4.54	0.67	4.18	0.80
14)	Being organized.	4.08	1.02	4.03	1.09
15)	Getting a good grade.	4.62	0.65	4.37	0.76
16)	Doing well on the tests.	4.25	0.85	4.14	0.90
17)	Staying up on reading assignments.	3.42	1.35	3.39	1.15
18)	Having fun in class.	3.54	1.06	3.61	0.95
19)	Helping fellow students.	3.71	1.08	3.72	0.92
20)	Making sure to study on a regular basis.	3.50	0.98	3.40	0.11
21)	Finding ways to make the course material relevant to my life.	3.87	0.90	3.32	1.10
22)	Applying course material to my life.	4.00	0.93	3.46	1.15
23)	Listening carefully in class.	4.25	0.74	3.83	0.92

The before-IP respondents and the comparative group means for engagement were compared using a Likert-scale from "not characteristic of me" (1) to "very characteristic of me"

(5). The before-IP students and the comparative group stated “getting a good grade” was the most characteristic of them (M = 4.62, SD = 0.65) and (M = 4.37, SD = 0.76), respectively. The before-IP respondents and comparative group agreed that “raising my hand in class” was the least characteristic of them (M = 3.04, SD = 1.16) and (M = 2.80, SD = 0.99), respectively (Table 13).

Before-IP, two-weeks post-IP, and three-months post-IP respondents.

The before-IP, two-weeks post-IP, and three-months post-IP respondents for motivation statements were compared using a Likert-scale from “does not correspond at all” (1) to “corresponds exactly” (7). In the table below are mean comparisons of before-IP, two-weeks post-IP, and three-months post-IP participants for their motivations for continuing college. The means and standard deviations are presented for each individual statement over time.

Table 14

Mean Motivation for Continuing College Statements for Before the International Program (IP), Two-weeks Post-IP, and Three-months Post-IP (n = 24)

Motivation statements		Before-IP		Two-weeks post-IP		Three-months post-IP	
		M	*SD*	*M*	*SD*	*M*	*SD*
1)	Because with only a high-school degree I would not find a high-paying job later on.	4.79	1.89	4.71	2.09	5.04	1.88
2)	Because I experience pleasure and satisfaction while learning new things.	5.75	1.11	5.54	1.47	5.43	1.50
3)	Because I think that a college education will help me better prepare for the career I have chosen.	6.50	0.78	6.37	0.77	6.25	0.94
4)	Because of the intense feelings I experience when I am communicating my own ideas to others.	4.12	1.54	4.42	1.79	4.21	1.50
5)	Because honestly, I don't know; I really feel that I am wasting my time in school.	1.42	0.93	1.46	0.88	1.54	0.72
6)	Because of the pleasure I experience while surpassing myself in my studies.	4.54	1.74	4.75	1.67	4.67	1.81

Table 14 continued

7)	To prove to myself that I am capable of completing my college degree.	5.04	1.80	4.71	1.90	4.67	1.71
8)	In order to obtain a more prestigious job later on.	5.62	1.84	5.75	1.48	5.54	1.71
9)	For the pleasure I experience when I discover new things never seen before.	5.71	1.49	5.46	1.64	4.83	1.68
10)	Because eventually it will enable me to enter the job market in a field that I like.	6.29	1.34	6.42	0.77	6.29	1.00
11)	For the pleasure that I experience when I read interesting authors.	3.79	1.95	3.76	2.03	3.54	1.69
12)	Because I once had good reasons for going to college; however, now I wonder whether I should continue.	1.42	0.72	1.25	0.53	1.29	0.69
13)	For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments.	4.62	1.61	4.58	1.69	4.87	1.70
14)	Because of the fact that when I succeed in college I feel important.	5.04	1.63	4.33	1.86	4.37	1.99
15)	Because I want to have "the good life" later on.	5.71	1.49	5.25	1.59	4.96	1.94

Table 14 continued

Motivation statements		Before-IP		Two-weeks post-IP		Three-months post-IP	
		M	*SD*	*M*	*SD*	*M*	*SD*
16)	For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.	6.04	1.23	5.58	1.69	5.08	1.47
17)	Because this will help me make a better choice regarding my career orientation.	5.78	1.08	5.75	1.07	5.43	1.47
18)	For the pleasure that I experience when I feel completely absorbed by what certain authors have written.	3.37	1.88	3.29	1.99	3.12	1.78
19)	Well, I can't see why I go to college and frankly, I couldn't care less.	1.12	0.45	1.12	0.45	1.08	0.28
20)	For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.	5.04	1.76	4.67	1.78	4.67	1.63
21)	To show myself that I am an intelligent person.	4.62	1.74	4.37	2.10	4.46	1.95
22)	In order to have a better salary later on.	5.46	1.74	5.46	1.35	5.12	2.11
23)	Because my studies allow me to continue to learn about many things that interest me.	6.17	0.92	5.79	1.61	5.42	1.72
24)	Because I believe a few additional years of education will improve my competence as a worker.	5.79	1.64	6.04	1.37	5.75	1.33
25)	For the "high" feeling that I experience while reading about various interesting subjects.	3.67	1.78	3.79	2.17	3.54	2.04
26)	Because I don't know; I can't understand what I am doing in school.	1.20	0.66	1.67	0.56	1.17	0.38
27)	Because college allows me to experience a personal satisfaction in my quest for excellence in my studies.	5.17	1.40	4.54	1.98	4.67	1.73
28)	Because I want to show myself, I can succeed in my studies.	4.62	1.71	4.33	0.21	4.62	1.76

Before-IP and two-weeks post-IP respondents stated "because I think that a college education will help me better prepare for the career I have chosen" as the motivation that corresponded the most to them (M = 6.50, SD = 0.78) and (M = 6.37, SD = 0.77), respectively. However, the three-months post-IP respondents stated "because eventually it will enable me to

enter the job market in a field that I like" was the most corresponding motivation (*M* = 6.29, *SD* = 1.00). The motivation statement that before-IP, two-weeks post-IP, and three-months post-IP respondents least corresponded with was "well, I can't see why I go to college and frankly, I couldn't care less" (*M* = 4.12, *SD* = 0.45), (*M* = 1.12, *SD* = 0.45), and (*M* = 1.08, *SD* = 0.28) respectively (Table 14).

The before-IP, two-weeks post-IP, and three-months post-IP respondent means for engagement were compared using a Likert-scale from "not characteristic of me" (1) to "very characteristic of me" (5). In the table below are mean comparisons of before-IP, two-weeks post-IP, and three-months post-IP participants for their levels of engagement in the classroom. The means and standard deviations are presented for each individual statement over time.

Table 15

Mean Engagement in the Classroom Statements for Before the International Program (IP), Two-weeks Post-IP, and Three-months Post-IP (n = 24)

		Before-IP		Two-weeks post-IP		Three-months post-IP	
Engagement statements		*M*	*SD*	*M*	*SD*	*M*	*SD*
1)	Raising my hand in class	3.04	1.16	3.08	1.32	3.29	1.20
2)	Participating actively in small group discussions	3.79	1.25	3.96	1.04	3.92	0.83
3)	Asking questions when I don't understand the instructor	3.46	1.35	3.25	1.29	3.37	1.34
4)	Doing all the homework problems	4.54	0.72	4.33	0.87	4.42	0.77
5)	Coming to class every day	4.42	0.77	4.54	0.59	4.58	0.65
6)	Going to the professor's office hours to review assignments or tests, or to ask questions	3.42	1.25	3.58	1.21	3.37	1.34
7)	Thinking about the course between class meetings	4.42	0.83	4.04	0.75	3.87	0.85
8)	Finding ways to make the course interesting to me	3.54	1.10	3.71	0.91	3.67	0.92
9)	Taking good notes in class	4.25	1.03	4.33	0.96	4.21	0.98
10)	Looking over class notes between classes to make sure I understand the material	3.17	1.31	3.12	1.17	2.96	1.33
11)	Really desiring to learn the material	3.92	0.93	3.92	0.97	3.83	0.96
12)	Being confident that I can learn and do well in the class	4.29	0.91	4.25	0.90	4.00	0.88
13)	Putting forth effort	4.54	0.67	4.58	0.71	4.25	0.99
14)	Being organized	4.08	1.02	4.29	0.95	4.00	1.10
15)	Getting a good grade	4.62	0.65	4.58	0.72	4.54	4.54
16)	Doing well on the tests	4.25	0.85	4.33	0.96	4.17	4.17
17)	Staying up on reading assignments	3.42	1.35	3.37	1.38	3.17	3.17
18)	Having fun in class.	3.54	1.06	3.42	1.14	3.29	3.29
19)	Helping fellow students.	3.71	1.08	3.83	0.82	3.75	3.75
20)	Making sure to study on a regular basis.	3.50	0.98	3.78	1.00	3.42	3.42
21)	Finding ways to make the course material relevant to my life.	3.87	0.90	3.67	1.13	3.58	3.58
22)	Applying course material to my life.	4.00	0.93	3.83	1.05	3.54	1.10
23)	Listening carefully in class.	4.25	0.74	4.29	0.81	3.96	0.69

The before-IP and two-weeks post-IP students stated “getting a good grade” was the most characteristic of them (M = 4.62, SD = 0.65) and (M = 4.58, SD = 0.72), respectively. However, three-months post-IP students stated “coming to class every day” was most characteristic of them (M = 4.58, SD = 0.65). The before-IP and two-weeks post-IP students agreed that “raising my hand in class” was the least characteristic of them (M = 3.04, SD = 1.16) and (M = 3.80, SD = 1.32) and the three-months post-IP students stated “looking over class notes between classes to make sure I understand the material” was the least characteristic of them (M = 2.96, SD = 1.33) (Table 15).

One-Way Repeated Measures ANOVA

Motivation constructs.

