The Relationship Between Living Learning Communities and Student Success on First-Year and Second-Year Students at the University of South Florida

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The Relationship Between Living Learning Communities and Student Success
on First-Year and Second-Year Students at the University of South Florida

by

Mark M. Stier

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Education
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Date of Approval: March 5, 2014

Keywords: Living Learning Community, Interest-Based Learning Community, Academic-Based Learning Community, Persistence, Academic Success

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DEDICATION

I dedicate this dissertation to my very patient wife, Barbara, who has supported me throughout the years both financially and emotionally. Without her encouragement and personal sacrifice I would never have seen the light at the end of the tunnel. Her dreams of a better future for our children, Jackson and Katherine, have been the driving force behind the years of dedication and perseverance throughout this entire process. Without her spirit and vision none of this would have been possible.

I would also like to thank my parents, Bill and Veronica Stier, for their support. No matter the obstacle they made sure I had a helping hand in order to succeed. It was through their dream of a better tomorrow for my own family that failure was never an option.
ACKNOWLEDGMENTS

I would like to express the deepest appreciation to my committee co-chairs, Dr. Don Dellow and Dr. Tom Miller. It is with deepest gratitude that I humbly acknowledge the time and energy both these men put into assisting me in the completion of this dissertation. Without their constant supervision, attention to detail and willingness to share their knowledge I would not have succeeded in this long journey. If not for their guidance none of this would have been possible. I hope to live up to their standards as a professional and someday a mentor.
TABLE OF CONTENTS

List of Tables .................................................................................................................. iii

List of Figures .................................................................................................................. v

Abstract .......................................................................................................................... vi

Chapter One: Introduction .............................................................................................. 1
  Problem Statement ......................................................................................................... 7
  Purpose of Study ........................................................................................................... 8
  Research Question ......................................................................................................... 8
  Theoretical Framework ................................................................................................. 9
  Significance of Study .................................................................................................... 12
  Research Design .......................................................................................................... 13
  Operational Definition of Terms .................................................................................. 14
  Delimitations ................................................................................................................ 16
  Limitations ................................................................................................................... 17
  Organization of Remaining Chapters ......................................................................... 19
  Researcher Subjectivity ............................................................................................... 20

Chapter Two: Review of Literature .................................................................................. 22
  History of Residential Communities ........................................................................... 22
  Retention and Involvement Theories ............................................................................ 26
    Tinto’s Model of Institutional Departure ................................................................. 27
    Astin’s Theory of Involvement .................................................................................. 30
    Astin’s Inputs-Environment-Outcomes (I-E-O) Model ............................................ 34
  Living Learning Communities .................................................................................... 37
    Cluster Courses ....................................................................................................... 42
    First-Year Interest Groups (FIGs) .......................................................................... 42
    Linked Courses ....................................................................................................... 43
    Coordinated Studies ............................................................................................... 43
  Residence Based Program Model ............................................................................. 43
  Design and Implementation ....................................................................................... 45
  Academic and Student Affairs Partnership ............................................................... 48
  Academic Impact ....................................................................................................... 53
  Persistence Rates ....................................................................................................... 63
  Ethnicity and Gender ................................................................................................ 71
  Challenges and Barriers ............................................................................................ 75
  Summary .................................................................................................................... 79
LIST OF TABLES

Table 1: University Student Diversity Profile .................................................................87
Table 2: Enrollment Status First-Year Students ...............................................................98
Table 3: Enrollment Status Second-Year Students ...........................................................99
Table 4: Mean and Standard Deviation: Academic Success by Residence Type – First-Year Students ...............................................................104
Table 5: ANOVA: Academic Success by Residence Type – First-Year Students .............105
Table 6: Tukey's Studentized Range (HSD) Test for Fall 2012 GPA – First-Year Students ...............................................................105
Table 7: Mean and Standard Deviation: Academic Success by Residence Type – Second-Year Students ...............................................................106
Table 8: ANOVA: Academic Success by Residence Type – Second-Year Students ..........106
Table 9: Tukey's Studentized Range (HSD) Test for Fall 2012 GPA – Second-Year Students ...............................................................107
Table 10: Least Squares Means - Adjustment for Multiple Comparisons: Tukey-Kramer – First-Year Students ...............................................................107
Table 11: ANCOVA: High School Grade Point Average and Fall 2012 GPA by Residence Type – First-Year Students ...............................................................109
Table 12: Least Squares Means - Adjustment for Multiple Comparisons: Tukey-Kramer– Second-Year Students ...............................................................110
Table 13: ANCOVA: High School Grade Point Average by Residence Type – Second-Year -Students ...............................................................111
Table 14: Persistence Rates by Residence Type – First-Year Students ................................114
Table 15: ANOVA: Persistence Rates by Residence Type – First-Year Students ..........114
Table 16: Persistence Rates by Residence Type – Second-Year Students ........................................115

Table 17: ANOVA: Persistence Rates by Residence Type – Second-Year Students ..................115

Table 18: 2 x 3 ANOVA: Gender and Residence Type on Persistence Rates – First-Year Students. ..........................................................................................................................116

Table 19: 2 x 3 ANOVA: Gender and Residence Type on Persistence Rates – Second-Year Students ..........................................................................................................................117

Table 20: 3 x 4 ANOVA: Ethnicity and Residence Type on Persistence Rates – First-Year Students ..........................................................................................................................119

Table 21: 3 x 4 ANOVA: Ethnicity and Residence Type on Persistence Rates – Second-Year Students ..................................................................................................................120
LIST OF FIGURES

Figure 1: Inputs-Environment-Outcomes (I-E-O) Model ......................................................... 12

Figure 2: Tinto’s Model of Institutional Departure ..................................................................... 28

Figure 3: Major Constructs of the 2007 NSLLP Baseline Survey Instrument Input-Environment-Outcome Model .............................................................................................. 36

Figure 4: Common Types of Learning Communities ................................................................. 42

Figure 5: Linearity and normality assumption tests for First-Year Students .......................... 101

Figure 6: Linearity and normality assumption tests for Second-Year Students ..................... 102

Figure 7: Regression graph for predicting college academic success (Fall 2012 GPA) from high school GPA (HSGPA) among first-years students by residence type ........................................................................................................ 108

Figure 8: Tukey-Kramer adjustment for multiple comparison controlling for high school GPA, Fall 2012 GPA and residence types among first-year students ........................................................................................................ 109

Figure 9: Regression graph for predicting college academic success (Fall 2012 GPA) from high school GPA (HSGPA) among second-year students by residence type ........................................................................................................ 111

Figure 10: Tukey-Kramer adjustment for multiple comparison controlling for high school GPA, Fall 2012 GPA and residence types among second-year students ........................................................................................................ 112

Figure 11: Interaction graph for gender for residence type among first-year students .......... 117

Figure 12: Interaction graph for gender for residence type among second-year students ........ 118

Figure 13: Interaction graph for ethnicity and residence type on persistence rate among first-year students ........................................................................................................ 119
Figure 14: Interaction graph for ethnicity and residence type on persistence rate among second-year students
ABSTRACT

The college experience for many students is an exciting and sometimes awe-inspiring journey. For the first time many students find themselves responsible for making life altering decisions that will determine the course of their adult lives for years to come. They are making the decisions to participate in specific academic majors, a variety of housing options and a multitude of extra-curricular activities. Unfortunately, without proper guidance and structure many of these students find themselves unable to cope with the new challenges of academia, faculty staff interaction, peer relationships and financial obligations. It is because of these challenges that institutions of higher education must take a proactive approach in addressing the unique needs of their students.

Of the estimated three million undergraduate college students entering higher education today “. . . nearly 30-40% of these students drop out without obtaining a college degree” (Enochs & Roland, 2006, p. 63). As a result of the challenges faced by these students, institutions are recognizing the importance of developing initiatives and support services to address the deficiencies in maturity, academics and social skills. One such initiative being implemented by institutions is the development and execution of living learning communities. The strengths of living learning communities are their adaptability, affordability and potential to address institutional concerns such as engagement, student persistence rates and academic success. Growing out of the college retention research of Alexander Astin (1993) and Vincent Tinto (1993), this current study examines the relationships between living learning communities and their influence on
academic success and persistence rates of students who first matriculated in the Fall of 2010 or 2011, and were still enrolled in the Fall 2012 semester for first-year and second-year students at the University of South Florida.
Since the 1920s and the introduction of Alexander Meiklejohn’s Experimental College (Rudolph, 1990) at the University of Wisconsin-Madison, the academic success and the development of critical thinking skills of students has been a priority in higher education. Countless studies have investigated numerous learning environments seeking to understand how these communities impact the educational and social experiences of students (Astin, 1993; Tinto, 1993; Pascarella & Terenzini, 2005; Upcraft, Gardner, Barefoot & Associates, 2005). The college experience for many students can be an exciting and challenging journey. These students are saying “goodbye” to childhood friends, family members and the security that was their home life. A majority of these college students are leaving home for the first time and are expected to assume responsibility and accountability regarding their decisions as young adults. In many cases, these students take on these challenges without any previous experience in independent decision making.

Prior to attending college many students have had their high school careers laid out before them by well-meaning parents/guardians in preparation for their transition to higher education. As a result, in many instances these students have had little involvement in their own educational processes or goals. It is because of these challenges, and the lack of preparedness, that colleges and universities need to be proactive in addressing the unique needs of students. To
increase the probability of student success, faculty and student affair professionals need to collaborate on constructing environments conducive to academic success and institutional persistence rates. Failure to take into consideration the academic and social needs of the students may have detrimental consequences not only for students, families and higher education, but may ultimately have social and financial implications for society.

The Policy Center on the First Year of College (2002) surveyed over a thousand two and four year institutions (Enochs & Roland, 2006). Data were analyzed for two-year verses four-year institutions, by size and Carnegie classification. Results indicated an overwhelming majority of institutions (94.1%) in the United States offered some type of learning community. Of the estimated three million first time undergraduate in college students (FTIC) entering higher education today, “. . . nearly 30-40% of these students drop out without obtaining a college degree” (Enochs & Roland, 2006, p. 63). Statistics from the U.S. Census Bureau (2010) indicated that individuals with college degrees, and working full-time, can expect to earn $2.1 million during their lifetime. This was four times higher than those individuals with just a high school degree. According to the U.S. Department of Education (2010), roughly 74% of individuals with bachelor's degrees, or higher, were employed full time compared to 55% of high school graduates.

When analyzing the time and cost involved in recruiting and retaining students, Tinto (1998) estimated it is more cost-effective to retain three-five currently enrolled students rather than attempting to recruit one new student to an institution. The benefits of obtaining a college degree have long range financial implications not only for the student and the institution, but for society as well. Findings suggest that residential communities provide supportive and nurturing environments that enhance student success, institutional persistence rates, informal and formal
learning, a sense of community and personal development (Upcraft, Gardner, Barefoot & Associates, 2005). Together, the residential component and the learning community form a powerful scholastic tool that may be ideal for successfully merging academic curriculums and co-curricular opportunities. It will be these purposeful learning opportunities developed in living learning communities which may result in long term student success and financial stability for the student as well as the institution and society.

In 1994, the American College Personnel Association (ACPA) released “The student learning imperative: Implications for student affairs”. This document advocated the importance of collaborative partnerships with a variety of institutional constituencies whose responsibility was to assist in the creation of an educational environment conducive to an integrated learning experience for students. A major focus in this document was the decrease in the holistic educational approach by faculty members in favor of course specific instruction. The Student Learning Imperative emphasized: 1) the importance of refocusing educational goals, 2) new teaching strategies and 3) updating program objectives targeted at the development of a deeper and all-inclusive learning experience for students. The ACPA charged student affair professionals with the task of engaging faculty members as collaborative partners sharing the responsibility for creating a seamless learning environment. This report outlined the importance of in-classroom and out-of-classroom experiences in promoting learning objectives and purposeful activities contributing to academic success, increased persistence rates and the personal development of students (America College Personal Association, 1994).

While the origins of learning communities can be traced back to the Experimental College at the University of Wisconsin (Rudolph, 1990) the widespread use of learning communities is a relatively recent phenomenon in higher education. It wasn’t until the late 1980s
and early 1990s that programs for students were specifically linked to academic courses and disciplines. Today, such programs are more common among many institutions. “The reason for the growing popularity of learning communities is simple: they work” (Pike, 2008, p. 30). The growth and specialization of these early learning communities from the 1980s and 1990s to the present time is so pronounced that they bear little resemblance to their earlier incarnations. To benefit from such collaborative initiatives, students must be able to partake in comprehensive intellectual and social experiences (and recognize their relationships) before fully developing critical thinking skills. Astin (1999) believed student success was determined by the successful integration of academic content with rich out-of-classroom experiences.

As a result of the many challenges previously mentioned, institutions are recognizing the importance of developing support services designed to provide intervention strategies to increase academic success and persistence rates. The term learning community describes an intentionally created environment which provides a variety of educational approaches that link classes together during a given term, often around an interdisciplinary theme. These learning communities enroll a cohort of students who are involved in both in-class and out-of-classroom educational experiences, but does not include a residential component (Macgregor & Smith, 2002). The impact of these communities goes far beyond the first-year experience. When thoughtfully implemented, learning communities can provide additional resources and support for students by promoting and maximizing learning opportunities. In many cases participation in these learning communities can be linked to future levels of academic success and institutional persistence rates.

There is substantial data that validates the effectiveness specific intervention strategies, such as learning communities, have in terms of increasing student satisfaction, academic success
and persistence rates (Astin, 1993; Barefoot & Koch, 2011; Gardner, 1991; Hotchkiss, Moore & Pitts, 2006; Upcraft, Gardner & Associates, 1989). These rich out-of-classroom experiences for many students occur within an institution’s residential living community. When purposefully structured around specific learning communities, these residential communities are identified as living learning communities. The concept of the living learning community is structured around a cohort of students linked together by specific courses focusing on an overall academic and/or interest-based theme in collaboration with a residential component. These experiences purposefully integrate in-classroom and out-of-classroom activities to provide heightened learning opportunities designed to increase the overall scholastic and involvement levels of participants.

Living learning communities accomplish these objectives by “. . . encouraging the integration of curriculum and allowing faculty to teach and students to learn in more interdisciplinary, intellectually stimulating, and challenging ways” (Upcraft, Gardner, Barefoot & Associates, 2005, p. 375). Results of the successful integration of these objectives may be identified by examining outcomes such as academic success scores and persistence rates. Active participation can provide students with a deeper understanding of course materials and increase the students’ ability to successfully integrate said materials into other areas of the curriculum utilizing critical thinking skills. “The point of doing so is to ensure that the sharing of a curriculum provides students with a coherent interdisciplinary experience that promotes a deeper type of learning than is possible in a standalone course” (Tinto, 1998, p. 2).

Clearly, there are many types of living learning communities but their overall goal basically remains the same from institution to institution. Living learning communities are designed to create partnerships that promote a deeper understanding of academic content while
engaging faculty, staff, students and their peers in their own learning processes. According to Shapiro & Levine (1999) a majority of living learning communities have three common factors:

1. Shared Knowledge: In creating a theme with specific courses for students to take together learning communities provide a shared educational experience.

2. Shared Knowing: When enrolling students together as a learning community it provides an opportunity for students to get to know each other quickly enhancing one’s own knowledge as part of the learning process.

3. Shared Responsibility: Students become interdependent upon one another. They must actively participate in the advancement of all members of the community.

Regardless of the types of living learning communities, most of them strive to develop enhanced critical thinking skills and increase the levels of persistence rates within the institution. In these instances, the process of collaborative learning is as important as course content. “The primary intent is to actively involve students in the learning process in a collaborative, rather than competitive, manner” (Tinto, 1993, p. 168). Sharing knowledge, getting to know one another and becoming interdependent upon one another will provide a smooth transition from passive learners to active learners and from passive participants to active participants. Edwards and McKelfresh (2002) determined that participation in living learning communities positively impacted student persistence rates. “Even when gender, ethnicity, previous academic performance, and other factors were taken into consideration, the research is clear, if not unequivocal, that living learning communities positively affect persistence.” (p. 396). In looking at student persistence rates, it is important to understand how negative experiences can lead students to withdraw from the institution, while positive experiences and interactions can encourage students to remain.
Inkelas (2008) believed that living learning communities embody everything higher education advocates. “They intentionally create small and intimate communities of membership: at their most optimal, they unite curricular, co-curricular, residential, and informal peer networks to augment student learning and development; and they represent a partnership for learning between academic and student affairs on college campus” (p. 9). Living learning communities continue to be seen as ideal environments for increasing the level of academic success and persistence rates, decreasing the time to degree completion and enhancing student’s intellectual development and critical thinking skills (Pascarella & Terenzini, 2005; Stassen, 2003; Zhoa & Kuh, 2004). According to Blimling (1999) the philosophy of living learning communities is based on the concept when students live together in a community of learning, where faculty participation and academic and social programs are purposefully joined, a seamless integration between the academic environment and the living environment can occur. Residential communities have always been considered to be a contributing factor for student success and institutional satisfaction (Astin, 1999; Cross, 1998; Tinto, 2003). Indeed, according to Pascarella and Terenzini (2005), these communities can be directly linked positively to persistence rates and graduation rates. Today, in a variety of institutional communities, under a multitude of different models, living leaning communities have shown to have had a substantial impact on student success.

**PROBLEM STATEMENT**

Over the past three decades researchers and scholars such as Astin (1993), Tinto (1993) and Pascarella and Terenzini (1991), as well as others, have contributed to the body of knowledge regarding students and academic success and persistence rates. However, research on the relationships between living learning communities and student success is still an
underrepresented area of study. While there has been some important research on the impact of living learning communities on participants, there is not a clear formula or model for identifying consistent variables that lead to academic success and persistence rates for students. Research supporting the benefits of participation in living learning communities is often weak quantitatively. Many studies are missing control variables which would assist in determining if the effects were due to actual participation in living learning communities, or to other internal and external variables.

PURPOSE OF STUDY

The purpose of this study was to explore the relationship between high school GPA, gender, ethnicity and type of residence for first-year and second-year students’ persistence rate and first and second year GPAs at the University of South Florida. Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community. Despite numerous research efforts into the impact of living learning communities on students, researchers are still trying to determine which specific models and variables are the most effective for increasing academic success and persistence rates (Astin, 1993; Tinto, 1993, 2003; Upcraft, Gardner, Barefoot & Associates, 2005).

RESEARCH QUESTIONS

This study was designed to answer the following research questions:

1. What is the relationship between high school GPA, type of residence for first-year and second-year students at the University of South Florida and academic success as measured by GPA? Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.
2. What is the relationship between the type of residence for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic learning community or 3) interest-based learning community.

3. What is the relationship between gender and residence type on persistence rates for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

4. What is the relationship between ethnicity and residence type on persistence rates for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

THEORETICAL FRAMEWORK

This study focused on two theories utilized to enhance academic success and persistence rate. First, Vincent Tinto’s (1993) Model of Institutional Departure states when students are able to integrate their formal and informal academic experiences with that of their formal and informal social community they are more committed to the institution and thus more likely to be
This model of Institutional Departure postulates that there are six components that must be part of a positive interaction between the student and the institution so that heighten intentions of completion and successful integration into the institution will occur. These components include: 1) individuals’ pre-college attribute, 2) goal/commitments, 3) institutional experiences, 4) integration of prior experiences, 5) institutional involvement and 6) outcomes (Tinto, 1993). It will be the successful integration of these six components that will result in higher levels of academic success and institutional persistence rates.

Students who are unable to successfully integrate these components into their college experience will have a higher probability of departure from the institution. The decision to persist or leave an institution is a progressive process where students become more, or less, committed based on the degree to which they feel integrated academically and socially (Purdie & Rosser, 2011). With the goal of curtailing student attrition, higher education administrators must focus on creating learning environments conducive to the integration of academic and social experiences. Some of the programs being implemented currently include, but are not limited to, the following: “...supplemental instruction, newer approaches to academic advising, new approaches to orientation, learning-centered residential programs, student support services that are specifically targeted to first-year students and expansion of student-learning opportunities for first-year students, and learning communities” (Upcraft, Gardner, Barefoot & Associates, 2005, p. 3).

The next theoretical model which framed this study was Alexander Astin’s theory of Student Involvement. This theory postulates that the level of academic success is a result of the quality and quantity of involvement participants have with the program. “An involved student is one who devotes considerable energy to academics, spends much time on campus, participates
actively in student organizations and activities, and interacts often with faculty” (Astin, 1999, p. 518). Similar to many student development theories, Astin’s theory was concerned with how community involvement impacted student learning and how this learning was directly related to persistence rates. Meyer (2004) stated “. . . the most important single factor influencing learning is what the learner already knows; ascertain this and teach him (her) accordingly” (p. 974). Other influencing factors include: “. . . race, gender, socioeconomic status and pre-college academic success” (Rowan-Kenyon, Soldner & Inkelas, 2007, p. 759). This statement conceptualizes the idea that prior knowledge is an intricate facet of the educational process.