There were some univariate outliers observed in these data, as assessed by inspection of a boxplot for values greater than one and a half box-lengths from the edge of the box. However, the outliers were not entry errors or measurement errors and were kept in the analysis. Motivation construct scores were not normally distributed for before-IP constructs (M1, M4, M6, and M7), two-weeks post-IP constructs (M1 and M7), and three-months post-IP constructs (M7) as assessed by Shapiro-Wilk's test ($p < 0.05$). The one-way ANOVA is considered robust to deviations from normality, so the analysis was performed with these non-normalities.

A one-way repeated measures ANOVA was conducted to determine whether there were statistically significant differences in motivation constructs over the course of this study. There were no significant outliers for the M1 construct and the data was not normally distributed, as assessed by boxplot and Shapiro-Wilk test ($p < .05$). Mauchly's test of sphericity indicated that the assumption of sphericity was violated for the M1 construct, $\chi^2(2) = 0.767$, $p = 0.019$.

Therefore, a Greenhouse-Geisser correction was applied ($\varepsilon = 0.998$) and was used to correct the one-way repeated measures ANOVA.

In the table below are the results from a one-way repeated measures ANOVA test of the before-IP, two-weeks post-IP, and three-months post-IP participants. This analysis evaluated their motivations for continuing college and determined if statistically significant differences occurred between these different surveys.

Table 16

The Effects of International Programs (IP) on Student Motivation for Continuing College Before-IP, Two-weeks Post-IP, and Three-months Post-IP (n = 24)

	Before-IP		Two-weeks post-IP		Three-months post-IP				
Motivation constructs	*M*	*SD*	*M*	*SD*	*M*	*SD*	F	*p*	η^2
Intrinsic motivation 'to know' (M1)	23.67	4.33	22.38	6.01	20.54	5.76	549.214	0.018*	0.180
Intrinsic motivation 'toward accomplishment' (M2)	19.38	5.17	18.54	6.42	18.88	6.31	0.299	0.731	0.013
Intrinsic motivation 'to experience stimulation' (M3)	14.96	5.56	15.17	7.19	14.42	6.31	0.456	0.630	0.019
Extrinsic motivation 'identified' (M4)	24.20	4.32	24.64	3.01	22.56	5.81	2.153	0.144	0.082
Extrinsic motivation 'introjected' (M5)	19.33	5.92	17.75	6.86	18.12	6.47	1.661	0.205	0.067
Extrinsic motivation 'external regulation' (M6)	21.59	5.96	21.17	5.48	20.67	6.12	0.730	0.475	0.031
Amotivation (M7)	5.17	2.30	5.00	2.00	5.08	1.38	0.146	0.844	0.006

Note. * = p <0.05

The M1 construct was statistically significantly different at the different time points during the study, F(2, 46) = 5.063, $p < .018$, partial $\eta^2 = .134$. There was a decrease in M1 scores

from before-IP (*M* = 23.67, *SD* = 0.88) to three-months post-IP (*M* = 20.54, *SD* = 1.17), a statistically significant mean decrease of 3.12, 95% CI [0.26, 6.00], p < 0.03, partial $\eta^2 = 0.180$. Also, there was a decrease in M1 scores two-weeks post-IP (M = 22.37, SD = 1.23) to three-months post-IP (M = 20.54, SD = 1.17), a statistically significant mean decrease of 1.83, 95% CI [0.13, 3.54], p < 0.03, partial η2 = 0.180 (Table 16). Additional statistics, sum of squares and mean of squares, can be found below (Appendix P).

Engagement constructs.

A one-way repeated measures ANOVA was conducted to determine whether there were statistically significant differences for the engagement constructs before-IP, two-weeks post-IP, and three-months post-IP. There were no significant outliers for the E1 construct and the data was not normally distributed, as assessed by boxplot and Shapiro-Wilk test (p < .05). Mauchly's test of sphericity indicated that the assumption of sphericity was not violated for the E1 construct, $\chi^2(2) = 0.043$, $p = 0.979$. Additional statistics, sum of squares and mean of squares, can be found below (Appendix Q).

In the table below are the results from a one-way repeated measures ANOVA test of the before-IP, two-weeks post-IP, and three-months post-IP participants. This analysis evaluated the levels of engagement in the classroom and determined if statistically significant differences occurred between these different surveys.

Table 17

The Effects of International Programs (IP) on Student Engagement in the Classroom College Pre-IP, Two-weeks Post-IP, and Three-months Post-IP (n = 24)

	Before-IP		Two-weeks post-IP		Three-months post-IP				
Engagement constructs	*M*	*SD*	*M*	*SD*	*M*	*SD*	F	*p*	η^2
Skills engagement (E1)	36.17	5.67	36.54	6.09	34.96	6.75	3.557	0.037*	0.134
Emotional engagement (E2)	19.75	3.52	19.17	3.61	18.50	3.72	4.473	0.023*	0.163
Participation/ interaction engagement (E3)	20.96	5.15	21.13	5.24	21.00	4.83	0.057	0.943	0.002
Performance engagement (E4)	13.17	2.00	13.17	2.24	12.71	2.40	1.658	0.202	0.067

Note. * = p <0.05

The E1 construct was statistically significantly different at the different time points during the study, F(2, 46) = 3.557, $p < 0.037$, partial $\eta^2 = 0.134$. There was a decrease in E1 scores two-weeks post-IP (M = 36.54, SD = 1.16) to three-months post-IP (M = 34.96, SD = 1.38), a statistically significant mean decrease of 1.58, 95% CI [0.01, 3.15], $p < 0.047$, partial $\eta^2 = 0.241$ (Table 17).

There were no outliers for the E2 construct and the data were normally distributed, as assessed by boxplot and Shapiro-Wilk test ($p > 0.05$). Mauchly's test of sphericity indicated that the assumption of sphericity was not violated for the E2 construct, $\chi^2(2) = 0.843$, $p = 0.104$. The E2 construct was statistically significantly different at the different time points during the study, F(2, 46) = 4.473, $p < 0.017$, partial $\eta^2 = 0.163$. There was a decrease in E2 scores before-IP (M =

19.75, *SD* = 0.72) to three-months post-IP (*M* = 18.50, *SD* = 0.76), a statistically significant mean decrease of 0.67, 95% CI [0.48, 1.82], $p < 0.024$, partial $\eta^2 = 0.247$ (Table 17).

Chapter Five: Conclusions and Implications

Conclusions

The main goal of this study was to expand the understanding of impacts that come from collegiate IP opportunities. Due to the gap in the literature it was determined that there was a need to study IP influences on student motivation for continuing college and student engagement in the classroom. This study described student motivation for continuing college and student engagement while attending college before-IP, two-weeks post-IP, and three-months post-IP, and with a comparative group. This study determined the similarities and differences in demographics, student motivation, and student engagement among these groups.

Objective One: Demographics of Survey Respondents

The largest percentage of IP students who completed the before-IP survey had traveled to 1-2 countries (41.7%) and had never studied abroad (58.3%). Similarly, the comparative group had the greatest percentage of students who had also been to 1-2 countries (32.7%) and had never studied abroad (86.1%). These data represent the demographic similarities between the two groups. Although the majority of both groups had not studied abroad, it should be noted that the students enrolled in an IP had previously studied abroad nearly 30% more than those in the comparative group.

The majority of IP students were enrolled in the Honors College (58.3%), juniors (37.5%), in Bumpers College (50.0%), and had a GPA of 3.7-4.0 on a 4.0 scale (79.2%). Conversely, the comparative group were mostly non-Honors (85%), sophomores (44%), enrolled in the Walton College (53.5%), and had a GPA between 3.3-3.6 on a 4.0 scale (40.4%). Although, the students enrolled in an IP and the comparative group had some similarities, these groups did not share the same greatest percentages of Honors College enrollment, grade

classification, major college enrollment, and GPA. The IP students had a higher percentage enrollment in the Honors College and higher GPAs than the comparative group. This may represent that IP students were more academically motivated than the comparative group. However, there are several factors that could also affect IP participants having a higher GPA than the comparative group. For instance, North Caroline State University and the U of A have eligibility criteria in place, such as a minimum GPA of 2.5 on a 4.0 scale, to ensure that all students have been academically successful on campus before participating in an IP (North Carolina State University, 2019; Hogs Abroad Portal, 2019). Furthermore, 42% of the IP participants who completed the before-IP survey had previously studied abroad, while 14% of the comparative group had. Redden (2010) reported that students who have participated in an IP have improved academic performance upon returning to their home campus in addition to higher graduations rates. The higher rates of IP participation in the before-IP group in comparison to the comparative group may have influenced the higher GPA levels.

A Chi-Square Goodness of Fit Test was performed, which addressed the first research objective and determine if the distributions of grade, gender, and college classifications were similar between students with no previous IP experience for before-IP respondents and the comparative group. It was determined that the two gender classifications (males and females) were evenly distributed among the two groups. However, grade and college classifications were not evenly distributed. This indicated that the IP participant findings are not generalizable to the larger population of U of A students based on the demographic characteristics (Table 9).

Objective Two: Motivation and Engagement for the Before-IP and Comparative Group Respondents

The MANOVA analysis addressed the second research objective. There were no significant differences for the motivation or engagement constructs between the before-IP respondents and comparative students without those with previous IP experience. This indicated that although there were significant differences for two of the variables tested with the Chi-Square Goodness of Fit Test (grade and college classifications), students were not significantly different from the comparative group in regard to student motivation and engagement constructs. A follow-up study may be useful to determine if statistically significant differences occurred between student's post-IP and the comparative group. If there are significant differences, this could mean that an IP experience has impacts on student motivation and student engagement in comparison to students without that experience.

The purpose of this mean analysis was also to complete the second research objective by comparing the average mean scores for the individual motivation and engagement statements between the before-IP respondents and comparative group. A Likert-scale from "does not correspond at all" (1) to "corresponds exactly" (7) was used for the motivation construct statements. Both groups indicated that the greatest motivation to continue college was "because I think that a college education will help me better prepare for the career I have chosen". These findings aligned with the humanist perspective that focused on the need people have to grow and achieve a sense of fulfillment (Alkaabi, Alkaabi, & Vyver, 2017). Maslow's hierarchy of needs is the dominant theory with this perspective and the hierarchy has been shown to ascend from lower-level needs to higher-level needs along the continuum: physiological, safety, love, and self-esteem (Alkaabi, Alkaabi, & Vyver, 2017) (Figure 4). The majority of students who

indicated the greatest motivation statements related to job obtainment supported previous findings that indicated humans are motivated by basic needs that must be satisfied before they can progress higher towards self-actualization (Maslow, 1943; Neher 1991; Alkaabi, Alkaabi, & Vyver, 2017).

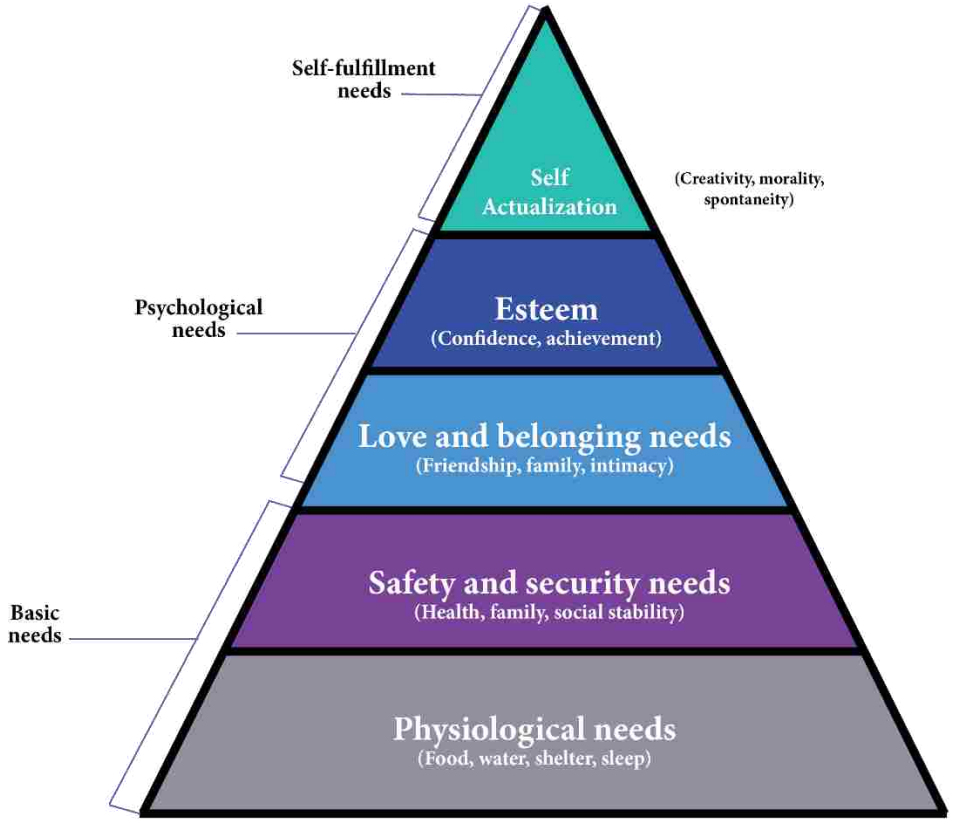

Figure 4. Maslow's hierarchy of needs that indicated basic needs are foundational and must in some way be met before the next level becomes relevant. Adapted from "Alternative Pathways to Understanding and Designing for Happiness in the Home," by E. Corrigan-Doyle, C. Escobar-Tello and K. P. Y. Lo, 2016, *Iterations, 4.*

Furthermore, both groups indicated that they least corresponded with the statement "well, I can't see why I go to college and frankly, I couldn't care less" which was in the amotivation construct. This aligns with previous research that found relevance of the college courses to satisfy personal needs, personal goals, and/or career goals was associated with motivation to study (Frymier & Shulman, 1995).

Both the before-IP respondents and the comparative group respondents corresponded the least with the amotivation statement and this supported the SDT proposed by Ryan and Deci (2000b). The SDT stated three needs were essential in developing one's self: 1) competency, 2) relatedness, and 3) autonomy. These needs have been found to apply to an individual's level of academic motivation (Deci & Ryan, 2004, p. 6). The SDT was described as a continuum that categorized motivation into distinct types with amotivation on one extreme end, which represented a complete lack of motivation (Chue & Nie, 2016) (Figure 5). Students surveyed for this research corresponded the most with an extrinsic motivation statement, which indicated there was still potential for them to move further along the continuum towards intrinsic motivations, which is considered the pinnacle of the SDT (Chue & Nie, 2016). However, respondents corresponded the least with an amotivation statement, which indicated that the majority of students agreed they were not passive towards their motivations to attend the U of A and saw value, whether it was extrinsically or intrinsically motivated. The same statement selections between the IP students and the comparative group indicated that these students had shared values in regard to motivations to continue college.

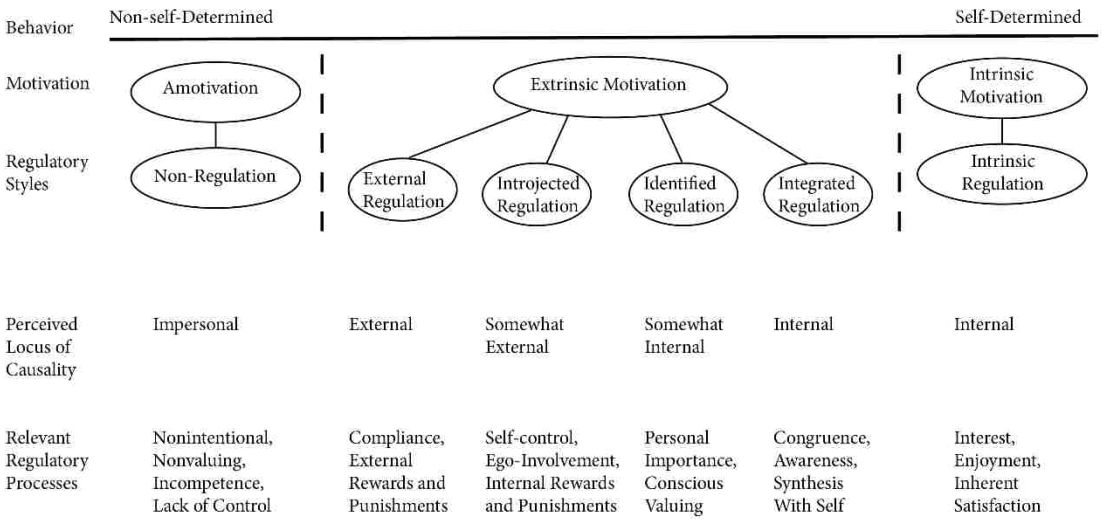

Figure 5. Self-Determination Theory continuum showing types of motivation with their regulatory styles, loci of causality, and corresponding process. Adapted from "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-being," by R. M. Ryan and E. L. Deci, 2000, *American Psychologist*, *55*, p. 72.

The engagement statements had a Likert-scale from "not characteristic of me" (1) to "very characteristic of me" (5). Before-IP students and the comparative group agreed that "getting a good grade" was the engagement statement that was most characteristic of them. Also, these groups stated that "raising my hand in class" was the least characteristic of them. Although the before-IP and comparative group's grade and college classifications were not evenly distributed, it should be noted that the highest and lowest motivation and engagement statement mean scores were similar. The similar mean scores may indicate that IP participants are not different from the comparative group in regard to their perceptions of the motivation to continue college and engagement in the classroom prior to an IP.

Objective Three: Motivation and Engagement for Before and Post-IP Respondents

This mean analysis addressed the third research objective by comparing motivation and engagement means before, two-weeks post-IP, and three-months post-IP. Before-IP and two-weeks post-IP respondents stated "because I think that a college education will help me better

prepare for the career I have chosen" as the motivation that corresponded the most to them. However, three-months post-IP students stated "because eventually it will enable me to enter the job market in a field that I like" as the most corresponding motivation. According to the statement means, there was a shift in the statement students corresponded the most with from before-IP and two-weeks post-IP to three-months post-IP. However, both of the highest ranked motivation statements related to job obtainment and were classified in the "extrinsic motivation – identified" (M4) category. These findings found that an extrinsic motivation statement related to job obtainment and was the greatest motivation for students to continue college. This confirms that respondents were consistently motivated before and after their IP to try and meet the basic needs outlined in Maslow's hierarchy of needs model (Figure 4). Furthermore, students still have room to move along the SDT continuum towards becoming intrinsically motivated as opposed to extrinsically motivated.

The motivation statement that before-IP, two-weeks post-IP, and three-months post-IP respondents least corresponded with was "well, I can't see why I go to college and frankly, I couldn't care less". Students identified the least with this statement and had a strong value for attending college before as well as after their IP. Similar to the mean comparisons between the before-IP respondents and the comparative group, students corresponded the least with an amotivation statement before and after their IP. All students in this study corresponded with a mean score of at the least two or less for the same amotivation statement using a Likert-scale from "does not correspond at all" (1) to "corresponds exactly" (7). This aligned with previous work by and MacKay (2007) that stated the millennial generation views college as a commodity but has understood the practical value in obtaining a degree. However, the Association of American Colleges and Universities (2002) stated students need to become architects of their

own learning, actively set goals, explore, reflect, and integrate acquired knowledge and experiences into their world views.