Astin’s Input-Environment-Outcome (I-E-O) Model offers a way to understand how pre-college attributes ultimately influence the changes in a student’s cognitive abilities, critical thinking skills and perceptions (Astin, 1993). Astin’s model demonstrates the importance of examining student development at various stages throughout their exposure to new environmental factors. This examination of student development would occur at the time of entry, input; during a student’s exposure to a specific programming and/or service, for example, personal counseling, environment; exposure to experiences while attending college; and, finally a measurement of outcomes to be determined by the changes in student development after the involvement (Figure 1). To determine the success of a program, or educational experience and its influence on students, Astin’s model requires us to compare the students’ level of development as it relates to their involvement with the institution and its programs (Astin, 1993).
According to Astin (1985), “Students learn by becoming involved” (p. 133). This refers to the continuous investment of physical and psychological energy put forth by the student to succeed. The Inputs-Environment-Outcomes model demonstrates how students play an integral role in their success and persistence rates by their level of active involvement in courses, programming, social activities and faculty engagement inside and outside of the classroom. As such, it is the level and amount of institutional resources and faculty interaction as well as the institutional polices, which reflect the commitment to student involvement which is indispensable for student success (Huntley, 2008). Student development occurs on a passive level due to the level and type of involvement with faculty and university programs. This involvement is a critical element for student success and must be purposefully incorporated into a learning community and the educational goals and mission of the institution.

**SIGNIFICANCE OF STUDY**

Today, institutions of higher education are finding that there is an ever increasing deficiency in the student educational experience and preparedness of today’s students. In short, there is a decrease in student academic preparedness, levels of involvement, interaction with
faculty members and peers, as well as commitment to the institution. Each of these variables contributes to the quality and educational experience for students. As such, it has become imperative for institutions to develop new and effective pedagogical models to assist in the creation of an educational experience which will assist students’ in becoming not only lifelong learners, but adults who are ready to address the challenges of an ever changing global community.

Living learning communities can offer an opportunity for students to share academic interests, increase socialization and experience deeper levels of residential and institutional satisfaction. All of these factors contribute to the overall educational and personal experience of participants. However, there are often significant differences between the types and effectiveness of different living learning communities. This is often due to the type and availability of faculty involvement, institutional resources, integrated curriculum and academic support. It is because of these differences and discrepancies that additional research is needed to assist in the creation of a standardized model which may be used by different types of institutions within a variety of academic and residential settings. It was the goal of this investigation to provide additional data to help formulate a theoretical model to understand the impact different 1) traditional, 2) academic-based and 3) interest-based residential communities might have on the academic success and persistence rates for first-year and second-year students.

RESEARCH DESIGN

This quantitative study explored the relationship between the independent variables of gender, ethnicity and types of residences and dependent variables of high school GPA (HSGPA), academic success and persistence rates among first-year and second-year students at the University of South Florida.
These residential community options included traditional style, academic-based and interest-based living learning communities. Secondary data were gathered with the assistance of the Office of Decision Support, the Office of Housing and Residential Education and the Office of Student Affairs Planning, Evaluation and Assessment at the University of South Florida. The use of secondary data for this study was purposely selected due to the large probability sample size and measurement validity. The use of this archival secondary data will assist in developing comparative studies when analyzing future trends in residential communities on the campus of the University of South Florida.

In this research investigation, the researcher did not manipulate any of the independent variables in an attempt to alter, or adjust, the outcome. To answer the research questions proposed in this study, a quantitative ex-post facto research design was used to determine if there were statistically significant differences and/or relationships in the various research questions. Such research is referred to as ex post facto (Latin for “after the fact”) since both the effect and the alleged cause have already occurred and must be studied in retrospect. This resulted in a casual comparative research design for this study.

OPERATIONAL DEFINITION OF TERMS

Academic success: A measure of a student's academic success at a college or university; calculated by dividing the total number of grade points received by the total number of credit hours attempted. This study followed the grade point scale utilized at the University of South Florida which ranges from 0 to 4.0.

Apartment-style residence hall: Residential community consisting of 4 person apartments each containing 4 single bedrooms, 2 bathrooms, living room and kitchen area.
**First time in college student (FTIC):** A student enrolled in his/her first year as a degree seeking student.

**High school grade point average:** A measure of a student's academic success at the high school level; calculated by dividing the total number of grade points received by the total number of credit hours attempted. This study followed the grade point scale typically used by most school districts which ranges from 0 to 4.0.

**Learning communities:** Have been defined as learning environments which are comprised of undergraduate courses tied to a central theme providing opportunities for deeper understanding and integration with one another and exclude a residential component.

**Living learning community:** The concept of the living learning community starts with a cohort of students that are linked together by specific courses or interests focusing on an overall theme. These learning programs are specifically tied to a residential component and incorporate a collaborative relationship between faculty, staff and students.

1. **Academic-based living learning community:** For the purposes of this study, an academic living learning community was defined as a residential educational cohort that is structured on the foundation of a specific academic theme or method and is intended to integrate academic learning and community living. For example, the Bull Business living community, at the University of South Florida, focuses on students who have declared an early intent to major in business. This residential community provided additional learning opportunities involving innovative programs specific to business education, advising, peer mentoring, study abroad options and faculty access.

2. **Interest-based living learning community:** For the purposes of this study, an interest-based living learning community is defined as a residential cohort that is organized on
the basis of a non-academic theme or approach. It is intended to integrate specific interest-based experiences with community living. For example, part of the University of South Florida’s Sustainability Initiative (2011) states “… to reduce the campus carbon footprint and improve campus sustainability efforts, the USF’s Green Living and Learning Community is focused on providing students with the opportunity to work with each other, with faculty members and with administrators on a variety of campus green projects. In addition, students will have special programming focused on developing their interests in sustainability and green living”.

Persistence rates: Persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities in the Fall of 2012.

Residence hall: Any on-campus living facility in which rent is paid to the university in exchange for living quarters.

Second-year student: A student enrolled in his/her second year as a degree seeking student.

Suite-style residence hall: Residential communities where four students share two double occupancy bedrooms with bathroom facilities located between the rooms.

Traditional-style residence community: Residential communities with double-loaded corridors, community bathrooms and double occupancy rooms.

DELIMITATIONS

The following delimitations were identified in this study. This investigation focused on only one institution of higher education, The University of South Florida. The study was limited to students at the University of South Florida living on campus that began as FTIC students, who
first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities.

LIMITATIONS

As with most research studies, questions regarding the validity of data collection and interpretation of data results must be addressed. McMillian and Schumacher (2010) have identified several threats to external and internal validity in research studies. External validity refers to the extent in which results may be generalized to other people, times and contexts. Internal validity occurs when it can be concluded that there is a causal relationship between the variables being studied. There were four primary variables which may have impacted the outcomes in this research study: 1) utilization of grades as measures of success, 2) use of secondary data, 3) population validity and the allocation of departmental and 4) institutional resources.

The predominant indicator for predicting academic success, persistence and time towards degree completion for most institutions is grade performance. Pascarella and Terenzini (2005) stated that grades are “. . . hardly a perfect measure of learning and intellectual development” (p. 396). Grades tend to compare student’s performance rather than specific intellectual gains, or critical thinking skills. In addition, grading standards, testing and individual instructor bias can result in large discrepancies in grading scales and grade point averages, not only within academic departments but across institutions as well. According to Astin (1993) grades “. . . reflect only how the student is performing relative to other students at a given point in time, not necessarily what has been learned” (p. 187). This study followed the grade point scale utilized at the University of South Florida which ranged from 0 to 4.0.
Secondary data are data that have already been collected by some other organization, group, or individual at some prior time, and is referred to as secondary data analysis (McMillan & Schumacher, 2010). The use of secondary data analysis for this study was used due to the large probability sample size and measurement validity. There are significant benefits to using secondary data “. . . time efficiency, cost effectiveness, data quality, increased sample size, and lack of need to obtain institutional review board (IRB) approval” (McMillian & Schumacher, 2010, p. 242). The use of secondary data will assist in developing comparative studies when analyzing future trends in residential communities on the main campus of the University of South Florida.

Population validity is a threat to external validity and refers to “. . . the extent to which the results of a study can be generalized from the sample that participated in it to a particular population” (Gall, Gall & Borg, 2006, p. 633). This study was conducted at the University of South Florida, a large urban research institution located in Tampa Florida. Data were obtained from first-year and second-year students residing in unique traditional style, academic and interested-based living learning communities found on the main campus of the University of South Florida. However, despite the limitations of the generalizability of this study, the data collected may still contribute to the body of knowledge regarding student academic success and persistence rates of due to participation in living learning communities.

Finally, there were no controls over the departmental and institutional resources given to each residential community. Despite the goal of a seamless learning environment between academic and student affairs the amount of financial and personnel resources were not addressed, or assessed. Each residential community in this study had their own specific faculty, or staff, advisor whose responsibility was to create in-class and out-of-class educational opportunities to
enhance academic success and persistence rates among community members. This study did not address or evaluate the effectiveness of departmental or institutional resources as influencing variables. Other departmental and institutional factors which were not controlled for included: 1) difficulty of academic courses, 2) interests and participation levels in residential communities and 3) varying support from respective academic or administrative units. These may be areas in which researchers might seek to control in future investigations.

**ORGANIZATION OF REMAINING CHAPTERS**

Chapter Two provides an overview of the relevant literature on the benefits of residential communities. First, a brief historical account on the development of residential and living learning communities will be reviewed. Second, an overview of studies regarding the impact of learning communities on academic success will be explored. Third, the review will investigate the benefits of living learning communities on persistence rates of first-time students. Next, an examination of the impact that these living communities have on the academic success and persistence rates on individuals based on gender and ethnicity will be conducted. Finally, the literature review will conclude with an analysis of some of the challenges and barriers facing living learning initiatives.

Chapter Three includes the context, methodology and description of the instruments used in this research investigation. This chapter includes a description of the institution being investigated, population under investigation and a description of the data analysis procedures. Chapter Four presents the findings of this research investigation. Chapter Five includes the discussion of research results and recommendations for future research.
RESEARCHER SUBJECTIVITY

The researcher and primary investigator for this study has been actively engaged in the field of student affairs for over 22 years. His professional experiences are specific to residential life and housing and include multiple private religious affiliated institutions and public universities. He has presented numerous programs nationally on the impact of residential communities on student success, including the benefits of living learning communities. During his tenure as a Director of Residential Living and Housing, he has worked closely with various institutional constituents on the development and implementation of living learning communities, both academic and interest-based.

The researcher’s professional experiences in the design and implementation of living learning communities over the course of his career have undoubtedly impacted his bias on the perceived outcomes derived from participation in these communities. However, he acknowledges that these perceptions have yet to be confirmed unequivocally through any empirical analysis. The researcher’s assumptions regarding any relationship between living learning communities and student success on participants are derived solely from his professional interaction with residential communities over the last 22 years.

Familiarity with residential communities and residential students has assisted this researcher in understanding the unique needs of these participants. This study was conducted to better explore and define those characteristics and variables which lead to greater academic success and higher persistence rates. These characteristics and variables were examined under two conceptual frameworks of engagement, Tinto’s model of Institutional Departure and Astin’s theory of Student Involvement. Results from this investigation will provide additional data
regarding any relationships between living learning communities and student success on first-year and second-year students at the University of South Florida.
CHAPTER TWO
REVIEW OF LITERATURE

This review of literature begins with an historical summary of the development of residential communities in the United States. Next, a description and examination of the concepts of living learning communities will be reviewed. Afterwards, the different types of living learning communities typically found in higher education will be outlined. This review will examine the impact living learning communities have on academic success and persistence rates of first-year and second-year residential students. The literature will be analyzed utilizing the conceptual theory of institutional departure by Vincent Tinto (1993) and Alexander Astin’s theory of student involvement (1993). Finally, this chapter concludes with a discussion regarding the challenges of implementing living learning communities.

HISTORY OF RESIDENTIAL COMMUNITIES

Residence halls within educational institutions have been around, in one form or another, for approximately 700 years. It wasn’t until around the 1500s that Oxford and Cambridge integrated the residential component into the educational experience. Following the English residential system, the American Colonial model provided shelter and housing for both students and faculty under one roof. The initial concept of this type of residential model was to provide an idyllic learning community where young boys could be turned into men. The goal of this living community was to provide an atmosphere where “... it was possible for young men to talk deep into the night about deep matters” (Rudolph, 1990, p. 96). However, instead of faculty being
active participants in the development of their students they “...functioned as spies, policeman, and judges” (Rudolph, 1990, p. 104). As a result, instead of asking the question what can we teach them it became a question of how was the student to be controlled?

In the earlier part of the 20th century, Alexander Meiklejohn and the Experimental College at the University of Wisconsin (1927-1932) revealed how living learning communities might enhance the learning experience for students (Rudolph, 1990; Tinto, 2003). It was believed that it was vital for faculty and students to develop a collaborative living and learning environment where all parties could engage in common academic pursuits which would result in a truly holistic educational experience. Faculty and students were housed together and studied a prescribed curriculum which incorporated “...the study of two or more civilizations, including an ancient and modern” (Meiklejohn, 2001, p. 40). These specific courses included Plato and contemporary U.S. society. It was here where faculty and students intentionally created learning communities that actively involved the creation of a shared learning process and a purposefully designed curriculum.

Similar to Astin’s I-E-O model, Meiklejohn believed the purpose of learning was not preparatory in nature but participatory “...living requires experiential learning-by-doing, and this approach uses students’ background experiences as beginning points” (Talburt & Boyles, 2005, p. 213). As such, students were expected to be active participants in their learning process, however there were limitations. Contrary to today’s living learning models, Meiklejohn’s curriculum did not allow for excessive freedoms when determining the areas of study by the students. He thought that this “...reflected a lack of vision on the part of the faculty and an abandonment of their responsibility” (Gabelnick, MacGregor, Matthews & Smith, 1990, p. 11). Students were involved in their educational experience working and learning with their
communities and sharing thoughts and ideas with faculty. However, it was the responsibility of the faculty to set specific curriculum for the students to prepare them for their roles as contributing members of society. Though short lived over a period of six years this curriculum provided the foundation in which many of today’s living learning communities are founded upon.

It was during his time at the Experimental College at the University of Wisconsin that Alexander Meiklejohn implemented many of the innovative teaching strategies that are still used today by educators. Innovative strategies such as academic advising, team teaching, active learning approaches, student seminars and interactive classroom discussions are just a few approaches developed to create a truly integrated academic curriculum. “They would do this through a common required curriculum, paradoxically combined with a dramatically redefined teaching and learning environment that encouraged their capacities for freedom and responsible self-direction” (Smith, McGregor, Matthews & Gabelnick, 2004, p. 30). It was here that the concept of community and learning as an integrated philosophy for education was born.

The next three decades brought about a dramatic increase in residential students to college campuses. With the introduction of the Serviceman’s Readjustment Act of 1944, the passage of Title IV of the Housing Act in 1954 and the Civil Rights Act of 1965 legislation would for the first time in history provide access to college campuses for hundreds of thousands of students and their families (McClellan, Stringer & Associates, 2009, p. 11). With increases in federal and state funding American campuses experienced an unprecedented transformation. Residential communities became a priority for the continued growth of college campuses. Little thought was given to actually creating learning communities; priority was giving to constructing residential facilities for the ever increasing number of students who wanted to reside on
campuses. As the number of students residing on campuses increased administrators began to recognize the personal and academic problems associated with larger residential communities. The archaic concept of dormitories, where you just ate and slept, gave way to residential communities, where students lived and learned among their peers and faculty members (Rudolph, 1990).

Due in part to these changes within the American higher education system, the field of student affairs grew and developed to “. . . join business affairs and academic affairs as a major division of college and university life” (Barr, Desler & Associates, 2000, p. 17). In this role, residential life found itself working hand in hand with all areas of the campus community to create a blueprint for the establishment of living learning communities. The in-classroom and out-of-classroom educational opportunities and activities forced student affairs to “. . . transcend the trend toward specialized administrative functions and redefined the profession grounded in a concern for the ‘the whole student’ and in a growing body of theory and research on student development. They proactively defend themselves as equal partners with faculty in educating students” (Chickering & Reisser, 1993, p. 277). It was the goal of this collaborative effort to develop a seamless learning environment which addressed an enhanced educational experience, higher levels of retention within the residential community and stronger persistence rates within the institution.

It was during the 1980s that student preferences and expectations began to influence the design and construction of the residence halls themselves. The small overcrowded rooms with few amenities became unacceptable and would no longer fit the needs of contemporary students. In most cases, institutions took into consideration not only the creature comforts of the students, but created specific marketing campaigns to create that “seamless” relationship between
students, faculty and student affairs. This involved developing residential communities which were competitive to the increasing number of privatized housing units. The amenities being offered at present on college campuses are a far cry from what previous generations of college students experienced. Some of these amenities found today may include: fitness centers, dining facilities, classrooms, computer labs, faculty office spaces and faculty-in-residency apartments. Today’s technically savvy students expect instant gratification and most importantly are accustomed to instant service and satisfaction. Universities must cater to student’s social and intellectual needs if they hope to attract them as customers and future alumni.

It wasn’t until the 1980s and 1990s, according to Tinto (2003), that a series of reports by the National Institute of Education and the Association of American Colleges inspired institutions to reevaluate their current educational outcomes and classroom structures. Specifically, these reports showed the value of student involvement in their own learning process. Additional studies by Astin, Boyer and Tinto (Tinto, 2003) further elaborated on the growing numbers of institutions who were investigating ways to increase student interaction and involvement through learning communities “. . . learning communities seek to restructure the very classrooms in which students finds themselves and alter the ways students experience both the curriculum and the learning within those classrooms” (p. 1). It is because of these learning initiatives, and the collaborative pedagogic theories that underlie them, that we have experienced the surge of living learning communities currently taking place in higher education.

RETENTION AND INVOLVEMENT THEORIES

“For the most part institutions do not take student retention seriously” (Tinto, 2009, p. 1). Like so many other issues found on college campuses, problems are identified, committees are formed, time and resources are assigned to address what are perceived to be problems and issues,
and as a result little to no permanent change occurs. Instead, institutions should be addressing the concept of retention as it applies to all students, not just a select few. Nevertheless, we do need a starting point and the first critical year is an instrumental focal point for new students when making their decisions to stay or leave an institution. According to the 2010 ACT survey, first-year attrition rates at participating four-year institutions were approximately 74%. Typically “. . . 15 to 25 percent of institutional departure arises because of academic failure” (Tinto, 1993, p. 82). It is for this reason that higher education should continue to allocate a tremendous amount of time and resources to address the issue of attrition?

Retention and involvement theories stress the importance of pre-college attributes and characteristics. Unfortunately, for the most part, institutions have little control over these factors. Institutions do, however, have substantial control over the types of living learning communities and the collaborative pedagogies that underline them. Tinto wrote (1993) “The point of retention efforts is not merely that individuals be kept in college. Education, the social and intellectual development of individuals, rather than just their continued presence on campus should be the goal of retention efforts” (p. 145). The following section in this literature review examines the relevant theories related to student involvement and institutional persistence rates. The most prominent theories in higher education today include: Tinto’s Model of Institutional Departure and Astin’s Theory of Student Involvement.

**Tinto’s Model of Institutional Departure**

Tinto’s Model of Institutional Departure (Figure 2) states that “. . . to persist, students need integration into formal (academic performance) and informal (faculty/staff interactions) academic systems and formal (extracurricular activities) and informal (peer-group interactions) social systems” (Tinto, 1993). This model theorizes that as students becoming more socially and
academically involved in their educational experience, the greater the odds that they will be retained. When students enter college they bring with them certain pre-college attributes and characteristics that influence the quality and quantity of their interaction within the institution. It will be these pre-college attributes and characteristics which will determine the level of involvement and persistence rates. These pre-college attributes consists of the student’s background measured by “. . . social status, parental education, and size of community” (Tinto, p. 115). Tinto (1993) contends that these attributes are vital in creating a successful transition from the time a student enters the institution to the time they leave. Each of these pre-college variables impacts the individual’s intentions and the level of commitment to the institution.

![Tinto's Model of Institutional Departure](image)


**Figure 2.** Tinto’s Model of Institutional Departure (Tinto, 1993).

This model is actually a longitudinal process of interactions, according to Tinto (1993), between the individual who possesses the aforementioned pre-college attributes and the
academic and social systems of the institution. Based upon student's interaction within the institutional system, both academically and socially, these experiences will set the foundation for the levels of integration and involvement. Positive experiences and a successful integration of pre-college attributes will lead to increased motivation to succeed academically and socially. The opposite occurs when an individual experiences adverse interactions within the institutional system. As the individual encounters negative academic and social situations the desire to succeed is diminished and the aspiration to remove one’s self from the intimidating environment intensifies. “The interactive character of the model serves to highlight the important dynamic interplay between the social and intellectual components of student life. Both play a role, albeit different, in the process of student persistence” (Tinto, 1993, p. 120). This model demonstrates the relationships between the academic and social systems that impact the student’s decision to remain, or depart, from the institution.