Before-IP and two-weeks post-IP students stated "getting a good grade" was the most characteristic engagement statement for them. Student motivation has been linked to student engagement and previous research has connected extrinsic motivation with rewards such as getting good grades (Vallerand et al., 1992). However, three-months post-IP students stated "coming to class every day" was most characteristic of them. This indicated there was a shift from the performance engagement construct (getting a good grade) before and two-weeks post-IP to the skills engagement construct (coming to class every day). This may indicate that after students had more than two-weeks to process their IP the majority concluded that they valued engagement through skills more than their engagement through performance. Dixson (2010) studied student engagement in online courses using a modified version of the SCEQ instrument that was also used in this study. Higher engagement scores were reported across many types of courses when students readily identified multiple ways of interacting with other students as well as communicating with instructors (Dixson, 2010). Although it was not significantly different, the change in three-months post-IP respondents who stated "coming to class every day" was most characteristic of them may indicate students had a higher level of skills engagement after their IP and students were seeking more social interactions than before their IP.

The before-IP and two-weeks post-IP students agreed that "raising my hand in class" was the least characteristic of them and three-months post-IP students stated "looking over class notes between classes to make sure I understand the material" was the least characteristic of them. This difference between pre-IP and two-weeks post-IP to three-months post-IP indicated a change from the participation/interaction engagement construct statement being the least

corresponding to the skills engagement statement (looking over class notes) being the least corresponding. This indicated that post-IP students valued participation/ interaction engagement more than before their IP. Also, the fact that the skills engagement construct was the highest and lowest corresponding statements for three-months post-IP may indicate a need to conduct a follow-up study to decipher which skills engagement are least important and most important for students in regard to their IP experience. The inconsistency in the most and least corresponding statement mean scores aligned with Dixson's (2010) overall research conclusions. Dixon (2010) stated the path to student engagement, based on data, was not about the type of activity or assignment but about the multiple ways teachers and students worked to create meaningful communication between one another.

Last, this one-way repeated measures ANOVA analysis was performed to address the third objective of this study to determine differences for the motivation and engagement constructs between the before-IP, two-weeks post-IP, and three-months post-IP. The one-way repeated measures ANOVA was an omnibus analysis. Therefore, post-hoc tests were run to determine significant differences among time intervals for the constructs (before, two-weeks, and three-months post-IP).

The M1 construct, intrinsic motivation – to know, was significantly different between the before-IP survey and three-months post-IP. The M1 scores decreased over time and after the IP experience. The intrinsic motivation – to know has been defined as performing an action for the pleasure and satisfaction that one experiences while learning, exploring, and attempting to learn something new (Vallerand et al., 1992). This finding may indicate that educators should provide students with opportunities to complete activities related to the intrinsic motivation constructs such as exploration and curiosity (Vallerand et al., 1992). Also, part of understanding learning is

recognizing how learners' beliefs, values, and experiences influence how perspectives and meanings are constructed (Perry et al., 2012). The IP destination, course material, and or travel in general can all have an influence on the potential shift in a student's worldview (Perry et al., 2012). Previous research has developed frameworks that attempt to understand and explain changes in students' worldviews. However, more research is needed to determine additional changes that occur in students' worldviews, how they occur, and what program designs and host country environments promote those changes (Golay, 2006).

The skills engagement and emotional engagement constructs were significantly different. The skills engagement scores decreased between two-weeks and three-months post-IP. The emotional engagement scores decreased between the two-weeks post-IP and three-months post-IP surveys. Skills engagement was defined as general learning strategies that could be used to gain intrinsic and extrinsic rewards and has been related to the level of academic challenge (Handelsman et al., 2005). The decrease in skills engagement after the IP experience may indicate that student's need more opportunities for intrinsic and extrinsic rewards associated with their class or that the academic learning environment is not challenging enough after an IP.

Furthermore, the emotional engagement construct was defined as emotional involvement with the classroom materials (Handelsman et al., 2005). This reaffirms Kahu's (2013) statement that there was a need for more research in higher education in regard to the role of emotion in student engagement. Although, the importance of relationships and the sense of belonging have been recognized, more attention needs to be placed on students' more immediate emotional responses to their learning, especially after returning from an IP. The decrease in the emotional engagement scores after the IP experience highlighted the need to have required assignments that relate course concepts to their lives (Handelsman et al., 2005).

Implications for Practitioners

The first hypothesis stated that there will be a statistically significant difference in student motivation for continuing college and this hypothesis was accepted. These findings have led to implications for practitioners that aim to prevent decreased intrinsic motivation to continue college in the future. Saeed and Zyngier (2012) found that students who showed intrinsic motivation on their survey responses demonstrated authentic engagement in their focus group responses, liked working with their peers, and participated in group work because it was beneficial for their learning. Furthermore, teachers have been described as often using different incentives with students to achieve high academic behavior (Pintrich & Schunk, 2002). However, Saeed and Zyngier (2012) found that students did not want any reward for their work but they wanted to focus on their performance and getting their work done as authentically, engaged students do. However, some students did indicate they wanted some tangible reward for doing their work, but previous research has confirmed that curriculum design that intrinsically motivated students led to the highest level of student academic and social outcomes (Saeed & Zyngier, 2012).

In addition, the Cognitive Evaluation Theory (CET) proposed that effects on intrinsic motivations from external events such as offering rewards, evaluations, and deadlines directly influenced a person's perception of competence and self-determination (Deci, Koestner, & Ryan, 2001). The CET predicted and confirmed that tangible rewards such as prizes, trophies, and symbolic rewards would decrease intrinsic motivation because historically it has been used to persuade people to do things they would not otherwise do (Deci, Koestner, & Ryan, 2001). It was concluded that verbal rewards were the only reward system tested that did not decrease intrinsic motivation (Deci, Koestner, & Ryan, 2001). Some researchers believe the CET should

be abandoned and teachers should not resist using rewards. However, Deci, Koestner, and Ryan (2001) explained the CET provided a comprehensive overview of reward effects and encouraged teachers to think carefully about when and how rewards should be used in the classroom.

The Ministry of Education in Guyana (2019) provided five suggestions for promoting intrinsic motivation:

1) Learn about each student's personal interests and motivating factors to the greatest extent possible.

2) Set goals for the students in the classroom and outline them clearly, so that students know exactly what is expected of them. Also, make it clear to students that success is not guaranteed, but is instead likely if they are willing to put forth a quality effort.

3) Introduce a topic and give students enough information, in an engaging manner, to help them realize that the material may be personally rewarding and interesting to further explore.

4) Encourage a learning environment that fosters independent learning and cooperative learning as part of a group.

5) Arrange lesson plans and assignments to allow students some kind of choice in their work. Allow students to feel like they are being allowed to freely partake in some of the learning process by choosing their own assignments, rather than consistently requiring assignments.

Teachers and IP faculty instructors are encouraged to utilize teaching methods that target course relevance and promote student participation, which were indicated by gold stars in the figure below (Figure 6). The IP faculty leaders can also incorporate relevance and social interactions into the best practices for post-IPs recommended by Rodriguez and Roberts (2011) (Appendix C).

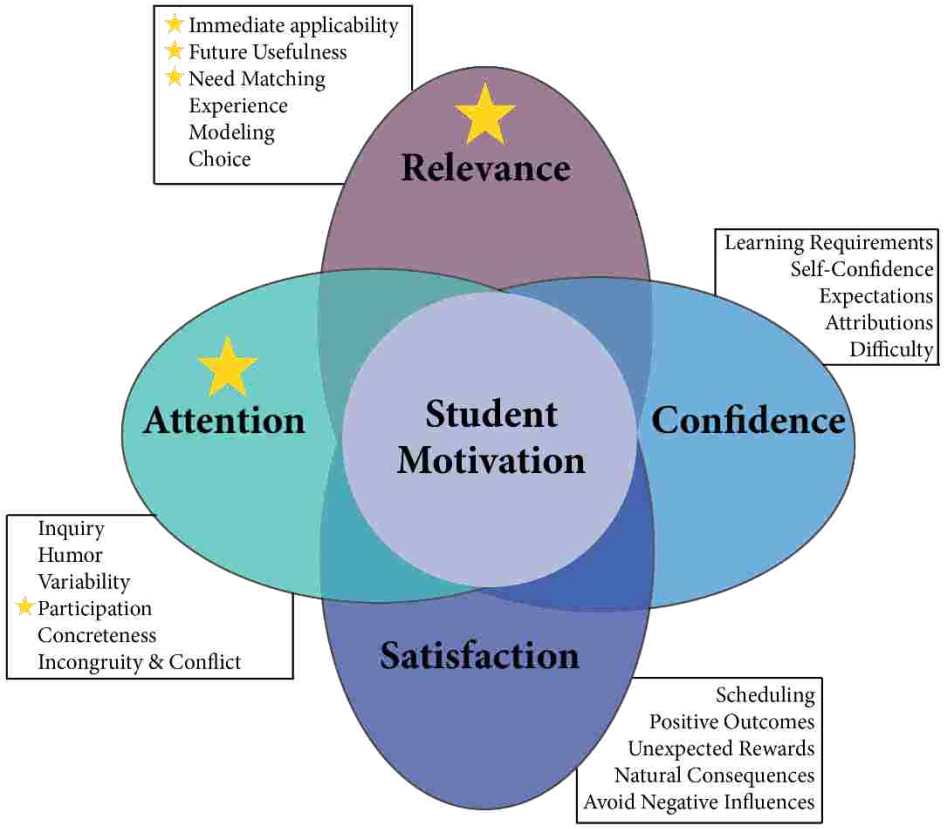

Figure 6. Attention, Relevance, Confidence, Satisfaction Model of Motivational Design Theories for promoting and sustaining motivation in the learning process Adapted from "Motivational Design for Learning and Performance: The ARCS Model Approach," by J. M. Keller, 2009, New York: NY: Springer Science & Business Media.