An interesting point to consider regarding institutional departure is in terms of the student’s commitment to the institution and how it is impacted by pre-college attributes, as well as external commitments. Each of these pre-college attributes and external commitments, according to Tinto (1993), can have an indirect influence on the decision to depart from the institution by impacting “. . . the continuing formulation of individual intentions and commitments regarding future educational activities” (p. 115). It is important to take into consideration the strength of an individual’s external commitments, such as family or work. These external commitments can have a major influence on the academic and social integration of the individual within the learning system. Even when student experiences have been positive they may still make the decision to remove themselves from the institution. Increases in external commitments can be directly related to decreases in academic and social commitments. When a
higher level of institutional commitment is demonstrated it can be related to higher academic success and positive social integration. This in turn will result in a higher rate in degree completion and institutional persistence rates. External commitments such as family, employment and personal interests should be taken into consideration by administrators as strategies for student success. Creating family connections to the institution through newsletters or parent groups is an invaluable way to assist the student in maintaining involvement and commitment.

It is the positive integration and heightened involvement within the institution, both academically and socially, which will lead to an increased sense of commitment and desire to succeed. Tinto (1993) stated that “positive integration serves to raise one’s goals and strengthen one’s commitments both to those goals and to the institution within which they may be attained” (p. 116), while on the other hand, Tinto’s model also postulates “. . . that, the lower the degree of one’s social and intellectual integration into the academic and social communities of the college, the greater the likelihood of departure” (p. 116). While the explanations of student persistence rates may vary, one important viewpoint stands firm, institutions must carefully consider all facets of the individual they are considering for admittance and create a collegiate environment that is conducive to student persistence rates (Upcraft, Gardner, Barefoot & Associates, 2005).

Astin’s Theory of Student Involvement

Astin (1999) described student involvement as “. . . the amount of physical and psychological energy that the student devotes to the academic experience” (p. 518). Astin believed that the link between student involvement and learning outcomes was based on the active participation of the individual. He also believed that it is the level of student learning and personal development which is directly proportionate to the quality and quantity of student
involvement. In other words, ‘the more an individual puts into being an active participant, the more they will get out of it’. An involved student “. . . spends much time on campus, participates actively in student organizations and activities, and interacts often with faculty” (Astin, 1984, p. 292). The student plays an essential role in determining their level of academic and social involvement within the institution. It is this quality and quantity of involvement which plays a substantial role in student success and persistence rates. As such, the greater the quality and quantity of institutional support the greater the levels of student learning and personal development.

As with Tinto’s model, commitment plays a significant role in the level of student involvement. The level of involvement is seen as an investment that is based on the individual’s level of interest, personal goals and institutional commitment. Astin (1999) felt educators should focus less on course content, but instead focus on how to motivate students so that they will devote more time and energy to their own learning process. The goal after all is to maximize the amount of time and energy students are dedicating in becoming active participants in their own educational process. “The single most potent source of influence on the undergraduate student's academic and personal development is the peer group” (Astin, 1993, p. 398). As part of their own educational process students must be held accountable by their peers for involvement and sharing knowledge. They must assume responsibility for one another to ensure that the community is successful and striving for optimal cognitive and affective development.

It is interesting to note that the involvement theory focuses more on the motivation and the behavioral processes of “how students learn” rather than “what students learn”. Because time and energy are finite institutions should consider how policies, procedures and personnel assignments will impact the levels of student involvement (Wilmer, 2009). Astin’s theories of
involvement are similar in many ways to student development. He states “. . . rather than posing ideas related to the level of development that a student achieves, educators should focus on how that student develops and the effect on long-term retention” (Wilmer, 2009, p. 55). This approach is utilized in many residential programs when designing and implementing living learning communities because of the increased levels of involvement between student-faculty and student-student which positively affects learning and persistence rates.

The success of any institutional policy, practice or curriculum is directly associated to their ability to increase the level of student involvement and persistence rates. In Astin’s follow-up study, Four Critical Years Revisited (1993), he identified several types of involvement which can be directly related to academic success and persistence rates for students. The first type of involvement was identified as Place of Residence (p. 366). Those students who made the decision to leave home and reside in a residential community had a greater level of satisfaction with campus life. Personal growth was reported in the following areas: cultural awareness, leadership skills, interpersonal skills and job skills. The direct impact that Astin (1993) found included higher rates towards graduation, higher levels of faculty satisfaction and greater retention rates. These students also showed gains in artistic interests, liberalism and interpersonal self-esteem (Astin, 1999).

Involvement with student peers was the second type of institutional involvement identified by Astin (1993). This variable is also the strongest contributing factor to student success and institutional persistence rates among any other type of relationship involvement identified. These relationships between student-student had a “. . . positive correlation with leadership, public speaking, interpersonal skills, academic development, knowledge of the field, analytical and problem solving skills and critical thinking skills” (Astin, 1993, p. 385). In
addition, this type of involvement, according to Astin (1993), resulted in greater levels of satisfaction with campus life, faculty and staff, and the institution in general, with the exception of facilities. One of the reasons for this may be the level of expectations students have when comparing antiquated structures and facilities to their own personal experience when living at home. Residential halls, dining facilities and classrooms are typically areas where students feel institutions need to provide additional resources for modernization.

The third type of involvement Astin (1993) focused on was financial aid and how the impact of institutional grants influenced student development and the student’s perceived self-worth as a recipient of financial awards (p. 367). Need-based aid impacted student’s self-perceptions negatively and resulted in adverse consequences in their academic success and persistence rates. Those students who received grants or scholarships based on their own merit saw this as a positive recognition of their abilities and skills. This resulted in positive feelings about their abilities, skills and their connection to the institution. The institution recognized the student’s value to the community and as a result the student wanted to contribute back to the institution. Time allocation was the fourth type of institutional involvement where the amount of academic participation, such as homework, was shown to have a positive correlation with student outcomes. These outcomes directly impacted academic outcomes, retention, time to degree completion and students self-reported perceived “... increases in cognitive and affective skills” (p. 376). As students put forth the effort their personal investment continued to increase and bound them to the institution.

Next, the fifth type of involvement Astin identified were courses taken. Data on self-reported growth indicated that those students who were involved with courses that emphasized
“... strong writing skills reported high scores in general knowledge, critical thinking, public speaking, and Overall Academic Development” (p. 377). Involvement with faculty members was the sixth and final type of interaction identified by Astin (1993). Student-oriented faculty members, and related increases in satisfaction, had a substantial positive correlation with the “... perceived quality of instruction, academic attainment, college GPA, time to degree completion and institutional persistence” as stated in Four Critical Years Revisited by Astin (1993, p. 383). Students felt when faculty members generally cared about them as individuals, and their potential, there were stronger aspirations to become more active in their own learning process. This in turn influenced the amount of time students put into courses resulting in stronger connections to the institution. This trickle down process eventually led to higher academic success and institutional persistence rates.

“The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program” (Astin, 1999, p. 519). This statement reiterates how the level of student involvement can positively influence a student’s intellectual and affective development. Based on these findings it would be in the best interest for faculty to create strategic plans which purposefully identified key areas within the institution where they may increase levels of faculty-student, student-student and student-institution involvement. While technology can be a cost saving measure in the short-term, the opportunities for human interaction are far more valuable in terms of student involvement and success.

**Astin’s Inputs-Environment-Outcome (I-E-O) Model**

Similar to Tinto’s pre-college attributes, Astin believed “... that students come to college with certain characteristics and qualities which impact their level of commitment to the
educational experience” (Upcraft, Gardner, Barefoot & Associates, 2005, p. 31). Based upon Astin’s 1993 study, Four Critical Years Revisited, college outcomes are based on three different sets of elements: Inputs, Environment and Outcome (I-E-O), (see Figure 1). This model demonstrates how students are passively developed by their interaction with faculty members, university programs and activities. The first element, inputs, includes demographics that students bring with them to college (Astin, 1993; Pascarella & Terenzini, 2005). This would include characteristics, or pre-college attributes, such family backgrounds, academic, gender, reasons for attending college, income and social experiences.

The next element, environment, are those variables that a student experiences while attending college. These elements are not strictly restricted to on campus influences, but can include external variables as well. Environmental elements include extra-curricular activities, institutional policies and procedures, culture of the campus community, faculty/staff interaction, curricula, facilities, peers/roommates and participation in clubs, organizations and teams. It is vital for institutions to consider carefully the development and structure of these campus internal and external variables when creating educational and social opportunities conducive to the experience of the residential student.

Finally, outcomes refer to the growth that takes place within the student from the time they enter, to the time they depart, the institutions. These elements include “... knowledge skills, attitudes, values and beliefs” (Pascarella & Terenzini, 2005, p. 53). Astin’s (1993) model outlines how “... students learn by becoming involved” (Astin, 1985, p. 133). Using the I-E-O model, administrators can analyze how institutional policies and practices influence, indirectly and directly, the environmental factors that may contribute to the academic and social development of the student. Knowing student’s demographics and by creating environments and
experiences conducive to specific educational strategies and outcomes educators will be able to map out a course of action which will guide the student towards specific learning objectives.

Figure 3 outlines the major characteristics described in the 2007 National Study of Living-Learning Programs (NSLLP). The survey instrument outlined several baseline characteristics founded in Astin’s (1993) Input-Environment-Outcome model. The survey determined that these characteristics were common variables in developing successful strategies in creating programs and activities for residential students. It is important for educators to be aware of these variables and how they may impact student involvement when developing educational opportunities and learning outcomes both in and outside of the classroom.

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<th>Inputs</th>
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<td>achievement</td>
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<td>• Pre-college</td>
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<td>assessment of</td>
<td>• Study group interactions</td>
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<td>self-confidence</td>
<td>influences on program participation</td>
<td>• Drop-out risk</td>
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Figure 3. Major Constructs of the 2007 NSLLP Baseline Survey Instrument Input-Environment-Outcome Model (Astin, 1993)

Pascarella and Terenzini (2005) further expounded on Astin’s I-E-O model regarding the importance of the psychological and physical investment put forth by the student. The student must take advantage of educational and social opportunities so that they may be exposed to new
ideas, people, skills and experiences if they wish to develop. It will be the quality of the experiences and the extent to which the students are actively involved that will determine the level of learning outcomes and success. Astin’s (1993) empirical study of his model at the Higher Education Research Institute (University of California, Los Angeles) found that student-student interaction was one of the single most important elements in creating environments conducive to academic success, campus integration and student persistence rates. Astin (1993) stated that “. . . the student’s peer group is the single most potent source of influence on growth and development during the undergraduate years” (p. 398). Institutions must consider this important variable when creating the environmental structure for activities, programs and even housing assignments. The peer group will be instrumental in establishing acceptable levels of participation and accountability academically and socially. These groups when mentored correctly will even develop academic and social traditions which will in turn strengthen future participation.

LIVING LEARNING COMMUNITIES

A learning community is defined as a type of block scheduling with the same group of students enrolled together in two or more courses consisting typically of approximately 25-30 students. Learning communities allow for the restructuring of curricular material allowing for a deeper understanding and the integration of in-classroom and out-of-classroom educational and social experiences. When learning communities and residential communities are merged, a living learning community is formed (Barefoot, 2000; Tinto, 1999). The concept of a living learning community allows students to become collaborative partners in their learning experience and introduces them to a more holistic and integrated learning experience (Astin, 1993, 1999; Cross, 1998; Tinto, 2009). The combination of academic and social educational components increases
the level of collaboration between students, faculty members and staff influencing the levels of academic success and persistence rates.

The National Survey of Efforts to Improve Undergraduate Student Success and Retention (John N. Gardner Institute for Excellence in Undergraduate Education, 2011) reported that 90% of participating institutions have implemented some form of learning community program, 56% of these programs were connected to residential living programs and 52% have a common intellectual theme. While there is not a complete census of living learning communities the Residential Learning Communities International Clearinghouse estimates that there are over 200 programs on 73 campuses (Inkelas, et al., 2008). As of 2012, The Learning Communities National Resources Center (Washington Center for Improving the Quality of Undergraduate Education) have 300 registered learning communities listed for both two and four-year institutions throughout the United States. According to Stassen (2003) living learning communities participants “. . . show greater institutional commitment, greater intellectual development, and greater tolerance for differences, demonstrated higher persistence and academic performance” (p. 583). This increase in the development of living learning programs can be attributed to the current demand for accountability in undergraduate education, the deficiencies in the levels of academic preparedness by students and substantial changes in the globalization of the workforce. It is no wonder that learning communities are being utilized as important retention tools to address the complex needs and deficiencies of college students (Zhao & Kuh, 2004).

Over the last three decades living learning communities have become an intricate part of higher education. While their focus, size and program structure may vary, living learning communities may now be found in most types of institutions including; research universities,
community colleges and liberal arts colleges (Smith, Eby, Jeffers, et al., 2006). Part of the reason that living learning communities have flourished so well in recent years is due to their adaptability, affordability and their potential to address institutional concerns such as engagement, student persistence rates and academic success. While many programs are successful, many programs fail to achieve their true potential as living learning communities. These institutional initiatives must be a priority if financial and human resources are going to be focused in the implementation of these communities. To make sure these initiatives take priority it is important that all members of the institution are included in the planning and implementation of these programs. There must be a clear understanding of the philosophy and goals behind the development of these initiatives if they are going to receive proper funding and long-term support.

Living learning communities seek to purposefully restructure classroom curriculum to intentionally create an environment where students are more actively involved in their own learning process. To achieve these goals, educators must create living learning communities that enable students to take classes together and are conducive to the development of academic success and higher institutional persistence rates (Brower & Dettinger, 1998; Cross, 1998; Edwards & McKelfresh, 2002; Smith, Eby, Jeffers, et al., 2006; Tinto, 2003). The courses in which students are engaged are not random, but are organized around specific themes. The objective is to create a coherent interdisciplinary or cross-subject learning experience that is not available through stand-alone courses (Tinto, 1998). The emphasis for living learning community initiatives is to assist students in transitioning to college life, assisting these students academically and improving persistence rates. Living learning communities do more than just register students around a specific academic or interest-based theme. They actually change the
students’ educational curriculum and the way in which it is taught. “In this way, students are asked to share not only the experiences of the curriculum, but also of learning within the curriculum” (Tinto, 2003, p. 2). It requires the participants to assume personal responsibility not only for their involvement, but for that of their classroom and community.

All learning communities are purposely designed to do the following: 1) create an environment where all participants are identified as contributing members; 2) provide physical space for members to interact in transformative learning activities; 3) create an environment conducive to new membership; 4) develop a seamless learning experience between academics and out of classroom activities; 5) build bridges between different disciplines and 6) allow for opportunities for developing complex thinking skills, social cognition and creativity (Brower & Dettinger, 1998; Inkelas et al., 2006). While living learning communities share many commonalities with curricular learning communities there is one significant difference. Curricular learning communities integrate classroom experiences through courses and team teaching; they do not possess the residential component found in living learning community models (Inkelas, Zeller Murphy, et al., 2006).

Research is well documented regarding the positive impact of residential learning communities on student involvement (Astin, 1973, 1993; Barefoot & Koch, 2011; Blimling, 1999; Edwards & McKelfresh, 2002; Johnson & Romanoff, 1999; Pascarella & Terenzini, 2005; Pascarella, Terenzini & Blimling, 1994; Tinto, 2003). Research consistently demonstrates that students who were active participants in living learning communities were more likely: “. . . (a) to be more involved with campus activities and interact with faculty, (b) show greater gains in critical thinking skills, (c) utilize campus resources to a greater extent and (d) to report their communities to be more academically and socially supportive” (Inkelas & Weisman, 2003, p.
These positive results occur even when other factors were taken into consideration such as: “. . . gender, ethnicity, and previous academic performance . . .” (Edwards & McKelfresh, 2002 p. 396). The one factor that can be agreed upon is that student outcomes were related to the amount of physical effort and psychological energy put into participation, reinforcing Astin’s Theory of Student Involvement (Astin, 1999).

Learning communities come in many forms and there is not one prescribed model or approach which is overwhelming more effective. “The goals of living learning programs are to foster a community of learners and help students develop smaller communities within the larger whole” (Inkelas, et al., 2006, p. 116). Successful integration of a learning community will depend on institutional policies, procedures, environment, curriculum and dedication of the faculty, staff and students. The goal is to create an educational environment which enhances the learning experiences of participants and contributes to a stronger more energetic campus community (Shapiro & Levine, 1999). There are four distinct types of learning communities (Figure 4): 1) clustered courses link individually taught courses through cohort and block scheduling; 2) first-year interest groups (FIGs) are interest groups guided by an instructor who synthesizes what is being taught; 3) linked courses, are programs which links students with two common courses which are typically content-based and the other application course and 4) coordinated studies incorporate faculty and students participating in full-time active learning based on an interdisciplinary theme (Shapiro & Levine, 1999).
Cluster Courses

Cluster courses involve two or three classes that are based on a theme. To a degree faculty and staff cooperate together to work from common syllabi and utilize team teaching techniques. In most cases these cluster courses have a seminar component where students meet to discuss their coursework and shared experiences. Western Michigan University has several examples of cluster courses “... Human Nature (Introduction to Biomedical Sciences, Thought and Writing, and General Psychology) and Thought and Politics (Thought and Writing, Principles of Sociology, and Introduction to Political Science)” (Kellogg, 1999, p. 3).

First-year Interest Groups (FIGs)

First-year Interest groups are linked around academic majors and include peer advising components. Students are able to work with community members and classmates to discuss issues they may be having adjusting to college life and shared coursework. Courses selected for
FIGs are often foundation courses such as writing and communication courses. Faculty members tend to play a lesser role in this community, but have the option to participate. Because of the benefits of being able to offer this program to large groups of students it is ideally suited for larger universities (Kellogg, 1999).

Linked Courses

Linked Courses provide a shared experience for students that focus on a content-based course such as science and math and an application based course such as writing or communication. Faculty may team teach or deliver courses independently and may coordinate syllabi and assignments.

Coordinated Studies

Coordinated Studies involve students taking several courses, or one large class that meets for several times a week. There is an interdisciplinary theme based model where full-time active learning occurs. Coordinated Studies are team taught by several faculty members in set blocks each week. This model is most closely tied to the Meiklejohn Model. “Evergreen State College uses the Coordinated Studies Model and has themes such as: Quests (credit is given for anthropology and developmental writing) and Reflections of Nature (credit is received in the visual arts, physics, biology, literature and computer science)” (Kellogg, 1999, p. 3).

RESIDENCE BASED PROGRAMMING

The Residence Based programming model offers several very unique, and important, characteristics not found in the other four learning models. Some examples of additional resources associated with residence based programs include: 1) faculty in residence; 2) in-hall academic advising; 3) increased faculty and peer interaction; 4) opportunities for coordinated learning activities and 5) an academically and socially supportive living environment “. . . thus,
living and learning are combined seamlessly in the students’ college experience” (Inkelas & Weisman, 2003, p. 335). As such, it is logical to assume that participation in a living learning community would naturally lead to increased levels of engagement and that students would exhibit higher outcomes when compared to their non-participating counterparts. However, non-participating members of a residential community can indirectly benefit from exposure to these living learning community variables. The positive involvement derived from programming, peer influence, specialized community support such as resident assistants and peer mentors can enhance the academic success and persistence rates of this group of students just from simple exposure as members of a residential community.

Pascarella, Terenzini and Blimling (1994) concluded that students who participated in residence based programs benefited greatly from their involvement. Members of these communities were more likely to “. . . persist, exhibit stronger academic success, interact with faculty, and engage in a more intellectual residence hall atmosphere than students in traditional residence halls” (p. 26). In addition, living learning communities demonstrated “. . . significant effects on students’ gains in autonomy and personal independence, intellectual dispositions and orientations, and generalized personal development” (1994, p. 26). Research by Inkelas, Vogt, Longerbeam, Owen and Johnson (2006) reported similar results for those students who were active in living learning communities. Participants of living learning communities demonstrated; greater involvement with student activities; increased faculty and staff interaction; greater academic success; utilized institutional resources at a higher rate; and reported greater residential community satisfaction when compared to non-participants. This is important data to ponder when considering the design and implementation of such programs. Practitioners must consider the increased involvement and higher utilization of institutional resources such as budgets,
physical space and the availability of faculty and staff in light of their already demanding institutional obligations.

**DESIGN AND IMPLEMENTATION**

Living learning initiatives have been defined using different labels, models and conceptual theories such as Astin’s (1993) student involvement theory, Tinto’s model of institutional departure and integration (1993) and Pascarella and Terenzini’s (2005) research on the impact of student engagement. Student engagement theory can trace its’ roots to the works of Astin (1973), Pascarella and Terenzini (1991) and Kuh, Kinzie, Schuh, Whitt, and Associates (2005). Although these researchers used different terminology, regarding the impact of involvement on student success, this foundation is the basis for many of today’s living learning models. “Engagement is positively associated with objective and subjective gains in general abilities and critical thinking” (Pike & Kuh, 2005, p. 186). Based on over 20 years of research on the impact of engagement by Pascarella and Terenzini proclaim “One of the most inescapable and unequivocal conclusions we can make is that the impact of college is largely determined by the individual’s quality of effort and level of involvement in both academic and non-academic activities” (Pascarella & Terenzini, 1991, p. 610). The question that must be asked is how do educators create living learning communities where participants want to be actively engaged and willing to put forth a higher level of effort than non-participants? In addition, how can they develop the unique bridges between the classroom setting and the residential environment which can foster these positive attributes among participating members?

A structured living learning community provides the institution with a framework for incorporating learning objectives in an effective holistic and integrated learning experience for participants (Cross, 1998). Before investigating the outcomes of living learning communities’
practitioners must first outline the expectations of their educational programs. A comprehensive model presented by Brower and Dettinger (1998) outlined some of the basic necessities for the construction of living learning communities. These necessities included an integration of academic subject matter and campus social interaction among participants. Within this physical environment participants were introduced to the concepts of “... professional, ethical and civic responsibility” (p. 16). In the development of such a community participants had to outline the intended goals, purposes and components of the program which will become the foundation of their community. This is a good example of how members must have a voice in the development, expectations and responsibilities of the community and its members. Without buy-in from administrators, faculty, staff and students a living learning community cannot hope to survive and flourish.

Brower and Dettinger (1998) stated that there are several common characteristics to all living learning communities which are very important to consider. First, participants must clearly set specific boundaries which differentiate members and non-members. The community must have a strong identity that is structured around specific goals and a mission statement. Members must consider, “goals, purposes, and program components” (p. 16) when analyzing a community’s mission statement and objectives. Students will select to participate in these communities because of their unique needs, mission and educational opportunities presented by the curriculum. These programs must avoid being seen as restrictive and elitist to potential members and must be defined by their mission statement, educational objectives and heightened connections to the institution.

Second, Brower and Dettinger (1989) emphasized that living learning communities must be able to accommodate all its members. Services, facilities, programs and social functions must
allow for maximum participation. The role of each member will vary as the environment evolves and as members commit to the ever changing dynamics of the community. These changing dynamics are due to the level of interests, faculty involvement and internal and external resources available. It will be important to embrace residential life in the planning phase due to their familiarity with residential planning, resource allocation, personnel and experience with strategic forecasting related to residential communities. This would also be an ideal opportunity for academics and residential life to collaborate on staffing decisions, possible faculty mentoring programs and financial implications.

Next, a seamless relationship between academic affairs and student affairs will permit students, to a varying degree, to bring their personal interests into their academic experience. This will allow students to bring the knowledge they have acquired in the classroom and merge it with their co-curricular activities (Brower & Dettenger, 1989). A collaborative partnership between academic and student affairs demonstrates the importance of such a program and reinforces the institution’s commitment to the participants and the community.

In order for a living learning community to truly impact the development of its members it must be intentionally linked to the institution’s core mission. “Through traditions, celebrations, collaborative efforts and purposeful recruitment will its members feel as if they are an intricate part of the institution” (Blimling, Whitt & Associates, 1999, p. 98). It will be through these lines of communication that faculty members and staff will develop a common language and learn the importance of this educational experience at all levels. This connection to the campus community will be vital in creating an understanding of the importance of the out-of-classroom educational experience, and the great demands placed upon those participating faculty and staff members. It is important however to recognize that living learning programs are conceptually
distinct from other types of institutional learning programs such as cluster courses, linked
courses and freshman interest groups, which lack the key components provided in a residential-
doing programming environment. Though these types of learning programs may be part of the
educational curricula, they are substantially different once the residential component is included.

Finally, assessment and evaluation are instrumental in the continuing success of any
living learning program. Each aspect of the community must be continually evaluated to insure
all participants are achieving appropriate services and striving for optimal success. As with any
growing entity living learning communities are continually changing and evolving. New
resources, faculty members, staff and students are constantly impacting the community and its
missions and goals.

ACADEMIC AND STUDENT AFFAIR PARTNERSHIP

American higher education was founded on the notion of developing the whole student.
During the American colonial period faculty members oversaw the development of student
intellect, character, and civic and religious leadership. With the emergence of the German model
(Kuh, Shedd & Whitt, 1987; Rudolph, 1990) in the 1890s, the purpose and role of faculty
members changed. Instead of working on the development of the whole student, faculty
members now focused on research, specialization and the development of the individual’s
intellect. Those tasks which did not contribute to the intellectual development of the student were
delegated to the student affairs area, and in most institutions include “... personal counseling,
academic advising, recreation, vocational guidance, and student discipline” (Kuh, Shedd &

Unfortunately, over time the increased detachment between the two divisions continued
to grow. Some of the difficulties between academic affairs and student affairs derived from a
lack of knowledge regarding one another’s area, financial competition for scarce institutional resources, territorialism and reporting structures (Shapiro & Levine, 1999). As a result barriers continued to separate the two divisions resulting in poor communication, suspicion, mistrust and sometimes disregard for one another as professionals. Student affairs developed a permanent position in higher education by emphasizing both the affective and intellectual development of students and the importance of involvement and learning outcomes. Today, this partnership is no longer a passing fad they are an organizational reality with hundreds of examples across all levels of higher education (McClellan, Stringer & Associates, 2009).

There are some obstacles to this collaborative enterprise that are important to bring forth when discussing this partnership between the two institutional divisions. One such area is in regards to the amount of time dedicated to helping students adjusting to college life rather than on the collaborative ingratiated curriculums associated with living learning communities. Upcraft, Gardner, Barefoot and Associates (2005) stated, an atmosphere similar to high school can develop and as a result the educational environment feels more like “13th grade” instead of college. Next, faculty may sometimes voice concerns regarding the amount of time required in preparing for the additional cross-disciplinary experiences between the classroom curriculum and out-of-classroom activities. Faculty members may request reduced course loads, additional team teaching support and supplementary resources to link together the in-classroom content with that of the out-of-classroom experience. Barefoot (2000) stated that this was especially true in larger research institutions. She found that faculty members at smaller schools tended to spend more time outside of the classroom with their students providing additional social and academic support. Faculty members at larger research universities were less willing to give up time for fear
of reducing their chances for tenure and promotion. Barefoot, does stress however that there are definite exceptions to this philosophy (2000).

Another common hurdle revolves around the topic of compensation for participating in these programs. “Faculty felt that the reward structure should reflect their time and commitment to the program and community” (Upcraft, Gardner, Barefoot & Associates, 2005, p. 374). This unfortunately reflects the perceived cultural differences between academia and student affairs, and their dissimilarities as educators. Scholarly work, tenure, research and other administrative assignments are tied to the faculty reward system; student affair staff members do not share this type of benefit. As a result, the obstacles mentioned above continue to be issues when discussing workload, financial support and acknowledgement through a structured reward system. All of this creates complications when discussing the design and implementation of living learning communities and the levels of participation and involvement by faculty members and staff. As mentioned above, there are exceptions to this philosophy. For example, Harvard University and Pennsylvania State University involve tenured faculty in first-year seminar courses to provide students the opportunity to work with veteran faculty members (Barefoot, 2000).

Inkelas et al., (2008) reviewed data from the National Study of Living-Learning Programs (NSLLP) that compared 300 different living learning programs across the nation. Results suggested that programs effective in facilitating student learning outcomes “. . . have strong partnerships with academic and student affairs . . .” (p. 508). This study further demonstrated the value of living learning communities, and the professional development opportunities between academics and student affairs. Faculty members who have participated in living learning programs reported greater amounts of out-of-classroom contact with students. They felt they had an increased awareness of both the academic and personal needs of their
students. In fact, faculty reported that they utilized more group projects and paid greater attention to their curriculum and how it impacted across the entire academic program when compared to their regular classroom experiences (Upcraft, Gardner, Barefoot & Associates, 2005).

Collaborative programs such as living learning programs serve to strengthen and enhance both divisions creating a mutual respect based on professional competencies and data driven decision making opportunities. Blimling, Whitt and Associates (1999) state “. . . to address these challenges, student affairs educators must foster collaboration and cross-functional dialogue with faculty colleagues to create a shared vision of a seamless learning environment . . .” (p. 135). Working together academic and student affairs are able to provide services and solutions to problems and issues that together neither division could accomplish separately. “We educate better to the degree that we work together to identify what we want students to learn and build experiences that lead them to these goals. Many of the most powerful learning experiences will occur outside of the classroom” (Masterson, 2008, p. 21). Texas Lutheran University has a specific goal of introducing first-year residential students to institutional resources, faculty/staff, peers and specific cross-divisional curricula as part of their residential living community. This program embodies several of the key characteristics associated with successful partnerships between academics and student affairs in the implementation of living learning communities. Some of these characteristics include:

- Faculty members and student affairs staff are equal partners.
- Participants bring skills and knowledge to the community and seek to learn/discover how these knowledge/skills sets complement one another.
- Partnerships seek possibilities and solutions that transcend individual divisional needs.
- Desired outcomes are clearly defined and addressed intentionally.
• Data are gathered and used to guide planning and to document progress (Masterson, 2008, p. 23).

It is the partnership between academic and student affairs in designing, implementing and assessing the success and future goals of a living learning program which will shape the learning environment and define the academic and social experiences for community members. This partnership combines the academic and social experiences into a seamless learning environment focusing on the development of learning opportunities, and outcomes, between the in-classroom and out-of-classroom setting. History demonstrates that higher education has held student affairs responsible for the affective development of students and the faculty responsible for their cognitive development. Research by Kellogg (2008) emphasized the importance of professional collaboration in order to overcoming the competitive natures of these divisions, which ultimately does more harm than good.

Research has demonstrated that there are numerous benefits from the collaborative efforts between academic affairs and student affairs divisions. Kellogg (2008) believed that when collaborative partnerships were well thought out student involvement increased and cognitive and affective elements are engaged at a higher level. In addition, institutional resources were focused on higher objectives and as a result students experienced greater personal growth and professional development. In a study by Frazier (2009) it was found that collaborative programs between faculty and staff “...enabled students to develop better communication and critical thinking skills” (p. 161). It was determined that direct and intentional participation with faculty and staff resulted in higher levels of involvement and greater levels of student satisfaction. This directly led to increased educational opportunities offered in and out of the classroom.
Why is higher education spending so much time and resources on developing deliberate collaborative partnerships between academia and student affairs? If we are to accept the premise that living learning communities are ideal learning environments creating purposeful learning objectives and programs, then we must accept that to accomplish this goal it is the responsibility of the entire college community. Masterson (2008) felt that in the future “. . . faculty and student affairs professionals will see themselves less as providers of course content and programming and more as designers of learning environments where they work together to attain deeper learning that only comes from real engagement with a subject” (p. 26).

Unfortunately, history and experience shows us that academia and student affairs are not yet prepared to function as full partners in creating a seamless educational environment. That is not to say that they are not heading towards this goal in the future. Gardner believed that change is possible “. . . it works best when initiated from the ranks of the faculty and student affairs staff” (1991, p. 14). There will be challenges both internal and external that will take some time to overcome before a true collaborative partnership may flourish. Greater financial accountability, global and technological advancements in educational services and increased accountability will force faculty members and student affair professionals to work together to meet the challenges and changes on the horizon.

**ACADEMIC IMPACT**

A good predictor of future student success may be found by examining a student’s first-year performance. The first-year experience is pivotal in creating a sound educational foundation which will influence academic success and institutional persistence rates (Pope, Miklitsch & Weigand, 2005). To understand the impact of living learning programs on academic success we must first consider how the college impact theory influences student outcomes. This theory states
that students are predisposed by their own psychological and pre-college attributes. This refers to the continuous investment of physical and psychological energy put forth by the student to succeed (Astin, 1999). This framework demonstrates that participation is linked to higher levels of involvement, integration, learning and intellectual development (Inkelas, Vogt, Longerbeam, et al., 2006).

There are a variety of living learning models being utilized today in higher education. The foundation that a majority of living learning communities are built upon include: shared knowledge in achieving academic success, creating opportunities for involvement and a shared responsibility and dependency to the institution (Tinto, 2003). Together, these three pillars form the foundation of a holistic educational experience for students. This increased involvement with programs and activities will in turn successfully integrate the social and academic components of the community (Inkelas, Daver, Vogt & Leonard, 2007; Shapiro & Levine, 1999). Only when students are able to partake in a wide range of intellectual and social experience will intellectual growth take place.

In a study focusing on first-year learning and academic success, Pike, Schroeder and Barry (1997) found that students in living learning communities had greater gains in general education. Part of this can be explained by their involvement with course specific activities and interaction with faculty members. Though this particular study was limited to one institution, and was a snap-shot of a select group of students, it does establish a strong relationship between academic success and involvement with a specific living learning community. These findings were similar to Norwood (2010) who found that student involvement in academic programs and activities outside of the classroom increased academic success, not only in first-year participants, but second-year participants as well. This is important information when developing strategic
plans past the first-year experience. Institutions can create specific residential communities throughout the student’s experience providing additional support and resources for continued involvement, academic success and persistence rates.

An additional study by Stassen (2003) identified that even in the most basic of living learning programs students showed a higher level of academic success compared to their peers in standard residential communities. This success not only included academics, but also persistence rates and overall involvement levels. Stassen (2003) explained that due to the structured academic environment students have greater opportunities to immerse themselves in content resulting in intellectual growth. These three studies reinforce Tinto’s (1993) involvement theory and demonstrate the importance of the relationship between engagement and academic success and institutional persistence rates.

Results of surveys conducted by Kurotsuchi et al. (2006) showed two significant perceptions of growth by those participants who were involved in a living learning program at three different institutions. Participants perceived growth in terms of cognitive complexity and perceived a growth in liberal learning due to their association with living learning environments. The researchers defined liberal learning as a student’s ability to process new ideas and issues within a broader context of higher education. There was a 10% higher variance in perceived liberal learning when compared to perceived cognitive growth (Kurotsuchi, et al., 2006). Another institutional specific study by Guell (2007), Indiana State University, supported this hypothesis. Guell’s data showed a 13% increase in GPAs for living learning community participants, when compared to non-members. An interesting aspect of both these studies was that the growth that took place was a direct result of peer and faculty involvement and the relationships built outside the classroom setting.
One important study to mention here is the meta-analysis by Blimling (1999) who investigated the residential influences upon academic success for undergraduate students attending U.S. higher educational institutions. While not focused specifically on living learning communities this meta-analysis is important to review when considering residential influences on academic success. Blimling stated that while there are plenty of documented studies showing the positive influence of interest-based living communities on academic success, the meta-analysis showed no significant differences between residential students and commuters. A similar study by Pascarella, et al. (1993) also found this to be true even when controlling for background traits and characteristics. Blimling (1999) determined that any differences in academic success may be attributed to “. . . motivation, curriculum and current academic abilities . . .” (p. 560). Again, this reinforces Astin’s (1984) theory of student involvement. It is the quality and quantity of involvement and the student’s motivation which is directly related to engagement and commitment.

This may then account for the increased levels of academic success for participants involved with living learning communities. Since students typically self-select these educational communities, and due to the above-mentioned attributes, they share a greater commitment to the academic curriculum and the community in which they reside. Pike, Schroder and Barry (1997) believed a living learning community experience was not the sole source for academic success. Instead, they consider a structured living environment designed to reinforce academic content and the students’ commitment to the institutional mission to be intricate tools when focusing on learning outcomes and cognitive development. These tools then enhanced the integration of the student into the campus community and the institution which in many cases heightened academic success.
Pascarella and Terenzini (1991) reviewed the role of living learning communities and the range of student outcomes. They found students who participated in these programs showed “. . . significantly larger gains in intellectual orientation when compared to students in traditional curricular programs” (p. 582). In addition, Pascarella and Terenzini (1991) controlled variables for faculty, staff and peer interaction and concluded that there was a drop in positive outcomes. This reinforces previous literature under review outlining the importance of interaction and integration of all members of a living learning community to purposefully create personal growth and intellectual development among its members. Pike’s (1999) study in intellectual outcomes supports these findings and further elaborates that these gains were not due to participation in living learning communities themselves, but were due in part to the greater levels of peer interaction and faculty involvement. The results of these studies verified the importance of not only engagement and participation but the significant contributions faculty members and staff interaction has on intellectual growth.

Chickering believed that in order for student learning to occur and critical thinking skills to develop, two variables needed to be considered when implementing teaching strategies (Pike, 1999). The first variable, differentiation, introduced students to multiple academic disciplines which enhanced academic material with rich out of classroom experiences. The second variable, integration, dictates that learners must be able to recognize and utilize critical thinking skills to see “. . . the relationships among diverse experiences and draw on these experiences in different combinations to solve complex and varied problems” (Pike, 1999 p. 269). In additional, Pike stated that research supports the importance of differentiation in the development of intellectual growth in students due to their exposure to rich academic and varied educational experiences. Living learning communities provide the ideal environment for this type of structure and
developmental opportunity. In Borst’s study on the development of critical thinking skills, it was found that participation in living learning communities had no direct or indirect effect on end-of-year critical thinking” (2011, p. 86). The findings were attributed to possible “. . . differentiation in programmatic focus, size, resources, and collaboration . . .” (p. 86). The researcher felt that the results may be atypical due to the size of the sample groups, and acknowledges that the finding may have been influenced by the extent to which faculty and peer interaction occurred.

In a study by Johnson and Romanoff (1999), at the University of South Maine, data showed that those students participating in the Russell Scholars Program were significantly more satisfied with their faculty involvement when compared to the control group. Statistically there were several additional differences between the two groups. Most notably, participants felt more comfortable speaking up in class, were active in classroom discussions, found courses interesting and worth attending and felt that faculty members were well prepared. In a multiple institutional study with three Midwestern flagship public research universities it was (Inkelas, Johnson, Lee, et al., 2006) determined that environments were the most significant predictors of students’ intellectual growth, over and above other background characteristics. Once again, this data reinforces Astin’s I-E-O model on the importance of pre-college attributes and motivation as precursors to engagement and academic success.

Astin’s (1999) study involving residential and commuter students indicated that when demographic characteristics, entering ability and coursework are taken into account residential students performed better academically. There were several explanations regarding higher academic performance levels for these participants. Findings suggested that student learning and intellectual development were influenced by interaction with faculty/staff, institutional resources and the campus environment. Also, community members who demonstrated similar interests
were able to successfully integrate academic interests with co-curricular experiences thus increasing academic success. “If institutions are really serious about helping freshmen succeed, they must take into account pre-enrollment variables, institutional characteristics, and institutional climate” (Upcraft & Gardner, 1989, p. 7).

According to a research study by Zhoa and Kuh (2004), participation in a living learning community did have a positive influence on student academic success. While corroborating previous studies, Zhoa and Kuh expounded further on the lifelong skills introduced in a living learning community. These experiences “. . . operationalize a constructivist approach to knowledge, whereby knowledge is not simply “discovered” but is socially constructed . . .” (Zhoa & Kuh, 2007, p. 117). In addition to lifelong skills brought about by participation, they made special note of creating an atmosphere conducive to males, ethnic groups and transfer students. These groups statistically are underrepresented in a majority of programs.

The National Study of Living-Learning Programs (NSLLP) conducted a multi-institutional study of living-learning programs in 2007 at 49 different four-year institutions across the United States. Several key findings in this longitudinal study found similar characteristics among successful programs. Among these similarities, participants demonstrated greater enjoyment of academic challenges when compared to those who did not reside in a living learning community. In addition, “. . . while living communities are not related to students’ perceived growth in cognitive development, participants did show gains in openness to new ideas and concepts” (NSLLP, 2007, p. I-9). This study supports previous research related to student learning outcomes and the importance of interactions with diverse peer cohorts and faculty. One of the major benefits of this particular study was that it was multi-institutional and it
purposefully sought out residential communities not associated with the living learning components as a comparison.

Tinto (2003) discussed several key points from a study by the National Center for Teaching, Learning and Assessment on learning communities. Specifically, Tinto explained the importance of involvement on the impact of the community. Data showed students in learning communities form their own support groups and spend more time with one another outside of the classroom. These groups also spent more time working on class assignments and had a higher participation rate in the classroom in comparison to traditional students. “Overall students perceived themselves as having made significantly greater intellectual gains and stronger cognitive strategies over the course of the semester” (Tinto, 2003, p. 5). An interesting addition to these findings by Astin (1999) was in regards to the development of social skills and personality development. In some cases these intensive living environments can impede cognitive development. As a result they are less likely to “. . . show increases in liberalism, hedonism, artistic interests and religious and business interests . . .” (p. 525). Astin stated that there is one personality trait that is strengthened, and that is the need for personal status. This trait outweighs all others including the need to develop personal friendship. Instead, these students experience a greater level of personal satisfaction from recognition rather than what they received from cognitive growth, academic success and performance.

Murphy’s (2010) study reviewed satisfaction levels of learning communities for first-year students at a large public university. She found that even after controlling for independent variables, such as gender, ethnicity and high school rank, participants averaged a 3.30 GPA and non-participants averaged a 2.97 GPA. A significant variable attributed to the academic success of these students were the pre-college attributes and levels of satisfaction with community
members and involvement with out-of-classroom programs and activities. An additional study by Koerner (2008), examined 544 first–year students utilizing multiple regression analysis, showed that pre-college attributes were significant contributors as predictors for academic success for participants when compared to non-participants. A comparison of final semester GPA scores revealed that participants of the living learning communities had an average GPA score .78 points higher than non-participants. Both of these studies support Astin’s (1993) involvement theory as well as his I-E-O model. Findings demonstrated the importance of participation in living learning communities on the academic success of first-year students. It also demonstrated the impact pre-college attributes have on a student’s transition to college and the development of critical thinking skills.