The second hypothesis that stated there will be a statistically significant difference in student engagement was accepted. The findings from this study resulted in implications for practitioners. It is recommended that educators work to implement teaching practices and post-IP methods that increase skill engagement and emotional engagement. As mentioned in Chapter Two in the conceptual framework, student motivation and engagement were shown to share direct connections and when one was changed the other was influenced (Figure 2). The implications for practitioners are aimed to increase intrinsic motivation and should also increase student skill engagement in addition to emotional engagement. Brito (2018) analyzed employee engagement in the workplace in association with Maslow's hierarchy to better understand how

individuals can achieve their fullest potential (Figure 7). This model can be translated to students and the educational system for which they are a part of. Brito (2018) suggested that if individuals are able to progress upward in Maslow's hierarchy, their engagement is also predicted to rise. This implication is applicable towards IP participants and the need to shift their extrinsic motivations from the "basic need" (security and survival) upward to the psychological needs (belonging and importance). The psychological needs are more intrinsically motivated and is also associated with higher levels of engagement according to Brito (2018) (Figure 4 and Figure 7).

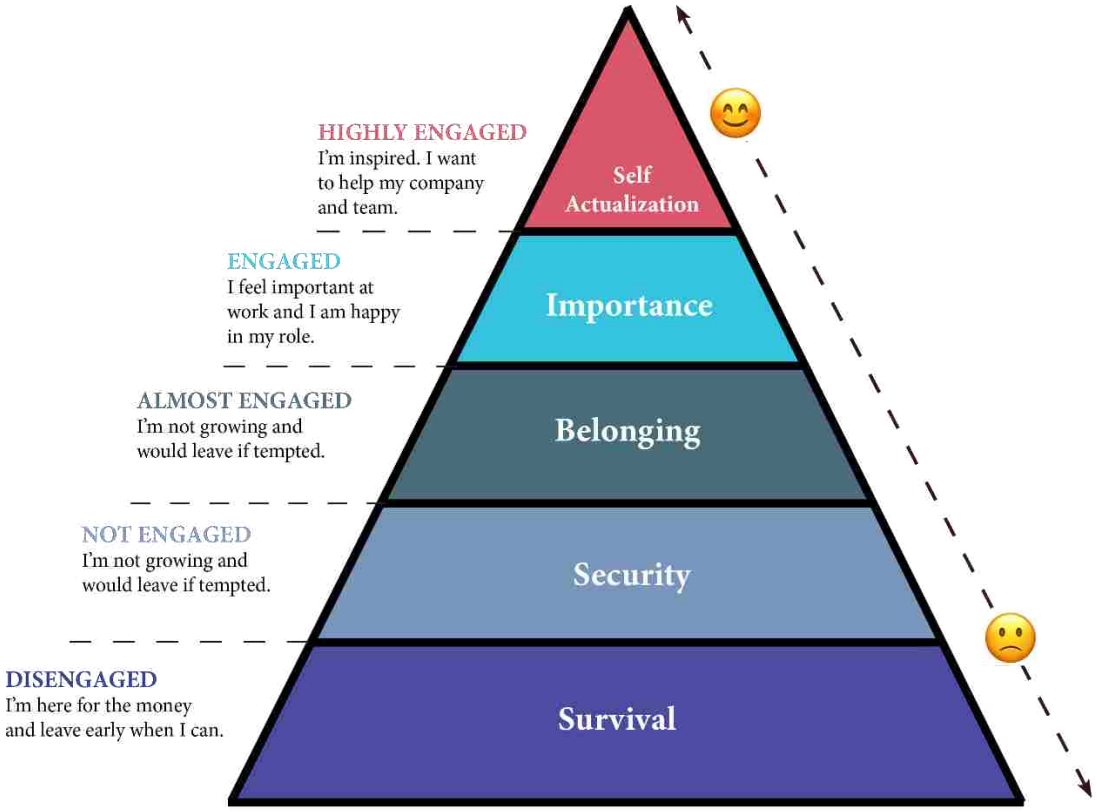

Figure 7. Maslow's hierarchy as a method to better understand a company's relationship with its employees, as well as the employee's motivation to become an advocate for the organization. Adapted from "Maslow's Hierarchy of Needs also Works for Employee Engagement," by M. Brito, 2018, retrieved from https://www.cmo.com/opinion/articles/2018/3/15/mapping-maslows-hierarchy-of-needs-to-employee-advocacy.html#gs.47zlbe.

Historically, the majority of practitioners have aimed to increase student motivation to continue college and student engagement in the classroom. The results from this study were not needed to reconfirm the importance of student motivation and engagement within educational settings. However, this study has led to University of Arkansas specific recommendations that practitioners should implement to address the decrease in student motivation and engagement post-IP. S. Malloy (personal communication, April 30, 2019) indicated that collaborations should be increased between the U of A Office of Study Abroad and the U of A ICT aimed to help students returning from a IP "unpack" their experiences.

> The ICT is a dynamic team of international students, scholars, and their spouses, as well as, American students who have studied abroad and are eager to share about their culture or a culture they have lived in, through cultural presentations, demonstrations, cooking, displays, clothing, and performances. ICT's goals are to bring the world to our campus and community; break stereotypes; put not well-known countries on the map; and develop a community that seeks to learn from each other (International Culture Team, 2019).

U of A students returning from an IP should be encouraged by the Office of Study Abroad, Bumpers College IPO, and IP faculty leaders to participate with the ICT. Furthermore, the Office of Study Abroad should implement a peer mentor program to engage returning IP students on campus and with other students. This peer mentor program is aimed at engaging students while also continuing the process of IP participation. S. Malloy (personal communication, April 30, 2019) explained, this peer mentor program would allow students to conduct classroom presentation, tabling events, and encourage IP participation while allowing students to reflect on their experiences abroad.

Implications for Further Study

The decrease in student motivation and student engagement over time may be linked to the end of the semester approaching and student's becoming less energized in their studies. It is

recommended to administer the same instrument used in this study to a group of college students not enrolled in an IP using the same time intervals from this research. This would help determine if the same results, a decrease in student motivation and student engagement, occur without an IP. This may also indicate that another research design should be implemented, with an altered timeline, to remove any unanticipated affects caused by the end of the semester.

More research needs to be conducted to determine best practices post-IPs. These best practices should address specific student motivation and engagement needs after returning to their home institution post-IP. Additional quantitative studies regarding student motivation and engagement, specifically intrinsic motivation, skills engagement, and emotional engagement are warranted in regard to IPs. Using techniques similar to those in this study, it would be possible to perform an analysis among various IP types (faculty-led, internships etc.) and program length to determine if these programmatic characteristics influence student motivation or engagement. Last, it would be possible to follow-up this study with qualitative study to determine if students identified specific classroom techniques or post-IP practices that could be implemented to combat the decrease in intrinsic motivation, skills engagement, and emotional engagement after an IP.

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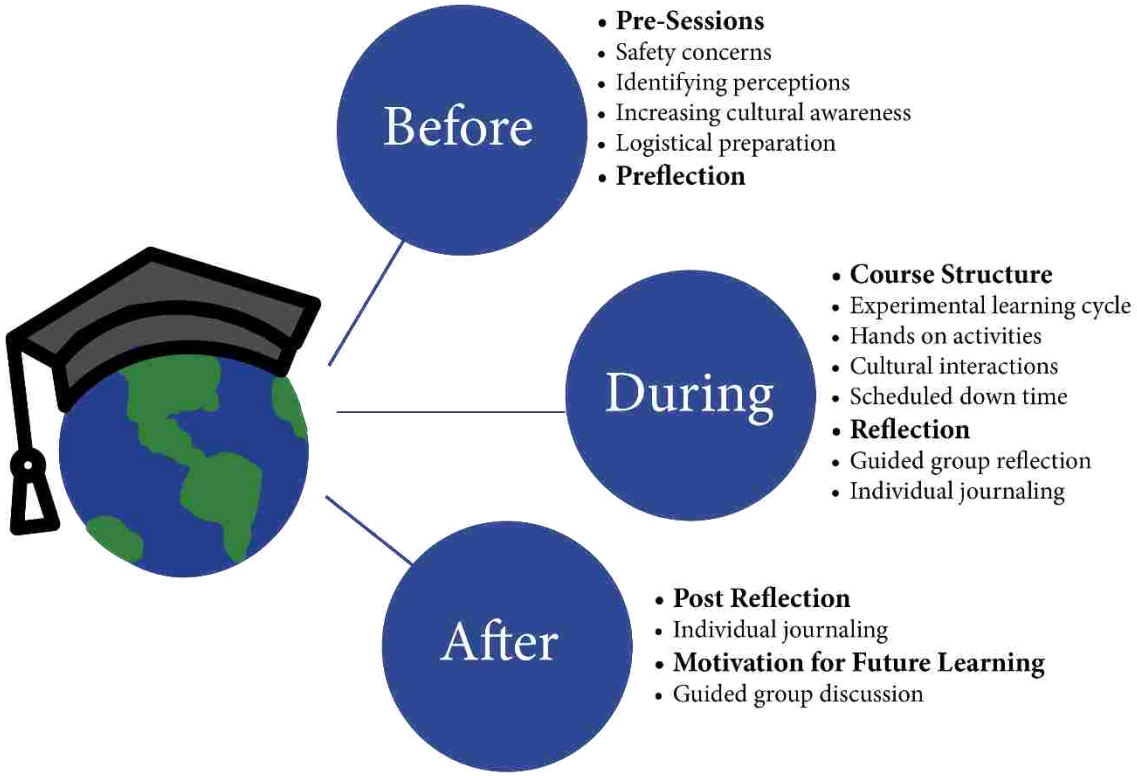
Appendices

Appendix A

Model for Best Practices in Study Abroad Programs. Adapted from "Identifying Best Practices for a Successful Study Abroad Program," by M. T. Rodriguez and T. G. Roberts, 2011, *Journal American of International Agricultural and Extension Education, 18,* p. 31.