A similar study on the impact that participation in living learning communities had on academic performance and persistence rates was conducted by Messina (2011) and analyzed data over a three year period. This study included three subject groups: living learning communities, learning programs and commuter students. He found that participants in living learning communities earned a grade point average 2.86, participates in learning programs averaged a GPA of 2.46 and traditional commuters 2.20. In regards to persistence rates, it was determined that those student in living learning communities earned higher cumulative credits, $M = 97$, learning communities, $M = 74.59$ and traditional commuters, $M = 67.16$ (Messina, 2011, p. 131). These findings support the current research suggesting a strong correlation between involvement, academic success and time to degree completion. An interesting side note of this study was that when living learning community members were compared to traditional residential students there was no statistical significance in GPA or credits earned. However, living learning community
participants reported greater levels of satisfaction, community involvement and slightly higher levels of persistence rates.

A study at Vanderbilt University by Smith (2008) investigated the impact of living learning programs on student success and behavior. Results indicated that there was no statistically significant difference in grade point averages among participants and non-participants. Smith believed that the pre-college attributes and other institutional factors such as “. . . co-ed living environments, faculty presence and high levels of programs and activities could have contributed to these findings” (p. 79). Both traditional residential communities and living learning communities demonstrated similar levels of programming, activities and faculty/staff involvement. This demonstrates the importance of these variables as vital contributing factors in a successful living learning community. Residential communities that have ample resources and faculty/staff involvement can achieve similar levels of academic success and persistence rates.

A thought-provoking research investigation by Paine (2007) is important to mention because her research analyzed the “. . . possible differences in academic performance among students living in different physical types of on-campus residence halls” at the University of South Florida (p. 65). This study focused on the different types of physical structures and designs of residential communities and their impact on academic success. Paine found that students in traditional corridor style housing showed an increase in GPA when compared to all other types of residential facilities. Because physical structure and designs of residential communities vary from institution to institution this particular study is valuable in considering the implications of architectural design on student performance, involvement and persistence rate.
PERSISTENCE RATES

Student departure has been a much studied phenomenon “. . . fewer problems in higher education have received as much attention” (Tinto, 1993, p. 35). Hover (2010) reviewed data on first-year students and persistence rates and determined that overall enrollments rose to 2.1 million in 2010, an 8.3% increase from 2008-2009. First-to-second year persistence rates were approximately 13% higher, but the average for dropout rates was still approximately one-third to one-half. Attrition rates for returning students are approximately reduced by one-half for each year beyond the first-year that an institution can keep a student (Reason, 2009). Upcraft, Gardner, Barefoot and Associates (2005) concluded that there are several prominent characteristics which may be attributed to institutional persistence rates. These characteristics included: prior academic success, socioeconomic status, gender, race/ethnicity, family and commitment to a degree. These characteristics were validated in the 2003 report conducted by the AFT Higher Education on the risk factors associated with student persistence rates in college. Recommendations for reducing these risk factors included financial and academic advising, peer tutoring, faculty mentors, counseling and career planning.

Of these characteristics prior academic success has been identified as a leading contributor for identifying student persistence rates for students (Astin, 1993; Pascarella & Terenzini, 2005; Upcraft, Gardner, Barefoot & Associates, 2005). High school GPA is generally the metric tool utilized in measuring academic success and is considered the most useful predictor for institutional persistence rates. In Astin’s (1997) analysis of student retention he determined that high school GPA and SAT scores increased the level of student persistence rates by approximately 10%. This is important information for administrators to consider when developing academic strategies and curriculums as well as policies for admissions and
recruitment to living learning communities. It will also impact the types of programs and activities organized by academics and student affairs as well as assignments for mentors.

Pascarella and Terenzini (2005) stated that the evidence was clear that specific college experiences promoted student persistence rates and academic success regardless of the type of institution selected by the student. Involvement with living learning communities was seen as influential in the student’s desire to remain part of the community and the institution. They speculated that the effects of social integration affirmed rather than changed initial educational aspirations. Their research did not specifically link participation in living learning communities themselves as influential, but rather the increased levels of opportunities for peer interactions, reinforcing Astin’s environmental component in his I-E-O model. In fact, strong evidence indicated that the experience of living on campus, verses commuting, played a significant role when analyzing data on persistence rates.

Data collected by Pascarella and Terenzini (2005) showed statistically significant effects on the levels of student persistence rates from a student’s first-year to their second. They concluded that the first-year of college “. . . may well be the single best predictor of student success” (2005, p. 396), even when adjusting for pre-college attributes. This in part is due to the collaborative nature of peer support groups, classroom engagement, social opportunities and the ability to integrate these factors successfully. One interesting finding in their meta-analysis involved the effects on persistence rates regarding ethnic diversity. The socialization and the extent in which faculty emphasized diversity in their research and teachings impacted positively the amount of time members, and non-members, of living learning communities interacted. They go as far as to suggest “. . . that they foster a sense of ‘educational citizenship’ that is, a sense of
responsibility for the learning of others as well as for one’s own” (Pascarella & Terenzini, 2005, p. 423).

In Longerbeam, Inkelas and Brower’s (2007) study on the benefits of residence hall living, they felt the psychosocial development was particularly strong for both members and non-members alike. Living learning communities are an intricate part of the residential experience and the influence does not stop with these communities, or its members. In their study they found that when traditional residential community members interacted with living learning communities they had a higher level of academic success and persistence rates when compared to those with no interaction. They additionally found that “. . . generally, the more living learning students there were in a residence hall building, the greater the benefit to the entire community” (Longerbeam, Inkelas & Brower, 2007, p. 26). In fact, because these opportunities and activities spilled out to non-members observers could perceive the increase in interaction by all residential community members. This interaction in turn can be directly associated to the increased level of satisfaction towards courses, faculty, residency and the institution. This increased level of satisfaction in turn leads to an improved level of persistence rates within the residential community and the institution by all members of the community exposed to the learning goals and outcomes of a living learning community program.

Engagement is a major focus in the persistence framework defined by researchers such as Astin (1993), Tinto (1993), Pike and Kuh (2005) and Pascarella and Terenzini (2005). These researchers made apparent the importance of institutional policies and their direct impact on the actual levels of engagement. These researchers established that pre-college attributes such as academic aptitude, family socioeconomic status or extracurricular involvement were contributing factors for increased levels of participation and engagement among first-year students (Pike & 
Kuh, 2005). Pike and Kuh “. . . found that student’s background characteristics generally accounted for 1-5% of the variance in levels of engagement” (p. 186). However, other studies came to a different conclusion regarding the influence of institutional policies on levels of engagement and persistence rates. In fact, these studies showed that institutional policies and practices were the most important factor in creating higher levels of engagement (Astin, 1999; Pascarella, Terenzini & Blimling, 1994; Upcraft, Gardner, Barefoot & Associates, 2005). It is the increased level of engagement that most researchers believe is instrumental in increasing student persistence rates.

Part of determining the success of living learning programs stems from the promise of intellectual growth and critical thinking skills. Longerbeam, Inkelas and Brower (2007) felt that due to the benefits associated with living learning programs, enhanced peer interaction and faculty involvement, these communities became an extension of the institutional values regarding ethnicity and gender. They felt that the “Enhanced values development, tolerance, empathy, and self-esteem are all linked to the residence hall experience” (p. 20). Living learning communities invite an appreciation of racial, religious and sexual orientation leading towards a nurturing and supportive environment. This in turn increases the level of satisfaction within the participating residential communities and results in stronger persistence levels. In Andrade’s (2007) examination of positive outcomes associated with learning communities she found that these findings were true for both the academically prepared and the less prepared students. It was the association with the community that led to social acceptance, peer support, academic success and persistence rates.

Pascarella, Terenzini and Blimling’s (1994) research reinforced Tinto’s (1993) hypothesis on pre-college attributes and the benefits of persistence rates for residential students
who participated in living learning communities when compared to non-members and commuters. Typically, those students who reside on campus have higher “. . . academic aptitude, family socioeconomic status, extracurricular involvement, educational aspirations, and pre-college commitment to the institution attended” (p. 27). This research reinforces the persistence theory, by Tinto (1993), that the added advantage of living within a living learning community further enhanced the persistence level to the institution giving students an additional academic and social advantage. Astin (1996) stated that those first-year students who “. . . lived at home, commuted, attended part time, were being employed off-campus, and watched television had lower rates of persistence rates due to the decreased amount of interaction and involvement with their peers, faculty and staff ” (p. 126). This further reinforces the importance of campus involvement as a contributing variable for institutional persistence rates.

Pike, Schroeder and Barry (1997) found in their study that the higher levels of campus involvement were much greater for those students participating in living learning communities when compared to those residing in traditional residence halls. This directly relates to the consistent theory that students with increased levels of campus involvement develop closer ties to the community and the institution resulting in stronger persistence rates among this group. It is the development of these relationships and the levels of personal success which contributed to the heightened interaction and persistence rates associated with these experiences.

Enochs and Roland (2006) stated that “. . . nearly 30-40% of college students drop out without obtaining a college degree” (p. 63). The researchers described the importance of developing relationships and increasing participation to achieve the maximum learning experience within the residential community. Institutions that provide strong academic components, and environments where meaningful relationships flourished, increased
opportunities for higher persistence rates. In a study on academic success and retention from Texas A&M University Corpus Christi, first-year students participated in living learning communities called “Triads”. Data from participation in three specific courses showed that those community members had “. . . a 9% withdrawal rate and had an average GPA of 2.5, while non-triad members had a 17% withdrawal rate and a GPA of 2.2” (Sterba-Boatwright, 2000, p.4). This study supports previous research showing a correlation between participating in living learning communities, academic success and persistence rates. This data supports the Attachment Theory, based on the work by John Bowlby, emphasizing the importance of creating a strong social bond to the community and its members. According to Enochs and Roland “. . . social adjustment is just as important a variable in retention as academic success” (2006, p. 64).

Unfortunately, about half of all first-year students who enter college do not return for a second year (Pascarella & Terenzini, 2005). Inman and Pascarella (1998), following Tinto’s research on drop out behavior, supported his conclusions regarding higher levels of persistence rates for those students who are better integrated into the academic and social systems of an institution. This higher level of commitment and involvement implies that residential students, in comparison to commuters, have a stronger persistence rate despite pre-college attributes such as grades, majors, socioeconomic levels and institutional ties. Johnson and Romanoff’s (1999) survey of non-participants in the Russell Scholars Program indicated that non-participants had a higher interest in courses that would count towards transfer credits. This information supports the research findings regarding persistence rates of non-participants in residential living learning communities. Those who are not actively engaged in a residential learning opportunity tend to have less formal ties to the community and to the institution.
Patricia Cross (1998) citing a research study on community colleges, by Tinto and Russo, found that students reported greater involvement and satisfaction with learning communities when compared to regular curriculum. These students went on to report that they were more satisfied with course-work, faculty, and activities when compared to those students in standard programs. This study in compelling because it shows how a learning community can positively impact part time students attending school at the community college level. It is the structure and the relationships themselves that may result in the positive findings associated with this style of academic environment.

A similar longitudinal study of college dropouts by Astin and Chickering (Astin, 1999) supported these conclusions. Those students who persisted in higher education were identified as having higher levels of involvement. The residential component provided a natural environment for peer cohorts to interact both in and out of the classroom raising the statistics for positive academic and social growth. Those students who resided in a residential community have been identified as having significantly higher persistence rates when compared to commuters simply because of the amount of time they are physically involved in the campus community. Student satisfaction with the institution, extracurricular activities, leadership positions, faculty-student interaction and long term commitment to the institution were considerably higher when compared to commuting students. Astin (1993) estimated that the residential experience added approximately 12% to the persistence and graduation rates for college students. As such, student affair practitioners must consider living learning communities’ powerful tools in their arsenal for impacting student outcomes such as involvement, academic success and institutional persistence rates.
It is a widely accepted opinion that those students in college who are undecided have a higher rate of departure when compared to those who have selected an academic major. The problem with this perspective is that “… researchers confuse the construct of commitment to college completion with educational and career choice” (Lewallen, 1993, p. 103). Unfortunately, student affair professionals typically use subjective data when implementing strategic plans for student development and programming. Research based on a longitudinal study by the Lewallen (1993) established that the assumptions that students who were undeclared, or undecided, lacked motivation and commitment to an institution was incorrect. Data from the Higher Education Research Institute revealed that pre-college attributes and institutional environmental factors contributed significantly to student persistence rates and that the variable of uncertainty had little influence on rate of departure for students (Lewallen, 1993). This data is important for administrators to consider because typically they rely on one single variable, uncertainty of major or career, when looking at students whom they feel are at risk. Lewallen’s study recognized the need to consider the complexity and the importance of controlling the numerous environmental and social variables that have been shown to impact persistence rates.

Murphy (2010) found that even after controlling for independent variables such as gender, race, ACT scores and high school rank involvement in a living learning community significantly increased the model predicting persistence rates for first-year students. The students participating in living learning communities in this study had an 80% return rate to the institution, while non-members had a 73% withdrawal rate. Data showed that involvement in living learning communities had a significant positive relationship, not only on first-year persistence rates, but persistence rates over time. The data further revealed that non-participants were far more prone to drop out prior to graduation when compared to those students who
participated in living learning communities. This reinforces Tinto’s theory of institutional
departure and demonstrates how increased involvement with in-classroom and out-of-classroom
programs and activities are directly related to institutional persistence rates.

An interesting finding by Hu (2011) indicates that academic engagement is not enough to
infer increased persistence rates among participants. In fact, it was determined that there must be
different types of engagement both socially and academic to impact the probability of
persistence. Hu stated, that by using a variety of engagement variables as categorical instead of
continues we can improve the quality of persistence modeling resulting in generating more
useful information on engagement patterns and persistence rates (2011). In fact, educators would
expect that those students with high levels of academic engagement would typically have higher
levels of persistence when compared to those students with mid-level or low-level academic
engagement. However, Hu explained this discrepancy in this research by using a study by Kuh in
which the College Student Experiences Questionnaire (CSEQ) showed only a 4% difference in
persistence rates among those by those students classified as high-level engagement in academic
and social activities and those classified as low-level. While these results are contradictory to
current literature and research they are worth considering when structuring they types and
quantity of activities and programs centered around engagement and their impact on persistence
rates.

ETHNICITY AND GENDER

According to McClellan and Larimore (2009) by 2050 non-Hispanic White students will
make up less than half of the U.S. population. Because of the changes in student characteristics,
demographics and increases in internationalization is will be important for institutions to be
prepared for the changing environments on college campuses. Living learning communities are
just one such evolving environment that must be analyzed in preparation for future changes in higher education. An important aspect of living learning communities that must be investigated is their influence on participants by ethnicity and gender. Paralleling the trends of diversity and inclusion over the last few decades higher education must strive to create “. . . a diverse undergraduate student body that is more educationally effective than a homogeneous one” (Pascarella & Terenzini, 2005, p. 130). By insuring diverse groups of participants they state that student learning will be positively impacted indirectly by exposure, and involvement, in diversity experiences.

In a study by the Cooperative Institutional Research Program (CIRP), which included 184 four-year institutions, found that students were most engaged in learning when there was a wide range of diverse students in a variety of social environments. A large number of students reported “often” or “very often” dining or sharing a meal (54%) or socializing (49%) with racially or ethnically diverse students” (Pryor, DeAngelo, Palucki, Hurtado & Tran, 2012, p. 4). In fact, this study supported research on the secondhand benefits of living learning programs, by Longerbeam, Inkelas and Brower (2007). Data from this study showed that white students received the greatest social and academic benefits due to their exposure to diversity programs and activities. In addition, interracial peer interaction was found to have a significant influence on student intellectual development.

In a study by Edwards and McKelfresh (2002) at Colorado State University data were collected on the impact academic success and persistence rates had in the Ingersoll Residential College living community. Data indicated that non-whites who did not participate in this living community had a “. . . predicted probability of persistence of 75%, while those non-whites who participated had a predicted probability of persistence of 89%” (p. 399). Male participants had
higher academic success than non-participating males, but women participants had higher GPAs compared to all residential students. Male participants had a 64% persistence rate compared to 54% of male non-members. These findings support the conclusions of other researchers that living learning communities have a positive impact on academic success and persistence rates. One of the most important findings in this particular study was that participation appeared to have marginalized the gender gap in academic success between male and female participants. Male GPAs increased to the levels of female participants. It also revealed evidence of eliminating the gap in persistence rates between white and non-white students by increasing persistence rates among non-white students (Edwards & McKelfresh, 2002).

Purdie and Rosser (2011), using institutional data reviewed GPAs and persistence rates of first-year students in two types of living learning communities and found that though ethnicity and gender have been studied they are difficult to interpret. Female persistence rates are typically higher than males and non-white students have lower persistence rates at predominately white institutions. Being an African American student participating in a living learning community, according to this study “. . . almost doubled the odds of being retained” (p. 105). Concerns with the data from this particular study included the limited scope of the investigation. Data were gathered from a predominantly White institution and particular pre-college attributes were excluded in their survey, including family income and high school GPA. This study provided additional data to further review the impact living learning communities have on academic success and persistence rates for students broken down based on gender and ethnicity.

An interesting finding regarding ethnicity in Murphy’s study (2010) of over 16,300 students revealed that African American and Asian students did not demonstrate any significant difference in persistence rates. However, American Indian and Hispanic students had higher
withdrawal rates when compared to White students. Data showed that American Indian students were 3.53 times, and Hispanic students 1.79 times, as likely to leave at the end of the school year. Finally, gender differences of first-year students showed no statistical significance. In Koerner’s (2008) study even after controlling for pre-college attributes there was no significant difference in persistence rates when comparing ethnicity or gender groups. However, a point of interest in this study revealed that white students were less likely to return to the living learning community after the first semester when compared to minority students. These findings are not consistent with other findings in this literature review and may be limited to this particular study and sample groups.

Bewley’s (2010) research on living-learning communities focused on closing the academic performance gap between different ethnic groups. This particular study was unique in that the institution under review mandated that all first-year students live on campus in the same residence hall starting in the Fall of 2008, the only exception being those first-year students residing with their parents. A control group from 2006 was utilized because it provided data prior to the implementation of the residency requirement and development of the living learning community program. Bewley found that there was “. . . no significant difference between the students in the living-learning community from the 2008 cohort group and their on-campus counterparts from the Fall of 2006 cohort” (p. 63). This was contradictory to what the researcher expected to find based on current literature.

Instead, Bewley (2010) proposed that there may have been multiple variables that impacted the results of this study. These variables included a lack of upperclassmen leadership and mentoring, dissatisfaction with the residential facilities, an absence of programs and lack of involvement by faculty members. In addition, Bewley described the changes this institution was
undergoing as well. In 2008 the university welcomed a new president who implemented a
makeover of the institution’s “. . . logo, slogans and official colors, renamed the academic
college, and implemented new rules and policies . . .” (p. 58). This researcher felt these
uncontrollable variables may have had a negative impact on the new living learning initiatives
and contributed to the results in this particular study. These results revealed the importance of a
well thought out, and purposefully designed living learning community. The specific variables
attributed to the negative results in this study are the same variables stressed by researchers
(Astin, 1993; Edwards & McKelfresh, 2006; Kellogg, 2008; Tinto, 2009) as essential ingredients
to the success of any living learning community.

CHALLENGES AND BARRIERS

A majority of literature in the field of higher education regarding living learning
communities demonstrates the importance and benefits associated with implementation and
participation. Less attention however has been given to the unintended challenges and barriers
associated with living learning communities. As mentioned previously, living learning
communities focus on the development of communities and typically focus on students who
reside together taking common courses. Positive outcomes may include: greater motivation and
commitment, academic success, peer interaction, student retention, and heightened interaction
between student-student and student-faculty. It is here among the peer cohorts that one finds the
possibility of adverse consequences beginning to surface as more and more research on living
learning communities is collected and analyzed.

Research by Jaffee, Carle, Phillips and Paltoo (2008) provided some thought-provoking
findings. Collecting data from three distinct types of first-year peer cohorts at a medium-sized
public university, they found that first-year living learning communities, by design, reinforced
parallel traits and background pre-college attributes, and as a result these students associated
with others of similar backgrounds and interests. Without a strong mentor presence, from mature
undergraduate students, members of the community reverted back to common attitudes and
behaviors and a high school-like environment developed. Faculty reported witnessing behavior
characteristic similar to that of adolescent social groups “... identity seeking, struggling for
autonomy, needing acceptance, forming cliques and subcultures, privileging social affairs over
The mentor relationship must be a dominating factor when considering the construction of a
living learning community. It will be these mentoring relationships that assist participants in
determining appropriate activities and levels of involvement best suited to ensure academic
success and persistence.

A study by Miller and Tyree (2009) reinforces the importance of institutional and
mentoring relationships for those students most at risk. This research at the University of South
Florida was an extension of a previous study undertaken at Canisius College in the early 1990s.
The objective of this research was to establish a predictive formula for determining the risk of
attrition for those students identified as ‘high risk’ individuals. Mentors assigned to these high
risk individuals were specifically trained to respond to typical issues identified with attrition (p.
17). An interesting point in this research was the level of receptiveness on behalf of the students
due to the level of familiarity with mentors.

Despite training and scripts the level of comfort varied between mentors and was
reflected in their interaction with their students. Residence life staff members, in particular, were
more successful in their interaction when compared to other mentors. This increase in contact
was believed to have resulted because of the personal nature and familiarity between these
particular mentors and their charges. While additional studies are needed to fine tune this predictive formula of attrition by high risk individuals, it does demonstrate the potential mentoring programs have on student persistence rates.