Appendix B

Student motivation and engagement for attending college survey

2018-2019 Student Motivation & Engagement for Attending College Survey

You have been asked to participate in a study to determine your motivation and engagement for attending college. For the purpose of this study, please take into consideration all courses you have taken at the University of Arkansas (U of A). Your completion of the survey represents your implied consent to participate in this study. All information collected will be kept confidential to the extent allowed by the law, University policy, and will not reflect in any way on your grades in your coursework. This survey should take no longer than 10 minutes. If you have any questions or concerns about this study, you may contact Olivia Caillouet at (479)575-3345 or by email at occaillo@uark.edu. You may also contact Dr. Kate Shoulders at (479)575-3799 or by email at cshoulde@uark.edu. If you have any questions or concerns about your rights as a research participant, please contact Ro Windwalker, one of the University's Research Compliance Coordinators, at (479)575-2208 or irb@uark.edu.

Section I: Perceptions of Motivation

The following statements aim to understand your general perceptions of motivation for attending the U of A. Please circle the number that best indicates your opinion, from Does not correspond at all (1) to Corresponds exactly (7).

Does not correspond at all		Corresponds a little		Corresponds moderately	Corresponds a lot		Corresponds exactly
1	2		3	4	5	6	7

I attended the U of A:

1)	Because with only a high-school degree I would not find a high-paying job later on.	1	2	3	4	5	6	7
2)	Because I experience pleasure and satisfaction while learning new things.	1	2	3	4	5	6	7
3)	Because I think that a college education will help me better prepare for the career I have chosen.	1	2	3	4	5	6	7
4)	Because of the intense feelings I experience when I am communicating my own ideas to others.	1	2	3	4	5	6	7
5)	Because honestly, I don't know; I really feel that I am wasting my time in school.	1	2	3	4	5	6	7
6)	Because of the pleasure I experience while surpassing myself in my studies.	1	2	3	4	5	6	7
7)	To prove to myself that I am capable of completing my college degree.	1	2	3	4	5	6	7
8)	In order to obtain a more prestigious job later on.	1	2	3	4	5	6	7
9)	For the pleasure I experience when I discover new things never seen before.	1	2	3	4	5	6	7
10)	Because eventually it will enable me to enter the job market in a field that I like.	1	2	3	4	5	6	7
11)	For the pleasure that I experience when I read interesting authors.	1	2	3	4	5	6	7

Appendix B Continued

Does not correspond at all		Corresponds a little		Corresponds moderately		Corresponds a lot		Corresponds exactly
1	2		3	4	5		6	7

I attended the U of A:

12)	Because I once had good reasons for going to college; however, now I wonder whether I should continue.	1	2	3	4	5	6	7
13)	For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments.	1	2	3	4	5	6	7
14)	Because of the fact that when I succeed in college I feel important.	1	2	3	4	5	6	7
15)	Because I want to have "the good life" later on.	1	2	3	4	5	6	7
16)	For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.	1	2	3	4	5	6	7
17)	Because this will help me make a better choice regarding my career orientation.	1	2	3	4	5	6	7
18)	For the pleasure that I experience when I feel completely absorbed by what certain authors have written.	1	2	3	4	5	6	7
19)	Well, I can't see why I go to college and frankly, I couldn't care less.	1	2	3	4	5	6	7
20)	For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.	1	2	3	4	5	6	7
21)	To show myself that I am an intelligent person.	1	2	3	4	5	6	7
22)	In order to have a better salary later on.	1	2	3	4	5	6	7
23)	Because my studies allow me to continue to learn about many things that interest me.	1	2	3	4	5	6	7
24)	Because I believe a few additional years of education will improve my competence as a worker.	1	2	3	4	5	6	7
25)	For the "high" feeling that I experience while reading about various interesting subjects.	1	2	3	4	5	6	7
26)	Because I don't know; I can't understand what I am doing in school.	1	2	3	4	5	6	7
27)	Because college allows me to experience a personal satisfaction in my quest for excellence in my studies.	1	2	3	4	5	6	7
28)	Because I want to show myself, I can succeed in my studies.	1	2	3	4	5	6	7

[Source: © Vallerand, R.J., Pelletier, G.L., Blais, M.R., Brière, N.M., Senécal, C.B., & Vallières, E.F. (1992)]

2

Section II: Perceptions of Engagement

To following statements aim to understand your behaviors, thoughts, and feelings, as a student at the U of A. Please rate each of them on the following scale from Not at all characteristic of me (1) to Very characteristic of me (5).

Not at all characteristic of me 1	Not really characteristic of me 2	Moderately characteristic of me 3	Characteristic of me 4	Very characteristic of me 5

29)	Raising my hand in class	1	2	3	4	5
30)	Participating actively in small group discussions	1	2	3	4	5
31)	Asking questions when I don't understand the instructor	1	2	3	4	5
32)	Doing all the homework problems	1	2	3	4	5
33)	Coming to class every day	1	2	3	4	5
34)	Going to the professor's office hours to review assignments or tests, or to ask questions	1	2	3	4	5
35)	Thinking about the course between class meetings	1	2	3	4	5
36)	Finding ways to make the course interesting to me	1	2	3	4	5
37)	Taking good notes in class	1	2	3	4	5
38)	Looking over class notes between classes to make sure I understand the material	1	2	3	4	5
39)	Really desiring to learn the material	1	2	3	4	5
40)	Being confident that I can learn and do well in the class	1	2	3	4	5
41)	Putting forth effort	1	2	3	4	5
42)	Being organized	1	2	3	4	5
43)	Getting a good grade	1	2	3	4	5
44)	Doing well on the tests	1	2	3	4	5
45)	Staying up on reading assignments	1	2	3	4	5
46)	Having fun in class	1	2	3	4	5
47)	Helping fellow students	1	2	3	4	5
48)	Making sure to study on a regular basis	1	2	3	4	5

3

	Not at all characteristic of me 1	Not really characteristic of me 2	Moderately characteristic of me 3	Characteristic of me 4	Very characteristic of me 5				
49)	Finding ways to make the course material relevant to my life				1	2	3	4	5
50)	Applying course material to my life				1	2	3	4	5
51)	Listening carefully in class				1	2	3	4	5

[Source: Handelsman, M. M., Briggs, W. L., Sullivan, N., & Towler, A. (2005)]

Section III: Perceptions of Agriculture

The following thoughts aim to describe your beliefs. Please rate each on the following scale from Strongly disagree (1) to Strongly agree (5).

	Strongly disagree 1	Disagree 2	No opinion 3	Agree 4	Strongly agree 5				
52)	Agriculture will become less important as the population of the earth increases and more people live and work in the city				1	2	3	4	5
53)	Agriculture touches my life everyday				1	2	3	4	5

[Source: Boleman, C.T., & Burrell, F. (2003)]

Section IV: Demographics

54) How many countries have you traveled to? (Circle the one that best applies)
A) None B) 1-2 C) 3-4 D) 5-6 E) 7-8 F) 9+

55) How many of those countries have you studied abroad in?
A) None B) 1 C) 2 D) 3+

56) What grade classification are you?
A) Freshman B) Sophomore C) Junior D) Senior E) Graduate

57 What is your gender? _____

58 What college are you in?
A) Bumpers B) Walton C) Fulbright D) COHEP E) Fay Jones F) Engineering

59) What is your current age? A) ≤ 18 B) 19-20 C) 21-22 D) ≥ 23

60) What is your major(s)? _____ 59) What is your minor(s)?_____

61) To the best of your knowledge what is your current GPA? (Circle the <u>one</u> that best applies)
A) ≤ 2.5 B) 2.5 – 2.8 C) 2.9 – 3.2 D) 3.3 – 3.6 E) 3.7 – 4.0

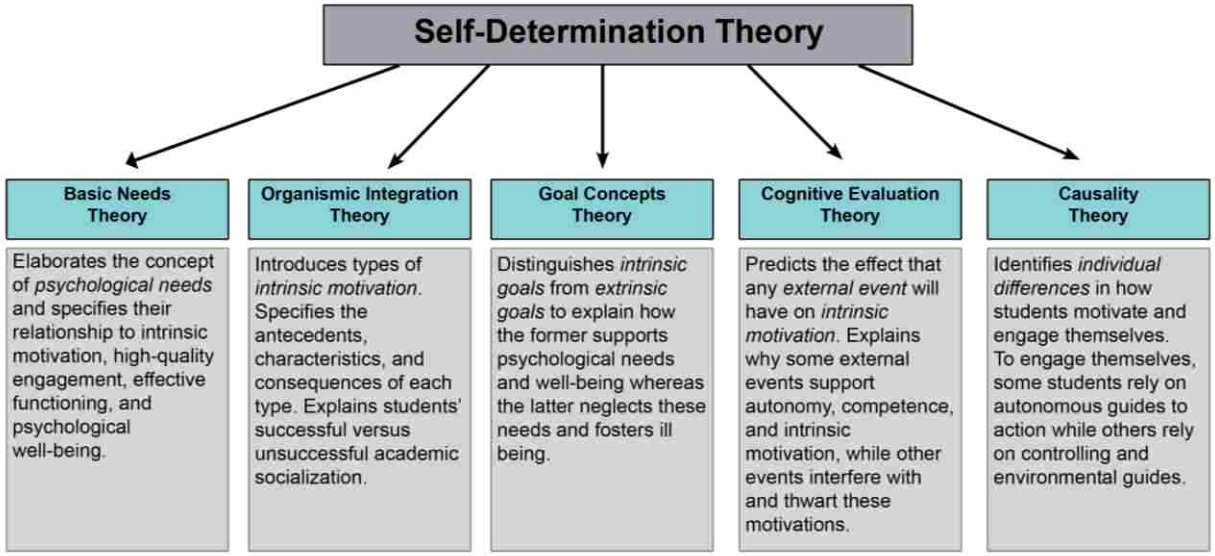
62) Are you in the Honors College? A) Yes B) No

63) What are the last 4 digits of your student ID?_____

4

Appendix C

A Self-determination Theory Perspective on Student Engagement. Adapted from "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-being," by R. M. Ryan and E. L. Deci, 2000, *American Psychologist, 55*, p. 72, Retrieved from https://selfdeterminationtheory.org/SDT/documents/2000_RyanDeci_SDT.pdf.



Appendix D

Internal Review Board (IRB) Research Approval

UNIVERSITY OF ARKANSAS.

To:	Olivia Caroline Caillouet
From:	Douglas James Adams, Chair IRB Committee
Date:	12/06/2017
Action:	**Exemption Granted**
Action Date:	12/06/2017
Protocol #:	1711083219
Study Title:	2017-2019 Student Motivation & Engagement for Attending College Survey

DOUG ADAMS

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Jefferson Davis Miller, Investigator
Kate Shoulders, Investigator
Mary Cathleen Savin, Investigator

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Appendix E

The Academic Motivation Scale (AMCS-28). Retrieved from "The Academic Motivation Scale: A Measure of Intrinsic, Extrinsic, and Amotivation in Education," R. J. Vallerand, L. G. Pelletier, M. R. Blais, N. M. Briere, C. Senecal, and E. F. Vallieres, 1992, *Educational and Psychological Measurement, 52.*

* http://ebookmarket.org/pdf/the-academic-motivation-scale-vallerand
http://www.tpmap.org/articoli/2006/4.3.pdf

http://www.hraljournal.com/Page/6%20Niall%20Hegarty.pdf

ACADEMIC MOTIVATION SCALE (AMS-C 28)

COLLEGE (CEGEP) VERSION

Robert J. Vallerand, Luc G. Pelletier, Marc R. Blais, Nathalie M. Brière, Caroline B. Senécal, Évelyne F. Vallières, 1992-1993

Educational and Psychological Measurement, vols. 52 and 53

Scale Description

This scale assesses the same 7 constructs as the Motivation scale toward College (CEGEP) studies. It contains 28 items assessed on a 7-point scale.

References

Vallerand, R.J., Blais, M.R., Brière, N.M., & Pelletier, L.G. (1989). Construction et validation de l'Echelle de Motivation en Éducation (EME). Revue canadienne des sciences du comportement, 21, 323-349.

Appendix E continued

WHY DO YOU GO TO COLLEGE (CEGEP) ?

Using the scale below, indicate to what extent each of the following items presently corresponds to one of the reasons why you go to college (CEGEP).

Does not correspond at all		Corresponds a little		Corresponds moderately		Corresponds a lot		Corresponds exactly
1	2	3	4	5	6	7		

WHY DO YOU GO TO COLLEGE (CEGEP) ?

1. Because with only a high-school degree I would not find a high-paying job later on.	1	2	3	4	5	6	7
2. Because I experience pleasure and satisfaction while learning new things.	1	2	3	4	5	6	7
3. Because I think that a college (CEGEP) education will help me better prepare for the career I have chosen.	1	2	3	4	5	6	7
4. For the intense feelings I experience when I am communicating my own ideas to others.	1	2	3	4	5	6	7
5. Honestly, I don't know; I really feel that I am wasting my time in school.	1	2	3	4	5	6	7
6. For the pleasure I experience while surpassing myself in my studies.	1	2	3	4	5	6	7
7. To prove to myself that I am capable of completing my college (CEGEP) degree.	1	2	3	4	5	6	7
8. In order to obtain a more prestigious job later on.	1	2	3	4	5	6	7
9. For the pleasure I experience when I discover new things never seen before.	1	2	3	4	5	6	7
10. Because eventually it will enable me to enter the job market in a field that I like.	1	2	3	4	5	6	7
11. For the pleasure that I experience when I read interesting authors.	1	2	3	4	5	6	7
12. I once had good reasons for going to college (CEGEP); however, now I wonder whether I should continue.	1	2	3	4	5	6	7
13. For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments.	1	2	3	4	5	6	7
14. Because of the fact that when I succeed in college (CEGEP) I feel important.	1	2	3	4	5	6	7
15. Because I want to have "the good life" later on.	1	2	3	4	5	6	7

Appendix E continued

Does not correspond at all		Corresponds a little		Corresponds moderately		Corresponds a lot		Corresponds exactly
1	2	3	4	5	6	7		

WHY DO YOU GO TO COLLEGE (CEGEP) ?

16. For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.	1	2	3	4	5	6	7
17. Because this will help me make a better choice regarding my career orientation.	1	2	3	4	5	6	7
18. For the pleasure that I experience when I feel completely absorbed by what certain authors have written.	1	2	3	4	5	6	7
19. I can't see why I go to college (CEGEP) and frankly, I couldn't care less.	1	2	3	4	5	6	7
20. For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.	1	2	3	4	5	6	7
21. To show myself that I am an intelligent person.	1	2	3	4	5	6	7
22. In order to have a better salary later on.	1	2	3	4	5	6	7
23. Because my studies allow me to continue to learn about many things that interest me.	1	2	3	4	5	6	7
24. Because I believe that a few additional years of education will improve my competence as a worker.	1	2	3	4	5	6	7
25. For the "high" feeling that I experience while reading about various interesting subjects.	1	2	3	4	5	6	7
26. I don't know; I can't understand what I am doing in school.	1	2	3	4	5	6	7
27. Because college (CEGEP) allows me to experience a personal satisfaction in my quest for excellence in my studies.	1	2	3	4	5	6	7
28. Because I want to show myself that I can succeed in my studies.	1	2	3	4	5	6	7

KEY FOR AMS-28

# 2, 9, 16, 23	Intrinsic motivation - to know
# 6, 13, 20, 27	Intrinsic motivation - toward accomplishment
# 4, 11, 18, 25	Intrinsic motivation - to experience stimulation
# 3, 10, 17, 24	Extrinsic motivation - identified
# 7, 14, 21, 28	Extrinsic motivation - introjected
# 1, 8, 15, 22	Extrinsic motivation - external regulation
# 5, 12, 19, 26	Amotivation

Appendix F

Student engagement questionnaire. Retrieved from "A Measure of College Student Course Engagement," by M. M. Handelsman, W. L. Briggs, W. L. Sullivan and A. Towler, 2005, *Journal of Educational Research, 98.*

STUDENT ENGAGEMENT QUESTIONNAIRE

To what extent do the following behaviors, thoughts, and feelings describe *you, in this course.* Please rate each of them on the following scale:

5 = very characteristic of me
4 = characteristic of me
3 = moderately characteristic of me
2 = not really characteristic of me
1 = not at all characteristic of me

1. _____ Raising my hand in class
2. _____ Participating actively in small group discussions
3. _____ Asking questions when I don't understand the instructor
4. _____ Doing all the homework problems
5. _____ Coming to class every day
6. _____ Going to the professor's office hours to review assignments or tests, or to ask questions
7. _____ Thinking about the course between class meetings
8. _____ Finding ways to make the course interesting to me
9. _____ Taking good notes in class
10. _____ Looking over class notes between classes to make sure I understand the material
11. _____ Really desiring to learn the material
12. _____ Being confident that I can learn and do well in the class
13. _____ Putting forth effort
14. _____ Being organized

15. _____ Getting a good grade

16. _____ Doing well on the tests

17. _____ Staying up on the readings

18. _____ Having fun in class

19. _____ Helping fellow students

20. _____ Making sure to study on a regular basis

21. _____ Finding ways to make the course material relevant to my life

22. _____ Applying course material to my life

23. _____ Listening carefully in class

[Source: Handelsman, M. M., Briggs, W. L., Sullivan, N., & Towler, A. (2005). A measure of college student course engagement. *Journal of Educational Research, 98,* 184-191.]

Appendix F continued

SCEQ: STUDENT ENGAGEMENT SCORING

[Source: Handelsman, M. M., Briggs, W. L., Sullivan, N., & Towler, A. (2005). A measure of college student course engagement. *Journal of Educational Research, 98*, 184-191.]

For the total score, simply add up the answers. For each subscale, simply add up the answers for the questions in each subscale.