Living learning communities purposely create small intimate cohorts, with access to very specific faculty, staff and institutional resources. Does this approach truly allow for the development of healthy interdependence, or does it instead foster a dependency on a select few mentors? Talburt and Boyles (2005) pointed out that exclusionary cliques can segregate students from upper-class students “. . . from whom they could learn socially and academically . . . and . . . may reinforce adversarial roles towards instructors, and negative community behaviors such as cheating, rudeness, or skipping class” (p. 217). These observations are collaborated by the research done by Upcraft, Gardner, Barefoot and Associates (1989) and Jaffee, Carle, Phillips and Paltoo (2008) who identified negative adolescent behavior in those participants who did not have strong peer or faculty mentor relationships.

While not openly criticizing living learning communities and their intentions, Talburt and Boyles (2005) do raise several thought provoking questions regarding the impact on participants. Are these learning communities an unconscious attempt at re-creating nostalgic, small, cohesive environments to protect members from the institutional bureaucracy? Are these communities merely a marketing tool appealing to the helicopter parents who wish to protect their student from the harsh realities of a larger college campus? Another point to consider is that institutions express a desire to create a seamless social and academic transition for students. This concept often gets lost when the administration makes a decision counterproductive to the goals and missions of these communities. While articulating clear support of the concepts and philosophies
behind living learning communities, this support is often put aside when issues of budgets, staff demands and the discussions of mandatory student participation are brought to the table.

One area which warrants additional review is the impact of student self-selection. Self-selection is often a common criticism associated with the assessment of living learning communities. This ability to self-select and participate in a living learning community may have a substantial impact on levels of involvement, interaction with faculty, academic success and level of persistence rates. In reviewing the impact on living learning communities researchers must be able to differentiate between the multiple variables associated with higher levels of engagement and institutional persistence rates (Andrade, 2007; Hotchkiss, Moore & Pitts, 2005; Stassen, 2003).

As a result, any outcomes associated with student involvement may not be a result of the program itself. Instead, success may be based on the inherent abilities and preferences of the student who elect to participate in these living learning programs. It is important to point out that the research by Pike and Kuh (2005) has shown that institutional type, mission and size may impact the levels of student engagement. Research has not been able to produce consistent relationships between pre-college attributes and engagement levels. It may be the pre-existing intellectual ability, engagement and curiosity that are the contributing factors responsible for the higher commitment to academics and persistence rates with the institution (Astin, 1999; Inkelas, Johnson, Lee, et al., 2006; Inkelas & Weisman, 2003). As such, the area of self-selection requires additional investigation to determine how institutions can develop strategies in their attempt to recruit and maintain students, and assist them in being successful members of the community.

There are several recommendations that may help institutions address some of the challenges and barriers. Upcraft, Gardner, Barefoot and Associates (1989) suggest front loading
academic and student support services (p. 266). This refers to giving specific priority to first-year students in regards to institutional resources academically and with student support services. In addition, the following strategies were suggested to decrease the discrepancies between students: 1) create an integrated campus community; 2) build partnerships between academic affairs and student affairs; 3) develop programs to increase knowledge and sensitivity to diversity across campus; 4) develop mentoring programs; 5) examine elitism, sexism, and racism and develop a plan for change and 6) is there a balance in representatives for ethnicity and gender in the numbers of faculty, executives, administrative staff and professional staff members (Upcraft, Gardner, Barefoot & Associates, 1989).

**SUMMARY**

In summary, this chapter touches on an array of literature exploring the dynamics of living learning communities and their relationships between academic success and persistence rates on participants. This research review examined several components in the design and implementation of these communities. Utilizing the conceptual theories of institutional departure by Vincent Tinto (1993) and Alexander Astin’s theory of student involvement (1993), the foundation for student academic success and persistence rates is established. This included the importance of student participation and commitment both socially and academically. Tinto theorized that as students becoming more socially and academically involved in their educational experience the greater the odds that they will be retained. Astin (1984) theorized the level of student learning and personal development is directly proportionate to the quality and quantity of student involvement. He felt that students entered college with certain pre-college attributes and that the institutional environment was responsible for learning outcomes.
Living learning communities allow for the restructuring of curricular material allowing for a deeper understanding and the integration of in-classroom and out-of-classroom educational and social experiences. While there is not a set model for living learning communities there are four typical types: 1) cluster courses, 2) first-year interest groups, 3) linked courses and 4) coordinated studies. A residence based programming model works with these communities in offering additional resources such as: faculty in residence, increased peer interaction and opportunities for coordinated learning and an academically and socially supportive living environment.

Brower and Dettinger (1998) stated that there are several common characteristics to all living learning communities. Communities must have specific boundaries which outlines who are and who are not members. Living learning communities must be able to accommodate all its members. The goal is to create a seamless relationship between student affairs and academic affairs. Also, in order for a living learning community to truly impact the development of its members it must be intentionally linked to the institution’s core mission.

Living learning communities incorporate collaborative partnerships between faculty and student affairs to create learning environments conducive to student involvement. “Faculty and student affair professionals benefit when partnerships are created and maintained” (Gardner, 1991, p. 14). The importance of involvement both in and out of the classroom plays a dramatic role in student commitment which in turn impacts academic success and persistence rates. Barriers to be aware of include: lack of knowledge of one another’s area, financial and institutional resources, and territorialism and reporting structures. Some benefits of this partnership include: shared resources, increased student awareness, greater attention to student curriculum as well as enhanced mutual respect between academic and student affairs.
Research on academic success and persistence rates show that students are predisposed to their own psychological and pre-college attributes. Students who are able to successfully integrate into their community and become highly involved in activities have shown gains in learning and intellectual growth. Evidence is clear that the college experience promotes student success and institutional persistence rates. It is the level of participation and consequentially the increased commitment that is instrumental in influencing students to succeed and remain an intricate part of the community and the institution.

Currently there has been limited research on the impact of living learning communities on specific ethnicities or gender. A review of literature suggests that a diverse student body promotes a stronger effective educational community. White students received greater academic benefits due to their exposure to diverse programs and activities. Female participants tend to have higher academic success and persistence rates. African American and participants more than double the rate of academic and persistence levels when compared to their non-participating counter-parts. McClellan, Stringer and Associates (2009) state that by 2015 “. . . it is anticipated as many as 80 percent of roughly 2.6 million new students . . . will be students from what today are considered historically underrepresented groups” and “. . . the ratio of women to men who earn baccalaureate degrees are expected to exceed 1.5 to 1” (p. 233). These statistics call to our attention the changing demographics occurring in higher education, and the importance of creating living learning communities which will take into account their specific social and academics requirements.

Some of the challenges with living learning communities are that students can become too comfortable and rely only on those whom they are familiar with. These students develop a dependency on the community and its resources, effectively limiting their exposure and
development as mature college students. Without positive mature role models first-year students may fall back into “high school” attitudes and behaviors. The end result is a negative and disheartening experience both in and out of the classroom for both the peer cohort and faculty member.

Finally, the review of literature opens up several important questions that need to be investigated. First, are these communities being implemented for the right reasons? Are these programs in place because that is “what we are supposed to do” to attract students and their parents? Second, does the administration walk the talk when push comes to shove? Do matters of budget, staffing and institutional mission statements and strategic planning take into consideration the goals and objectives of the living learning communities? And lastly, what are the effects of living learning communities on ethnicity and gender.
CHAPTER THREE
METHODOLOGY AND PROCEDURES

The following chapter describes the methodology and procedures used to examine the relationship between the independent variables of gender, ethnicity and types of residence and dependent variables of high school GPA (HSGPA), academic success and persistence rates among first-year and second-year students at the University of South Florida. Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community. Despite numerous research efforts into the impact of living learning communities on students, researchers are still trying to determine which specific models and variables are the most effective for increasing academic success and persistence rates (Astin, 1993; Tinto, 1993, 2003; Upcraft, Gardner, Barefoot & Associates, 2005).

Studies examining the effectiveness of living learning communities are sporadic and mostly focus on specific institutional variables, services and unique characteristics. Multi-institutional studies are even more infrequent and lack consistent results. In addition, research supporting the benefits of participation in living learning communities is often inconsistent qualitatively, and most studies are missing many control variables that would help determine if the effects were due to living learning community association, or to other characteristics.
RESEARCH QUESTIONS

This study was designed to answer the following research questions:

1. What is the relationship between high school GPA and type of residence for first-year and second-year students at the University of South Florida and academic success as measured by GPA? Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

2. What is the relationship between the type of residence for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic learning community or 3) interest-based learning community.

3. What is the relationship between gender and residence type on persistence rates for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

4. What is the relationship between ethnicity and residence type on persistence rates for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was
classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

RESEARCH DESIGN

This quantitative study explored the relationship between the independent variables of gender, ethnicity and types of residence and dependent variables of high school GPA (HSGPA), academic success and persistence rates among first-year and second-year students at the University of South Florida. These residential community options included traditional style, academic-based and interest-based living learning communities. Secondary data were gathered with the assistance of the Office of Decision Support, the Office of Housing and Residential Education and the Office of Student Affairs Planning, Evaluation and Assessment at the University of South Florida. The use of secondary data for this study was purposely adopted since with the help of secondary data, this researcher was able to identify potential gaps and deficiencies, identify additional information which may need to be collected and also helps to improve the understanding of the problem. The use of this archival secondary data will assist in developing comparative studies when analyzing future trends in residential communities on the campus of the University of South Florida.

In this research study, the researcher did not manipulate any of the independent variables in an attempt to alter or adjust the outcome. To answer the research questions proposed in this study, a quantitative ex-post facto research design was used to answer the various research questions. Such research is referred to as ex post facto (Latin for “after the fact”) since both the effect and the alleged cause have already occurred and must be studied in retrospect. This resulted in a casual comparative research design for this study.
While the researcher was not able to draw robust conclusions from a casual comparative research design, strong relationships could surface allowing for additional opportunities for investigation. Casual comparative research is a type of quantitative investigation that seeks to discover possible cause and effects relationships. This is done by comparing individuals by forming two (or more) groups and an independent variable and determining if any differences exist as measured by a dependent variable. In causal comparative research the independent variable has already occurred. Examples of independent variables include socioeconomic status, high school GPA, parent educational background, and so on (Gall et al., 2006).

**POPULATION AND PARTICIPANTS**

The University of South Florida is a large urban research institution located in Tampa Florida. It is one of only three Florida public universities classified by the Carnegie Foundation for the Advancement of Teaching in the top tier of research activities, a distinction attained by only 2.2 percent of all universities.

In 2010 entering first-time students were admitted to the University of South Florida with academic credentials of an inter quartile range of 1080 to 1250 for SAT scores, average ACT scores of 26, and high school GPAs of 3.81. The student-to-faculty ratio was reported as being 27:1. The University’s main Tampa campus enrolled 30,285 undergraduates student and approximately 4,604 (about 6.5%) of these students were part of the entering class of 2010 (USF Office of Decision Support, 2010).

The class of 2011 earned admission to the university with academic credentials of an inter quartile range of 1130 to 1280 for SAT scores, average ACT scores of 27, and high school GPAs of 3.91. The student-to-faculty ratio was reported as being 28:1. The University’s main
Tampa campus enrolled 29,310 undergraduate students and approximately 4,170 (about 7%) of these students were part of the entering class of 2011 (USF Office of Decision Support, 2011).

In 2010 and 2011 the USF student diversity profile report identified the following statistical information outlined in Table 1 (USF Office of Decision Support, 2012):

Table 1. University Student Diversity Profile.

<table>
<thead>
<tr>
<th></th>
<th>2010 Institutional Statistics</th>
<th>2011 Institutional Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>16,322</td>
<td>22,684</td>
</tr>
<tr>
<td>African American</td>
<td>1,611</td>
<td>2,988</td>
</tr>
<tr>
<td>American Indian</td>
<td>71</td>
<td>100</td>
</tr>
<tr>
<td>Asian</td>
<td>1,154</td>
<td>1,378</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2,588</td>
<td>3,566</td>
</tr>
<tr>
<td>White</td>
<td>10,490</td>
<td>14,025</td>
</tr>
</tbody>
</table>

According to the University of South Florida Housing & Residential Education Office nearly 3,542 first-year students elected to live on the University of South Florida main Tampa campus in the Fall of 2010. In the Fall of 2011, it was estimated that there were 3,576 first-year students who resided in on-campus housing. The samples for this study were drawn from first-year and second-year students who were assigned to reside in a University sponsored living learning communities or traditional style living communities. Community members were broken down into three categories: 1) those who were assigned to academic living learning communities, 2) those who were assigned to interest-based living learning communities and 3) those who were assigned to traditional style residential communities. Assignments were determined only after participants submitted an application to the Office of Housing and Residential Education. Participants had to meet specific qualifications as dictated by the community under review.
An additional analysis controlling for gender and ethnicity was reviewed to determine any differences in the levels of persistence rates of these residential participants. Only those first-year, and second-year, students who were residential students in these specific residence type communities in the Fall of 2010 or 2011 were included in this study.

VARIABLES

Independent Variables:

Type of residential community

1. Traditional-style residence hall community

   - Beta Traditional Hall - A traditional style residence hall in the Argos Complex. Beta hall has the capacity to house 280 students in a traditional style building where bedrooms open off of a common hallway. The hall is single-sex by bedroom with separate men’s and women’s bathrooms at the center of each wing.

   - Caster Traditional Hall - A traditional-style residence hall in the Argos Complex. Caster hall has the capacity to house approximately 360 students in a traditional-style building where bedrooms open off of a common hallway. It is single-sex by wing. Residents share a community bathroom located at the center of each wing.

   - Popular Hall - Poplar consists of two seven-story towers joined at the first floor by a common lobby, dining facility, office complex and classrooms. Poplar Hall houses 630 primarily first-year students and offers suite-style living, with each suite consisting of two double bedrooms and one bathroom. The hall is single-sex by suite and coed by floor.

Selection Process - Complete online application at www.housing.usf/apply. Submit application fee of $50 and a $200 pre-payment.

According to the Housing and Residential Education Office at the University of South Florida (2012), first year undergraduate student are required to live in on-campus housing. Students may be exempt from the requirement to live in the residence halls if:

   - The student will reach the age of 21 prior to the first day of classes of their first term of enrollment.
   - The student is married.
• The student has dependent family (children or parents) under the student’s care.
• The student resides in the principal residence of a parent or legal guardian within the counties of Hillsborough, Pasco, or Pinellas. Students desiring this exemption must apply and provide parent or legal guardian endorsement.

2. Academic living learning community

• Advertising - The Zimmerman Advertising program living learning community (ZAP - LLC) is an advertising and marketing-themed community. Poplar Hall houses 630 primarily first-year students and offers suite-style living, with each suite consisting of two double bedrooms and one bathroom. The hall is single-sex by suite and coed by floor.

  Selection Process - Weighted high school GPA of at least 3.50. Applicants must have an SAT of at least 1140 (minimum writing SAT of 550) or an ACT score of at least 25 (minimum writing ACT of 24) (USF Housing and Residential Education Office, 2012). (Students who do not meet these requirements may be admitted on a provisional basis).

• Bulls Business - The Bulls Business community (BBC) living learning community is an organization for high-achieving students who have been admitted early into the business school. Poplar Hall houses 630 primarily first-year students and offers suite-style living, with each suite consisting of two double bedrooms and one bathroom. The hall is single-sex by suite and coed by floor.

  Selection Process - Applicants must meet the BBC eligibility requirements, which are the requirements for the Bulls Business Network (BBN). They must have a weighted High School GPA of at least 3.50 and an SAT of at least 1140 or ACT of at least 25. Applicants must have a minimum math SAT of 550 or math ACT of 24 and currently intend to major in business. If accepted into the BBC, community members must be enrolled in a BBC University Experience course. They must regular attend and participate in BBC activities throughout the year. Applicants will reside in the BBC for one full academic year and understand there is an additional fee of $225.00 per semester. This is used to cover the costs of BBC activities and events (USF Housing and Residential Education Office, 2012).

• Engineering - The Engineering Living & Learning Community (ELLC) is an on-campus residential learning community designed for students majoring in engineering. Poplar Hall houses 630 primarily first-year students and offers suite-style living, with each suite consisting of two double bedrooms and one bathroom. The hall is single-sex by suite and coed by floor.
Selection Process - To be considered for inclusion in the ELLC students need to declare a major in engineering, complete the Student Housing Contract from and submit the ELLC Application. Requirements for community members include (USF Housing and Residential Education Office, 2012):

- Will attend Engineering Smart Start during the week prior to the start of Fall classes.
- Will attend ELLC programming and events and hall meetings scheduled by the ELLC Resident Assistant.
- Will intend to major in engineering.
- Students in the ELLC are expected to become active members in at least one engineering related student organization.
- Will participate in Engineering EXPO.

Housing and Residential Education will assess an additional fee of $125.00 per semester to reside in the ELLC. The College of Engineering utilizes these fees to defray the additional costs of hiring tutors and conducting programs for the students of the ELLC.

- Honors - Built on the foundation of our three pillars: research, service, and scholarship; residents are expected to participate in programs and activities for career exploration, relationship building/networking, connections with Honors faculty and staff, opportunities for academic advancement, and personal development. Juniper Hall houses 420 students and offers suite-style living, with each suite consisting of two double bedrooms and one bathroom. The hall is single-sex by suite and coed by floor.

Selection Process - Housing assignments are completed by the Housing department and are made on a first come first served basis according to completion of the entire housing contract. Housing and Residential Education will assess an additional fee of $125.00 per semester to reside in the Honors living learning community. These fees are used to defray the additional costs of hiring tutors and conducting programs for the students residing in this living learning community (USF Housing and Residential Education Office, 2012).

- Pre-Nursing - This community creates a unique opportunity for pre-nursing majors to live and study together. Students co-enroll in critical pre-nursing prerequisite course work, participate in special events and activities designed to introduce them to the nursing profession, and network with College of Nursing administrators, faculty, and student leaders. Students also enjoy in-hall academic advising throughout the year, as well as in-hall tutoring for selected courses. Built in 2003, Maple Hall consists of two four-story buildings and is located at the corner of Maple Drive and Holly Drive. It offers suite-style living with each suite consisting of two double bedrooms and one bathroom. The hall is coed by suite with four single-sex students.
sharing an individual suite (USF Housing and Residential Education Office, 2012).

Selection Process - Housing assignments are completed by the Housing department and are made on a first come first served basis according to completion of the entire housing contract. To gain admission to a Nursing LLC, students will need to complete an online LLC program application (in addition to the general USF housing application) and be admitted into the LLC program.

- **ROTC** - This community provides students the opportunity to live in a community with other students who are headed down the path of a commission in the U.S. Armed Forces. While living in the ROTC LLC, students will be exposed to traditions, customs, and the culture of each military service, in order to develop a sense of camaraderie and identification. The ROTC LLC requires members to:
  - Attend special LLC programming events and floor meetings.
  - As an upper-class ROTC student, participate as a mentor to new ROTC students.

Selection Process - To be considered for inclusion in the ROTC LLC students need to be accepted into the ROTC program. Be officially enrolled in an ROTC program at USF (If dis-enrolled from ROTC, you will be reassigned to a non-LLC floor for the start of the spring semester). Housing assignments are completed by the Housing department and are made on a first come first served basis according to completion of the entire housing contract. Students admitted to the ROTC LLC will be automatically assigned to live in Maple Hall, a suite-style residence hall near the ROTC building (USF Housing and Residential Education Office, 2012).

3. **Interest based living learning community**

- **Green** - In the Green living learning community, community members lead the way by advocating the positive effects of being socially responsible and actively engaged in the community. While creating an atmosphere of awareness for their peers, students in this community have the opportunity to make a difference by pursuing their own initiatives and working with faculty and administrators on a variety of campus green projects. Built in 2003, Maple Hall consists of two four-story. It houses approximately 230 students and offers suite-style living with each suite consisting of two double bedrooms and one bathroom. The hall is coed by suite with four single-sex students sharing an individual suite.

Selection Process - Housing assignments are completed by the Housing department and are made on a first come first served basis according to
completion of the entire housing contract (USF Housing and Residential Education Office, 2012).

- **Transfer** - Exclusive for transfer students new to USF (but not to college), the Transfer-A-Bull community emphasizes learning USF traditions, understanding academic resources, and connecting with and learning from other residents and their college experiences. Built in 2000, Holly Apartments is comprised of seven three- and four-story buildings and houses approximately 728 upper-class students. Each apartment unit offers four single bedrooms sharing a living area with kitchenette and two bathrooms. The hall is coed with four single-sex students sharing one individual unit.

Selection Process - Selection Process: Housing assignments are completed by the Housing department and are made on a first come first served basis according to completion of the entire housing contract (USF Housing and Residential Education Office, 2012).

- **Leadership** - The Leadership LLC provides opportunities for students to build their personal leadership skills through involvement in the USF, Tampa Bay, and global communities. Members of the Leadership community aspire to develop their own philosophy of leadership and contribute to and create campus traditions through civic engagement and programming. Built in Fall 2004, Cypress Hall consists of two five-story buildings and is located at the corner of Maple Drive and Holly Drive. It houses approximately 300 students and offers suite-style living with each suite consisting of two double bedrooms and one bathroom. The hall is coed by suite with four single-sex students sharing an individual suite. The 1st floor of Cypress Hall Building B is home to the Leadership Living Learning Community (USF Housing and Residential Education Office, 2012).

Selection Process - To gain admission to the Leadership LLC, students will need to complete an online LLC program application (in addition to the general USF housing application) and be admitted into the LLC program.

- **Wellness** - Students will have the chance to make friends with people who share the goal of living a well-balanced life. Common interest activities include healthy cooking classes, goal setting strategies, off-campus trips, fitness classes, and stress management. Benefits of the Wellness LLC Program include (USF Housing and Residential Education Office, 2012):
  - Access to programs such as free group fitness classes, healthy cooking demonstrations, wellness workshops, and more.
  - Receive the skills and tools needed to live a healthy and well life while at the same time promoting academic success, social support, community involvement, and personal responsibility.
Selection Process: To gain admission to the Leadership LLC, students will need to complete an online LLC program application (in addition to the general USF housing application) and be admitted into the LLC program.

4. Gender
   - Participants were categorized into male and female groups.

5. Ethnicity
   - Participants were categorized into four groups: White/non-Hispanic, Black/non-Hispanic, Hispanic and Others.

Dependent Variables:

1. Academic success as measured by the University of South Florida cumulative grade point average from the Fall of 2010 and 2011 semesters to the spring of 2012 semester.

2. Persistence rates from the Fall of 2010 or 2011 to Fall of 2012 as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were subsequently still enrolled at the University of South Florida during the Fall 2012 semester.

3. High school academic success as measured by cumulative grade point average.

DATA COLLECTION PROCEDURES

As mentioned previously, secondary data were gathered with the assistance of the Office of Decision Support, the Office of Housing and Residential Education and the Office of Student Affairs Planning, Evaluation and Assessment at the University of South Florida. The use of secondary data for this study was purposely selected due to the large sample size and measurement validity. The use of this archival secondary data will assist in developing comparative studies when analyzing future trends in residential communities on the USF campus. All data was coded for individual students participating in the residential communities under review.
Student data included:

*Student Demographics*

- Gender
- Ethnicity

*Academic Performance Data*

- Cumulative Grade Point Average - This study followed the grade point scale utilized at the University of South Florida which ranges from 0 to 4.0.
- Enrollment Status - First-year students were measured by the proportion of students who first matriculated in the Fall of 2011 and were enrolled in the Fall 2012 semester at the University of South Florida. Second-year students were measured by the proportion of students who first matriculated in the Fall of 2010 and were enrolled in the Fall 2012 semester at the University of South Florida.
- High school grade point average as measured by a student's academic success at the high school level; calculated by dividing the total number of grade points received by the total number of credit hours attempted. This study followed the grade point scale typically used by most school districts which ranges from 0 to 4.0.

**DATA ANALYSIS**

The following section describes the methodology and procedures used to examine the relationship between the independent variables of gender, ethnicity and types of residences and dependent variables of high school GPA (HSGPA), academic success and persistence rates among first-year and second-year students at the University of South Florida. Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community. Despite numerous research efforts into the
impact of living learning communities on students, researchers are still trying to determine which specific models and variables are the most effective for increasing academic success and persistence rates (Astin, 1993; Tinto, 1993, 2003; Upcraft, Gardner, Barefoot & Associates, 2005).

Data were analyzed using the Statistical Analysis Software (SAS) through proc freq, proc means, proc reg and proc glm procedures. An alpha level of .05 was used to assess statistical significance. Descriptive statistics such as means standard deviation, skewness, and kurtosis were reported for all continuous variables used in this study. Inferential statistics would provide more insight by analyzing comparable areas from which inferences will be drawn. Analysis of Variance (ANOVA) is an inferential statistics method that compares the amount of between group variance in individuals’ scores with the amount of within groups’ variance. Analysis of covariance (ANCOVA) is a general linear model which blends ANOVA and regression.

Listed below are the analysis procedures that were applied to each research question as well as the descriptive statistics mentioned previously.

Question 1: One-way analysis of variance (ANOVA) was conducted to determine any statistically significant differences among the types of residency classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community on academic success. In addition, an analysis was conducted to investigate the relationship between high school academic GPA, Fall 2012 GPA and type of residence community using an analysis of covariance (ANCOVA) for both first-year and second-year students. Regression analyses were conducted to predict academic success from high school GPA. A Tukey-Kramer adjustment for multiple comparison was used to control for high school GPA.
GPA, Fall 2012 GPA and residence types among participants The Fall 2012 GPA is cumulative of the all previous term GPA’s and so was deemed a combined measure of academic success.

Question 2: One-way analysis of variance (ANOVA) was conducted to determine any statistically significant differences among the types of residency classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community on persistence rates.

Question 3: A 2 x 3 factorial analysis of variance (ANOVA) was conducted to determine if there were any statistically significant gender, types of residency and their interaction differences in persistence rates.

Question 4: A 3 x 4 factorial analysis of variance (ANOVA) was conducted to determine if there were any statistically significant ethnicity, type of residency and their interaction differences in persistence rates.
CHAPTER FOUR
ANALYSIS OF DATA

This research study sought to examine the relationships between the independent variables of gender, ethnicity, types of residences, dependent variables of high school GPA (HSGPA), academic success and persistence rates among first-year and second-year students at the University of South Florida. Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

Data were collected from 1,350 first-year and 1,695 second-year full time students who were assigned to specific residential type communities in the Fall of 2010 and Fall of 2011 at the University of South Florida. A comparative research design was used to answer the four research questions in this study. The following sections in this chapter will address sample population and demographic profiles of the participants and data analysis for each research question.

SAMPLE POPULATION AND DEMOGRAPHIC PROFILE

Descriptive statistics is the discipline of quantitatively describing the main features of collecting data and summarizing sample groups. The material in this section presents data that summarizes the research results obtained from the University of South Florida. The main dependent variables in this study were high school GPA, Fall 2012 GPA and persistence rate. The main independent variables included type of residential community, gender and ethnicity.
The sample for this study was drawn from first-year and second-year students after completing a residence housing application based on personal, academic or interest-based objectives. Students were then assigned by the Housing and Residence Education Office to the corresponding residential communities at the University of South Florida. The study was limited to students at the University of South Florida living on campus that began as FTIC students, who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities. Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

Table 2 and Table 3 provide a breakdown by admission, gender, and ethnicity and residence type for both first-year and second-year student participants. In addition to data regarding gender and ethnicity, data on academic success and persistence rates were collected by the residence type assigned to participants.

Table 2. Enrollment Status First-Year Students.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>771</td>
<td>(57.11)</td>
</tr>
<tr>
<td>Male</td>
<td>579</td>
<td>(42.89)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>801</td>
<td>(59.33)</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>236</td>
<td>(17.49)</td>
</tr>
<tr>
<td>Black</td>
<td>141</td>
<td>(10.44)</td>
</tr>
<tr>
<td>Other</td>
<td>172</td>
<td>(12.74)</td>
</tr>
<tr>
<td><strong>Residence Type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic-Based</td>
<td>216</td>
<td>(16.00)</td>
</tr>
<tr>
<td>Interest-Based</td>
<td>134</td>
<td>(9.93)</td>
</tr>
<tr>
<td>Traditional Style</td>
<td>1000</td>
<td>(74.07)</td>
</tr>
</tbody>
</table>

N=1350
Academic success was determined by the end of Fall 2012 cumulative GPA. This study followed the grade point scale utilized at the University of South Florida which ranges from 0 to 4.0.

Table 3. Enrollment Status Second-Year Students.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>782</td>
<td>(46.14)</td>
</tr>
<tr>
<td>Female</td>
<td>913</td>
<td>(53.86)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1076</td>
<td>(63.48)</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>249</td>
<td>(14.69)</td>
</tr>
<tr>
<td>Black</td>
<td>147</td>
<td>(8.67)</td>
</tr>
<tr>
<td>Other</td>
<td>223</td>
<td>(13.16)</td>
</tr>
<tr>
<td>Residence Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic-Based</td>
<td>654</td>
<td>(38.58)</td>
</tr>
<tr>
<td>Interest-Based</td>
<td>24</td>
<td>(1.42)</td>
</tr>
<tr>
<td>Traditional Style</td>
<td>1017</td>
<td>(60.00)</td>
</tr>
</tbody>
</table>

N=1695

DATA ANALYSIS

This section includes both descriptive and inferential statistics based on the results of the Statistical Analysis Software (SAS) program which was used to analyze the data to answer the questions in this research study. When testing by an ANOVA, there are three basic assumptions which must be met. First, the assumption of independence was tenable as students’ data were archival historical data which stood independent of other student samples. The second assumption of normality was ascertained by analyzing the skewness and kurtosis values of each of the subscales. These findings indicate that the sample may have been drawn from a normally distributed population.
Homogeneity of variance tests were performed to determine if significant differences existed in the variances of student academic success and persistence rate by the various categories of the main independent variables of the study. Finally, the assumption of homogeneity of variance was that the variances in each of the sample groups were equal. The p-values associated with each of the variance homogeneity tests were all greater than 0.05 indicating a reasonable assumption of equal variances. In practice, it is safe using ANOVA if the largest sample standard deviation is not larger than twice the smallest. This was the same case with the data in this investigation. However, a one-way ANOVA would still work well even when the assumption of homogeneity of variance is violated, except in cases where there are gross unequal numbers of subjects in the various comparison groups. To guard against this, the generalized linear model (GLM) form of ANOVA was used. Also, part of this analysis required the use of simple linear regression to investigate how high school GPA was related to academic success as measured by the Fall 2012 GPA for both first-year and second-year students. Just like most other quantitative models, linear regression always rests on assumptions. For this study, the researcher addressed two principal assumptions to justify our use of linear regression models for purposes of prediction. These assumptions included linearity of the relationship between dependent and independent variables and the normality of the error distribution.

If any of these assumptions were violated then the forecasts, confidence intervals, and relational insights yielded by a regression model may be (at best) inefficient or (at worst) seriously biased or misleading. Nonlinearity or otherwise is usually most evident in a plot of the observed versus predicted values or a plot of residuals versus predicted values, which are a part of standard regression output. The points should be symmetrically distributed around a diagonal line in the former plot or a horizontal line in the latter plot.
Violations of normality compromise the estimation of coefficients and the calculation of confidence intervals. Sometimes the error distribution is "skewed" by the presence of a few large outliers. Since parameter estimation is based on the minimization of squared error, a few extreme observations can exert a disproportionate influence on parameter estimates. This normality assumption is best tested in a normal probability plot of the residuals.

Figure 5 and Figure 6 show the linearity and normality test assumption results for first-year and second-year students respectively.
As evident in the figures for linearity and normality diagnostics (Figures 5 and 6), there are indications of linear relationship between high school GPA and college academic success and that of normally distributed errors in the normal probability plots of the residuals.

**Figure 6.** Linearity and normality assumption tests for Second-Year Students.
These results demonstrate that the points on this plot fall close to the diagonal line. As such, using simple linear regression technique to investigate the relationship between high school GPA and academic success among first and second year students was tenable.

ANALYSIS OF RESEARCH QUESTIONS

This study sought to answer four research questions through analysis of archival historical data to determine any relationship between academic success, persistence rate, and the type of residence for first-year and second-year students at the University of South Florida. Additional demographic variables also investigated included gender and ethnicity to determine if any significant differences existed in persistence rates. The following is a summary of the findings for each of the research questions based on the data provided by the Office of Housing & Residential Education at the University of South Florida (2012).

Research Question 1

What is the relationship between high school GPA, type of residence for first-year and second-year students at the University of South Florida and academic success as measured by GPA? Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

To determine if there was a relationship between academic success and type of residence community, data were collected from 1,350 first-year and 1,695 second-year residential students who were assigned to specific residential type communities in the Fall of 2010 and 2011 at the University of South Florida. These data were analyzed using an Analysis of Variance (ANOVA). For all the analyses, the cut-off significance level was set at 0.05. Means for the various tests groups were analyzed to find any statistically significant differences among residential
communities under investigation. Due to the importance of persistence rates in this investigation it was decided to remove those participants who had not persisted within their original residential community from Fall 2010, and 2011, to Fall 2012 when analyzing academic success. As such only those participants who actually completed their first-year, and second-year, residential experience were included in this investigation. This will allow for a more robust and precise analysis of academic success among participants when analyzing the relationship between residential type and academic success.

As seen in Table 4 the mean academic success for the academic-based residence population for first-year students was 3.23 ($N = 197; SD = 0.64$), the mean academic success for interest-based residence population was 3.14 ($N = 111; SD = 0.57$), and the mean academic success for traditional style residence population was 3.05 ($N = 871; SD = 0.62$). Table 5 is a summary of a one-way ANOVA. It showed that there was a significant difference in at least one pair of the residence types ($F = 12.23; \ p < .0001$). As such, it was concluded that there was a significant residence type main effect in at least one pair of residence types on academic success among first-year students.

Table 4. Mean and Standard Deviation: Academic Success by Residence Type – First-Year Students.

<table>
<thead>
<tr>
<th>Residence Type</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic-Based</td>
<td>197</td>
<td>3.23</td>
<td>0.64</td>
</tr>
<tr>
<td>Interest-Based</td>
<td>111</td>
<td>3.14</td>
<td>0.57</td>
</tr>
<tr>
<td>Traditional Style</td>
<td>871</td>
<td>3.05</td>
<td>0.62</td>
</tr>
</tbody>
</table>

Data on first-year academic success by residence types showed the mean academic success ranged from 3.05 to 3.23 (Table 4).
Post hoc tests using Tukey HSD showed significantly higher mean academic success for the academic-based residence types as compared to traditional-based residence types for first-year participants (Table 6). Results suggest, those first-year students who resided in academic-based residence communities had higher levels of academic success when compared to traditional style community participants.

**Table 5.** ANOVA: Academic Success by Residence Type – First-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>2</td>
<td>6.52</td>
<td>3.26</td>
<td>12.23</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Error</td>
<td>1176</td>
<td>313.91</td>
<td>0.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1178</td>
<td>320.43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post hoc tests using Tukey HSD showed significantly higher mean academic success for the academic-based residence types as compared to traditional-based residence types for first-year participants (Table 6). Results suggest, those first-year students who resided in academic-based residence communities had higher levels of academic success when compared to traditional style community participants.

**Table 6.** Tukey's Standardized Range (HSD) Test for Fall 2012 GPA – First-Year Students.

<table>
<thead>
<tr>
<th></th>
<th>Academic-Based</th>
<th>Traditional-Based</th>
<th>Interest-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Based</td>
<td>0</td>
<td>0.19 * (0.09, 0.29)</td>
<td>0.09 (-0.04, 0.24)</td>
</tr>
<tr>
<td>Traditional Based</td>
<td>-0.19 * (-0.29, -0.09)</td>
<td>0 (-0.21, 0.02)</td>
<td></td>
</tr>
<tr>
<td>Interest-Based</td>
<td>-0.09 (-0.24, 0.04)</td>
<td>0.09 (-0.02, 0.21)</td>
<td>0</td>
</tr>
</tbody>
</table>

*Statically Significant at the 0.05 Alpha Level.

As seen in Table 7 the mean academic success for the academic-based second-year residence population was 3.33 (N = 527; SD = 0.48), the mean academic success for interest-based residence population was 3.12 (N = 16; SD = 0.34), and the mean academic success for traditional style residence population was 3.11 (N = 789; SD = 0.47). Table 8 is a summary of a one-way ANOVA. It showed that there was a significant difference in academic success by the residence type (F = 32.56; p < .0001). As such, it was concluded that there was a significant
residence type main effect in at least one pair of residence types on academic success among second-year students.

**Table 7.** Mean and Standard Deviation: Academic Success by Residence Type – Second-Year Students.

<table>
<thead>
<tr>
<th>Residence Type</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic-Based</td>
<td>527</td>
<td>3.33</td>
<td>0.48</td>
</tr>
<tr>
<td>Interest-Based</td>
<td>16</td>
<td>3.12</td>
<td>0.34</td>
</tr>
<tr>
<td>Traditional Style</td>
<td>789</td>
<td>3.11</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Data on second-year academic success by residence types showed the mean academic success ranged from 3.11 to 3.33 (Table 7).

**Table 8.** ANOVA: Academic Success by Residence Type – Second-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>2</td>
<td>14.86</td>
<td>7.43</td>
<td>32.56</td>
<td>0.0001</td>
</tr>
<tr>
<td>Error</td>
<td>1329</td>
<td>303.40</td>
<td>0.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1331</td>
<td>318.26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post hoc tests using Tukey HSD showed significantly higher mean academic success for the academic-based residence as compared to interest-based residence types for second-year participants (Table 9). Results suggest, those second-year students who resided in academic-based residence communities had higher levels of academic success when compared to interest-based and traditional style community participants.
Table 9. Tukey’s Standardized Range (HSD) Test for Fall 2012 GPA – Second-Year Students.

<table>
<thead>
<tr>
<th></th>
<th>Academic-Based</th>
<th>Traditional-Based</th>
<th>Interest-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Based</td>
<td>0</td>
<td>0.21 * (0.15, 0.27)</td>
<td>0.20 (-0.007, 0.49)</td>
</tr>
<tr>
<td>Traditional Based</td>
<td>-0.21 * (-0.27, -0.15)</td>
<td>0</td>
<td>-0.008 (-0.29, 0.27)</td>
</tr>
<tr>
<td>Interest-Based</td>
<td>-0.20 (-0.49, 0.07)</td>
<td>0.008 (-0.27, 0.29)</td>
<td>0</td>
</tr>
</tbody>
</table>

*Statically Significant at the 0.05 Alpha Level.

An additional investigation was conducted to determine if there was a relationship between high school academic GPA, Fall 2012 GPA and type of residence community among first-year students. In order to determine if any correlation existed between high school GPA, Fall 2012 GPA and residence type, data were analyzed using an analysis of covariance (ANCOVA). Means for each of the three communities were broken down based on residence type (Table 10). The means were then analyzed for any significant differences among the groups. The mean scores ranged from 3.58 to 3.88.

Table 10. Least Squares Means - Adjustment for Multiple Comparisons: Tukey-Kramer – First-year Students.

<table>
<thead>
<tr>
<th>Residence Type</th>
<th>N</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>197</td>
<td>3.81</td>
</tr>
<tr>
<td>Interest-Based</td>
<td>111</td>
<td>3.58</td>
</tr>
<tr>
<td>Traditional</td>
<td>871</td>
<td>3.74</td>
</tr>
</tbody>
</table>

A regression analysis was also conducted to determine how high school GPA (HSGPA) could predict college academic success among first-year students and residence types. The regression graph is as indicated in Figure 7. As demonstrated, those who resided in academic-based type communities had higher levels of high school academic success, followed by
traditional style and then interest-based residence types. The results of the simple regression suggest that a significant proportion of the total variation in college academic success was predictable by high school GPA. As such, high school GPA could be considered a good predictor of college academic success among first-year students. Multiple R squared indicated that among first-year students, approximately 25.7% of the variation in academic success was accounted for by high school GPA.

![Analysis of Covariance for HSGPA](image)

**Figure 7.** Regression graph for predicting college academic success (Fall 2012 GPA) from high school GPA (HSGPA) among first-year students by residence type.

As seen in Table 11 there was a significant difference in at least one pair of the residence types ($F = 133.70; p < .0001$). As such, it was concluded that there was a significant residence type main effect in at least one pair of residence types based on high school GPA and Fall 2012 GPA for first-year students.
Table 11. ANCOVA: High School Grade Point Average and Fall 2012 GPA by Residence Type – First-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>3</td>
<td>51.12</td>
<td>17.0</td>
<td>133.70</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Error</td>
<td>1154</td>
<td>147.09</td>
<td>0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1157</td>
<td>198.22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post hoc tests using Least Square Means with a Tukey-Kramer adjustment for multiple comparisons (Figure 8) showed significantly higher mean academic success for the academic-based residence types as compared to interest-based and traditional style residence types. As demonstrated, those first-year students who resided in academic-based residence communities had higher levels of academic success in high school, compared to the other residence type communities. It was therefore concluded that there was a strong correlation between high school grade point average, Fall 2012 GPA and residence types for first-year students.

Figure 8. Tukey-Kramer adjustment for multiple comparison controlling for high school GPA, Fall 2012 GPA and residence types among first-year students.
This research investigation also sought to determine if there was a relationship between high school academic GPA, Fall 2012 GPA and type of residence community among second-year students. In order to determine if any correlation existed between high school GPA, Fall 2012 GPA and residence type, data were analyzed using an analysis of covariance (ANCOVA). Means for each of the three communities were broken down based on residence type, as indicated in Table 12. The means were then analyzed for any significant differences among the groups. The mean scores ranged from 3.69 to 3.94.

Table 12. Least Squares Means - Adjustment for Multiple Comparisons: Tukey-Kramer – Second-Year Students.