SKILLS ENGAGEMENT SUBSCALE

4. _____ Doing all the homework problems
5. _____ Coming to class every day
9. _____ Taking good notes in class
10. _____ Looking over class notes between classes to make sure I understand the material
13. _____ Putting forth effort
14. _____ Being organized
17. _____ Staying up on the readings
20. _____ Making sure to study on a regular basis
23. _____ Listening carefully in class

EMOTIONAL ENGAGEMENT SUBSCALE

7. _____ Thinking about the course between class meetings
8. _____ Finding ways to make the course interesting to me
11. _____ Really desiring to learn the material
21. _____ Finding ways to make the course material relevant to my life
22. _____ Applying course material to my life

Appendix F continued

PARTICIPATION/INTERACTION ENGAGEMENT SUBSCALE

1. _____ Raising my hand in class
2. _____ Participating actively in small group discussions
3. _____ Asking questions when I don't understand the instructor
6. _____ Going to the professor's office hours to review assignments or tests, or to ask questions
18. _____ Having fun in class
19. _____ Helping fellow students

PERFORMANCE ENGAGEMENT SUBSCALE

12. _____ Being confident that I can learn and do well in the class
15. _____ Getting a good grade
16. _____ Doing well on the tests

Appendix G

The Number of Countries Respondents Traveled to Before and Two-weeks Post International Program (IP) (n = 24)

Number of countries traveled to	*f*	%
Before-IP		
None	1	4.2
1-2	8	33.3
2-3	2	8.3
3-4	4	16.7
4-5	3	12.5
6+	6	25.0
Two-weeks post-IP		
None	0	0.0
1-2	4	16.7
2-3	5	20.8
3-4	4	16.7
4-5	3	12.5
6+	7	29.2
No response	1	4.1

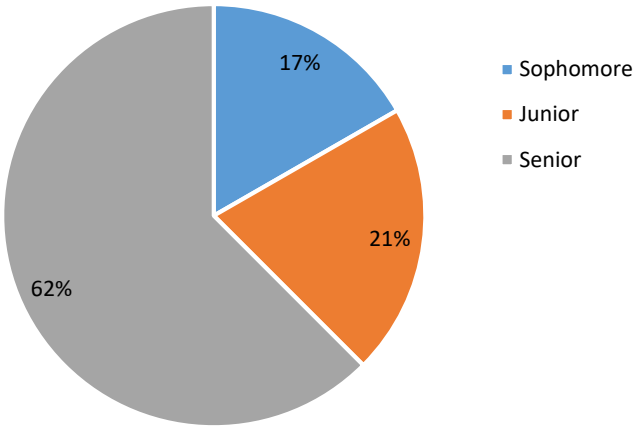
Appendix H

The Number of Countries Respondents Studied Abroad in Before and Two-weeks Post International Program (IP) (n = 24)

Number of countries studied abroad in	*f*	%
Before-IP		
None	3	12.5
1	6	25.0
2	8	33.3
3+	7	29.2
Two-weeks post-IP		
None	0	0.0
1	8	33.3
2	8	33.3
3+	7	29.2
No response	1	4.2

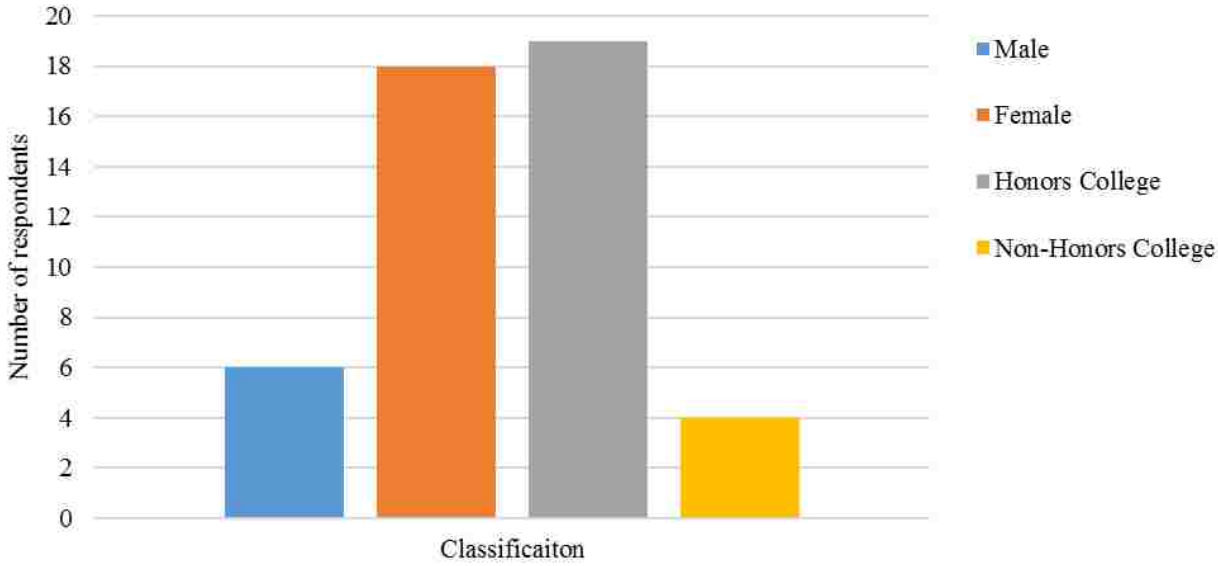
Appendix I

The Grade Classification of Pilot Survey Respondents Before and Two-weeks Post International Program (*n* = 24).



Appendix J

The Gender and Honors College Enrollment of Pilot Survey Respondents Before and Two-weeks Post International Program (*n* = 24).



Appendix K

The College Classification of Pilot Survey Respondents Before and Two-weeks Post International Program (IP) (n = 24)

College classification	*f*	%
Before-IP		
Bumpers[1]	7	29.2
Walton[2]	0	0.0
Fulbright[3]	12	50.0
COEHP[4]	0	0.0
Fay Jones[5]	0	0.0
Engineering[6]	5	20.8
Double Major	0	0.0
Two-weeks post-IP		
Bumpers	6	25.0
Walton	0	0.0
Fulbright	14	58.3
COEHP	0	0.0
Fay Jones	0	0.0
Engineering	4	16.7
Double Major	0	0.0

Note. 1 = Dale Bumpers College of Agricultural, Food and Life Sciences; 2 = Sam M. Walton College of Business; 3 = J. William Fulbright College of Arts and Sciences; 4 = College of Education & Health Professions; 5 = Fay Jones School of Architecture and Design; 6 = College of Engineering.

Appendix L

The Current Age of Pilot Survey Respondents Before and Two-weeks Post International Program (IP) (n = 24)

Age	*f*	%
≤ 18	0	0.0
19-20	8	33.3
21-22	16	66.7
≥ 23	0	0.0

Appendix M

The Current Grade Point Average of Pilot Survey Respondents Before and Two-weeks Post International Program (IP) (n = 24)

Grade point average	*f*	%
Before-IP		
≤ 2.5	0	0.0
2.5-2.8	0	0.0
2.9-3.2	0	0.0
3.3-3.6	4	16.7
3.7-4.0	20	83.3
Two-weeks post-IP		
≤ 2.5	0	0.0
2.5-2.8	0	0.0
2.9-3.2	0	0.0
3.3-3.6	1	4.2
3.7-4.0	23	95.8

Appendix N

Before-IP (*n* = 43) and the Comparative Group (*n* = 86) Motivation for Continuing College Constructs for Students with No Previous International Program (IP) Experience

Motivation constructs	*SS*	*MS*	*F*	*p*	η^2
Intrinsic motivation ‘to know’ (M1)					
Between	5.396	5.396	0.274	0.601	0.002
Error					
Intrinsic motivation ‘toward accomplishment’ (M2)					
Between	17.043	17.043	0.663	0.417	0.005
Error					
Intrinsic motivation ‘to experience stimulation’ (M3)					
Between	10.465	10.465	0.388	0.534	0.003
Error					
Extrinsic motivation ‘identified’ (M4)					
Between	18.383	18.383	1.362	0.245	0.011
Error					
Extrinsic motivation ‘introjected’ (M5)					
Between	95.471	95.471	3.098	0.081	0.024
Error					
Extrinsic motivation ‘external regulation’ (M6)					
Between	53.902	53.902	3.707	0.056	0.028
Error					
Amotivation (M7)					
Between	11.785	11.785	0.688	0.408	0.005
Error					

Appendix O

Before-IP (n = 43) and the Comparative Groups (n = 86) Engagement in the Classroom Constructs for Students with No Previous International Program (IP) Experience

Engagement constructs	*SS*	*MS*	*F*	*p*	η^2
Skills engagement (E1)					
Between	4.795	4.795	0.121	0.729	0.001
Error					
Emotional engagement (E2)					
Between	0.709	0.709	0.043	0.836	0.000
Error					
Participation/ interaction engagement (E3)					
Between	13.954	13.954	0.790	0.376	0.006
Error					
Performance engagement (E4)					
Between	2.524	2.524	0.574	0.450	0.004
Error					

Appendix P

The Effects of International Programs (IP) on Student Motivation for Continuing College Pre-IP, two-weeks Post-IP, and three-months Post-IP (n = 24)

Motivation constructs	*SS*	*MS*	*F*	*p*	η^2
Intrinsic motivation 'to know' (M1)					
Between	118.36	77.16	549.214	0.018*	0.180
Error	537.64	15.24			
Intrinsic motivation 'toward accomplishment' (M2)					
Between	8.44	4.461	0.299	0.731	0.013
Error	648.90	14.90			
Intrinsic motivation 'to experience stimulation' (M3)					
Between	7.19	3.72	0.456	0.630	0.019
Error	362.81	8.15			
Extrinsic motivation 'identified' (M4)					
Between	60.91	43.16	2.153	0.144	0.082
Error	679.09	20.05			
Extrinsic motivation 'introjected' (M5)					
Between	32.86	18.81	1.661	0.205	0.067
Error	455.14	11.33			
Extrinsic motivation 'external regulation' (M6)					
Between	10.11	5.61	0.730	0.475	0.031
Error	318.56	7.68			
Amotivation (M7)					
Between	.333	0.18	0.146	0.844	0.006
Error	52.33	1.26			

Note. * = p <0.05

Appendix Q

The Effects of International Programs (IP) on Student Engagement in the Classroom Pre-IP, two-weeks Post-IP, and Three-months Post-IP (n = 24)

Engagement constructs	*SS*	*MS*	*F*	*p*	η^2
Skills engagement (E1)					
Between	32.86	16.46	3.557	0.037*	0.134
Error	212.47	4.63			
Emotional engagement (E2)					
Between	18.78	11.14	4.473	0.023*	0.163
Error	96.56	2.49			
Participation/ interaction engagement (E3)					
Between	0.361	0.181	0.057	0.943	0.002
Error	146.97	45.37			
Performance engagement (E4)					
Between	3.36	1.71	1.658	0.202	0.067
Error	46.64	1.03			

Note. * = p <0.05