<table>
<thead>
<tr>
<th>Residence Type</th>
<th>N</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>527</td>
<td>3.94</td>
</tr>
<tr>
<td>Interest-Based</td>
<td>16</td>
<td>3.81</td>
</tr>
<tr>
<td>Traditional</td>
<td>789</td>
<td>3.69</td>
</tr>
</tbody>
</table>

The regression analysis, as indicated in Figure 9, further established how high school GPA (HSGPA) could predict college academic success among second-year students by residence type. As demonstrated, those who resided in academic-based type communities had higher levels of high school academic success, followed by interest-based and then traditional style residence types. The results of the simple regression suggest that a significant proportion of the total variation in college academic success was predictable by high school GPA. As such, high school GPA could be considered a good predictor of college academic success among second-year students. Multiple R squared indicated that among second year students, approximately 35.3% of the variation in academic success was predicted by high school GPA.
Figure 9. Regression graph for predicting college academic success (Fall 2012 GPA) from high school GPA (HSGPA) among second-year students by residence type.

As seen in Table 13 there was a significant difference in at least one pair of the residence types ($F = 273.13; p < .0001$). As such, it was concluded that there was a significant residence type main effect in at least one pair of residence types based on high school GPA and Fall 2012 GPA for second-year students.

Table 13. ANCOVA: High School Grade Point Average by Residence Type – Second-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>3</td>
<td>92.25</td>
<td>30.75</td>
<td>238.32</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Error</td>
<td>1309</td>
<td>168.90</td>
<td>0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1312</td>
<td>261.15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Post hoc tests using Least Square Means with a Tukey-Kramer adjustment for multiple comparisons showed significantly higher mean academic success for the academic-based residence types as compared to traditional style residence types (Figure 10). There was no significant difference found between interest-based residence type participants and the other two sample groups. This may have been due to the low statistical power due to the sample size of this group. As demonstrated, those second-year students who resided in academic-based residence communities had higher levels of academic success in high school, followed by interest-based and traditional style residence types.

**Figure 10.** Tukey-Kramer adjustment for multiple comparison controlling for high school GPA, Fall 2012 GPA and residence types among second-year students.

It was therefore concluded that there was a strong correlation between high school grade point average, Fall 2012 GPA and residence types for second-year students.
Research Question 2

What is the relationship between the type of residence for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic learning community or 3) interest-based learning community.

Persistence rates were measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and who were assigned to specific residence type communities at the University of South Florida during the Fall 2012 semester. Tables 14 and 15 outline persistence rates by residence type for first-year students. Student persistence rates by residence type for second-year students are outlined in Tables 16 and 17.

To determine whether students living in different types of residence communities differed in their mean measures of persistence rates, data were collected based on occupancy of each of the residence types. Housing assignments were made by the Office of Housing & Residential Education at the University of South Florida (2012). This office provided data on housing assignments and admission terms for each community, as well as a random selection of students used in the sampling groups for this study. An ANOVA was used to determine any relationship between type of residence community and persistence rates.

As seen in Table 14, for first-year students who returned to their residential communities, the persistence rates for the academic-based residence population was 0.91 \((f=197)\), the persistence rates for interest-based residence population was 0.83 \((f=111)\), and the persistence rates for traditional style residence population was 0.87 \((f=871)\).
**Table 14.** Persistence Rates by Residence Type – First-Year Students.

<table>
<thead>
<tr>
<th>Residence Type</th>
<th>Persisted</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic-Based</td>
<td>f</td>
<td>197</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>(.91)</td>
<td>(.09)</td>
</tr>
<tr>
<td>Interest-Based</td>
<td>f</td>
<td>111</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>(.83)</td>
<td>(.17)</td>
</tr>
<tr>
<td>Traditional Style</td>
<td>f</td>
<td>871</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>(.87)</td>
<td>(.13)</td>
</tr>
</tbody>
</table>

A one-way ANOVA (Table 15) showed that there was no significant main effect on persistence rates by residence types ($F = 2.72; p = .06$). This implies that residence type had no significant influence on how the first-year students persisted over the given time.

**Table 15.** ANOVA: Persistence Rates by Residence Type – First-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>2</td>
<td>0.60</td>
<td>0.30</td>
<td>2.72</td>
<td>.06</td>
</tr>
<tr>
<td>Error</td>
<td>1343</td>
<td>148.73</td>
<td>0.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1349</td>
<td>149.34</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 16, for second-year students who returned to their residential communities, the persistence rates for the academic-based residence population was 0.81 ($f = 527$), the persistence rates for interest-based residence population was 0.71 ($f = 16$), and the persistence rates for traditional style residence population was 0.78 ($f = 789$).
Table 16. Persistence Rates by Residence Type – Second-Year Students.

<table>
<thead>
<tr>
<th>Residence Type</th>
<th>Persisted</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Academic-Based</td>
<td>527 (.81)</td>
<td>127 (.19)</td>
<td></td>
</tr>
<tr>
<td>Interest-Based</td>
<td>16 (.71)</td>
<td>8  (.29)</td>
<td></td>
</tr>
<tr>
<td>Traditional Style</td>
<td>789 (.78)</td>
<td>228 (.22)</td>
<td></td>
</tr>
</tbody>
</table>

A one-way ANOVA (Table 17) showed that there was no significant difference between the three residence types on persistence (overall $F = 2.18; p = .11$). It was therefore concluded that there was no significant residence type main effect on persistence rates for second-year students.

Table 17. ANOVA: Persistence Rates by Residence Type – Second-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>2</td>
<td>0.72</td>
<td>0.36</td>
<td>2.18</td>
<td>.11</td>
</tr>
<tr>
<td>Error</td>
<td>1692</td>
<td>281.08</td>
<td>0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>1694</td>
<td>281.80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Research Question 3

What is the relationship between gender and residence type on persistence rates for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic learning community or 3) interest-based learning community.
To determine if there was a relationship between gender and residence type on persistence rate, a 2 x 3 factorial ANOVA test was conducted. Table 18 provides a summary table for the relationship between gender and residence type on persistence rate for first-year students.

**Table 18.** 2 x 3 ANOVA: Gender and Residence Type on Persistence Rates – First-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td>0.13</td>
<td>0.14</td>
<td>1.25</td>
<td>0.26</td>
</tr>
<tr>
<td>Residence</td>
<td>2</td>
<td>0.63</td>
<td>0.32</td>
<td>2.87</td>
<td>0.06</td>
</tr>
<tr>
<td>Gender*Residence</td>
<td>2</td>
<td>0.00</td>
<td>0.003</td>
<td>0.03</td>
<td>0.97</td>
</tr>
</tbody>
</table>

As seen in Table 18, for first-year students, gender ($F = 1.25, p = 0.26$) and residence type ($F = 2.87, p = 0.06$) have no significant main effect on persistence rates. Also, their interaction effect is not significant ($F = 0.03, p = 0.97$). This implies that neither gender nor residence type had any significant relationship, nor any significant interaction, on how first-year students persisted over the given time period. A graphical representation of this relationship is shown in Figure 11.
Figure 11. Interaction graph for gender for residence type among first-year students.

Table 19 gives the 2 x 3 factorial ANOVA for the results of the relationships between gender and residence type on persistence rate among second-year students. It shows that gender ($F = 0.00, p = 0.99$) and residence type ($F = 2.45, p = 0.08$) had no significant main effect on persistence rates. Also, their interaction was not significant ($F = 0.18, p = 0.84$). This implies that neither gender nor residence type had any significant influence, nor any significant interaction, on how second-year students persisted over the given time period.

Table 19. 2 x 3 ANOVA: Gender and Residence Type on Persistence Rates – Second-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.99</td>
</tr>
<tr>
<td>Residence</td>
<td>2</td>
<td>0.81</td>
<td>0.40</td>
<td>2.45</td>
<td>0.08</td>
</tr>
<tr>
<td>Gender*Residence</td>
<td>2</td>
<td>0.06</td>
<td>0.03</td>
<td>0.18</td>
<td>0.84</td>
</tr>
</tbody>
</table>
A graphical representation of this lack of significant interactive relationship is shown in Figure 12.

**Figure 12.** Interaction graph for gender for residence type among second-year students.

**Research Question 4**

What is the relationship between ethnicity and residence type on persistence rates for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

A 3 x 4 factorial ANOVA summary table is as shown in Table 20 demonstrates that among first-year students there was no significant ethnicity ($F = 1.85; p = 0.15$) or residence type ($F = 2.56; p = 0.07$) main effects on persistence rate. Also, their interaction ($F = 0.90; p = 0.46$) was not significant. It was concluded that there was no significant residence type main effect, nor interaction effect, on residence types and persistence rates for first-year students.
Table 20. 3 x 4 ANOVA: Ethnicity and Residence Type on Persistence Rates – First-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>2</td>
<td>0.41</td>
<td>0.20</td>
<td>1.85</td>
<td>0.15</td>
</tr>
<tr>
<td>Residence</td>
<td>2</td>
<td>0.57</td>
<td>0.28</td>
<td>2.56</td>
<td>0.07</td>
</tr>
<tr>
<td>Ethnicity*Residence</td>
<td>4</td>
<td>0.40</td>
<td>0.10</td>
<td>0.90</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Figure 13 provides further highlights of the non-significant interaction effect between persistence rates and ethnicity for first-year participants.

![Interaction Plot for Persistence](image)

**Figure 13.** Interaction graph for ethnicity and residence type on persistence rate among first-year students.

A 3 x 4 factorial ANOVA summary table is as shown in Table 21 demonstrates that among second-year students there was no significant ethnicity ($F = 1.75; p = 0.17$) nor a significant residence type ($F = 1.78; p = 0.16$) main effect on persistence rates. Also, the interaction effect was not significant ($F = 1.26; p = 0.28$). It was concluded that there was no
significant residence type main effect, nor an interaction effect, on residence types and persistence rates for second-year students.

Table 21. 3 x 4 ANOVA: Ethnicity and Residence Type on Persistence Rates – Second-Year Students.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>2</td>
<td>0.57</td>
<td>0.28</td>
<td>1.75</td>
<td>0.17</td>
</tr>
<tr>
<td>Residence</td>
<td>2</td>
<td>0.58</td>
<td>0.29</td>
<td>1.78</td>
<td>0.16</td>
</tr>
<tr>
<td>Ethnicity*Residence</td>
<td>4</td>
<td>0.82</td>
<td>0.20</td>
<td>1.26</td>
<td>0.28</td>
</tr>
</tbody>
</table>

Figure 14 provides further highlights of the non-significant interaction effect between persistence rates and ethnicity for second-year participants.

Figure 14. Interaction graph for ethnicity and residence type on persistence rate among second-year students.
CHAPTER FIVE
CONCLUSION AND RECOMMENDATIONS

Over the last forty years there has been a tremendous change in the role of higher education. These ivory towers that once provided a temporary reprieve for students trying to find their place in the world now are instrumental in the preparation of individuals for highly competitive positions within a very selective workforce. Increased access, technological innovation, emerging globalization, greater accountability and dwindling financial resources have dramatically altered the way in which society and higher education view the post-secondary educational experience. “Traditional models of higher education are no longer sufficient to respond to society’s needs” (Shapiro & Levine, 1999, p. 14). In part, due to the increased demand for accountability, higher education has been forced to re-evaluate the educational experience and its contribution to student academic success and institutional persistence. The teaching-centered philosophy which once dominated higher education has now given way to a more interactive learning-centered educational philosophy. Learning communities have emerged in response to these changing roles by creating multidimensional student experiences engaging students and their peers in holistic collaborative learning opportunities (Shapiro & Levine, 1999).

Living learning communities do not replace or create a new core curriculum. They simply represent a new approach to teaching and learning. The research by Tinto (1993) and Astin (1993) form the foundation of many of today’s living learning models. Their research postulates
that student engagement is instrumental in the development of student success and institutional persistence. Vincent Tinto’s Model of Institutional Departure demonstrated that when students are able to integrate their formal and informal academic experiences with that of their formal and informal social community, they develop a much deeper level of commitment to the institution (Tinto, 2003). It is the integration between the academic learning experience with social interaction, and most importantly peer interaction and acceptance, which will result in a greater commitment to the learning process and most importantly the institution. Tinto (1993) believed that this increased interaction would result in higher levels of student satisfaction and commitment, increased faculty and peer collaboration, stronger institutional ties; and, ultimately greater academic success and higher levels of persistence.

Astin (1993) believed that the link between student involvement and learning outcomes was based on the active participation of the individual. Astin (1999) felt educators should focus less on course content, but instead focus on how to motivate students so they will dedicate more time and energy to their own learning process. The goal after all is to maximize the amount of time and energy students are dedicating in becoming active participants in their own educational process. It is the level of academic success and personal development which is directly proportionate to the quality and quantity of student involvement (Astin, 1985).

The results of this study provided the findings and summary of student outcomes at the University of South Florida. Sections in this chapter include: 1) Summary of Study, 2) Principle Findings, 3) Implications and Discussion of the Results, 4) Recommendations for Future Research and 5) Conclusion.
SUMMARY OF FINDINGS

The following section contains a summary of the research problem, context, and methodology employed to answer the proposed research questions.

Problem Statement

The purpose of this study was to explore the relationship between the independent variables of gender, ethnicity and types of residences and dependent variables of high school GPA (HSGPA), academic success and persistence rates among first-year and second-year students at the University of South Florida. Residence type was classified as: 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

This study also explored the variables of gender and ethnicity to determine any relationship between specific residential communities with academic success and persistence rates. An additional analysis utilizing a regression analyses was conducted to investigate the relationship between high school GPA and academic success as measured by the end of Fall 2012 GPA for both first-year and second-year students.

Despite numerous research efforts into the impact of living learning communities on students, researchers are still trying to determine which specific models and variables are the most effective for increasing academic success and persistence rates (Astin, 1993; Tinto, 1993, 2003; Upcraft, Gardner, Barefoot & Associates, 2005). This study was designed to answer the following four quantitative research questions.

1. What is the relationship between high school GPA, type of residence for first-year and second-year students at the University of South Florida and academic success as measured by GPA? Residence type was classified as 1) traditional style residence
community, 2) academic-based learning community or 3) interest-based learning community.

2. What is the relationship between the type of residence for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic learning community or 3) interest-based learning community.

3. What are the relationships between gender and residence type on persistence rates for first-year and second-year students at the University of South Florida, where persistence rates is measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic learning community or 3) interest-based learning community.

4. What are the relationships between ethnicity and residence type on persistence rates for first-year and second-year students at the University of South Florida, where persistence rate is measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic learning community or 3) interest-based learning community.

**Research Setting**

The population for this study came from first-year and second-year students who were assigned to one of three specific types of residential communities in the Fall of 2010 and 2011 at
the University of South Florida. The University of South Florida is a large urban research institution located in Tampa Florida. It is one of the three Florida public universities classified by the Carnegie Foundation for the Advancement of Teaching in the top tier of research activities, a distinction attained by only 2.2 percent of all universities.

The sample participants for this study were drawn from 1,350 first-year and 1,695 second-year students who were assigned to reside in University sponsored living learning communities or traditional style living communities. Participants in this study were assigned to one of three different types of residential communities: 1) those who were assigned to academic-based living learning communities, 2) those who were assigned to interest-based living learning communities and 3) those who were assigned to traditional style residential communities. Only those participants who were assigned to a specific residence type community in the Fall of 2010 and 2011 at the University of South Florida were included in this study.

Methods

To answer the research questions proposed in this study in determining if there were any statistically significant differences and/or relationships in the four research questions, this research utilized an analysis of variance (ANOVA) to compare the amount of between-groups variance in individuals’ scores with the amount of within-group variance. A one-way ANOVA as well as a 2 x 3 and 3 x 4 factorial ANOVA were conducted to determine if there were any significant relationships between genders, ethnicity and residence type on academic success and persistence rate. If significance was found a follow up Post hoc tests using Tukey HSD was used to determine the level of significance. An ANOVA allowed for the testing of differences between all groups and for more accurate probability statements.
The analysis of variance allowed for a more robust and precise inference by estimating and removing variances due to factors built into the design. This research design also provided more accurate estimates of the error variances. This statistical analysis tested for the statistical significance of each variable and the combined influence of the variables under investigation. The use of archival historical data will assist in developing comparative studies when analyzing future trends in residential communities at the University of South Florida.

In addition, an analysis was conducted to explore the relationship between high school academic GPA, Fall 2012 GPA and type of residence community using an analysis of covariance (ANCOVA). Regression analyses were conducted to predict academic success from high school GPA. Finally, a Tukey-Kramer adjustment for multiple comparisons was used controlling for high school GPA, Fall 2012 GPA and residence types among participants. If the ratio of between-groups variance to within-group variance is sufficiently high, this indicates that there is more difference between the groups in their scores on a particular variable than there is within each group – identified as an F-ratio’’ (Gall et al., 2006, p. 307).

Finally, due to the importance of persistence rates in this investigation it was decided to remove those participants who had not persisted within their original residential community from Fall 2010, or 2011, to Fall 2012 when looking at academic success. This allowed for a more vigorous and defined analysis of academic success among participants.
PRINCIPLE FINDINGS

This research used four research questions to determine the relationships between the variables previously described. A summary of the findings are presented in this section.

Research Question One

The first research question focused on the relationship between academic success and type of residence for first-year and second-year students at the University of South Florida. The research question was stated as follows: What is the relationship between high school GPA, type of residence for first-year and second-year students at the University of South Florida and academic success as measured by GPA? Residence types are classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

A one-way ANOVA showed that there was one significant difference in academic success between a pair of residence types \( (F = 12.23; \ p < .0001) \) for first-year participants. As such, it was concluded that there was a significant residence type main effect in at least one pair of residence types on academic success among first-year students. Post hoc tests using Tukey HSD showed significantly higher mean academic success for the academic-based residence type as compared to interest-based and traditional style residence types.

Data for second-year students demonstrated that there was one significant difference in academic success by residence type \( (F = 32.56; \ p < .0001) \). It was therefore demonstrated that there was a significant residence type main effect in at least one pair of residence types on academic success among participants. Post hoc tests using Tukey HSD showed significantly higher mean academic success for the academic-based residence types as compared to interest-based and traditional style residence types.
An additional analysis was conducted to determine any predictability between high school GPA (HSGPA) and Fall 2012 GPA among first-year, and second-year, participants and residence type. As demonstrated, in the ANCOVA, those first-year, and second-year, students who resided in academic-based residence communities had higher levels of academic success in high school when compared to the other two residence type communities. Data demonstrated that there was one significant difference between a pair of residence types for first-year participants ($F = 133.70; p < .0001$), and one significant difference between a pair of residence types for second-year participants ($F = 238.32; p < .0001$). Post hoc tests using Least Square Means with a Tukey-Kramer adjustment for multiple comparisons showed significantly higher mean academic success for the academic-based residence types as compared to traditional style residence types.

A regression analysis suggested that a significant proportion of the total variation in college academic success was predictable by high school GPA. Multiple R squared results indicated that among first-year students approximately 25.74% of these variations in academic were accounted for by HSGPA and 35.3% for second-year students. These results imply that there was a significant predictability for college academic success based on HSGPA in at least one pair of residence types among first-year, and second-year, participants. It was therefore concluded that high school GPA had a significant effect on academic success by academic-based residence types. There was not a significant difference found in the interest-based residence type participants. This may have been due to the low statistical power due to the sample size of this group.

**Research Question Two**

The second research question measured the relationship between persistence rates and type of residence community for first-year and second-year students at the University of South
Florida. The research question was stated as follows: What is the relationship between the type of residence for first-year and second-year students at the University of South Florida and persistence rates as measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities? Residence type was classified as 1) traditional style residence community, 2) academic learning community or 3) interest-based learning community.

A one-way ANOVA showed that there was no significant main effect on persistence rates by residence types ($F = 2.72; p = .06$). In addition, a one-way ANOVA test on second year students showed no significant difference in persistence among the three residence types on persistence rates, ($F = 2.18; p = .11$). This implies that residence type had no significant influence on how the first-year, or second-year, students persisted over the given time.

**Research Question Three**

The third research question measured the relationship between gender and type of residence type on persistence rates for first-year and second-year students at the University of South Florida. The research question was stated as follows: What are the relationships between gender and residence type on persistence rates for first-year and second-year students at the University of South Florida, where persistence rates is measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and assigned to specific residence type communities in the Fall 2012 semester? Residence types are classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

A 2 x 3 factorial ANOVA was conducted to assess the relationships between gender and residence type on persistence rates for first-year and second-year students. Data showed first-
year students, gender ($F = 1.25, p = 0.26$) and residence type ($F = 2.87, p = 0.06$) demonstrated no significant main effect on persistence rates. Also, their interaction effect is not significant ($F = 0.03, p = 0.97$). An analysis of the relationships between gender and residence type on persistence rate among second-year students showed gender ($F = 0.00, p = 0.99$) and residence type ($F = 2.45, p = 0.08$) have no significant main effect on persistence rates. Also, their interaction is not significant ($F = 0.18, p = 0.84$). This implies that neither gender nor residence type had any significant influence on how first-year, or second-year, students persisted over the given time period, nor was there any interaction effect between the two.

**Research Question Four**

The fourth research question measured the relationship between ethnicity and residence type on persistence rates for first-year and second-year students at the University of South Florida. The research question was stated as follows: What are the relationships between ethnicity and residence type on persistence rates for first-year and second-year students at the University of South Florida, where persistence rate is measured by the proportion of students who first matriculated in the Fall of 2010 or 2011, and were assigned to specific residence type communities in the Fall 2012 semester? Residence types are classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community.

A 3 x 4 ANOVA was conducted to identify any relationships between ethnicity and residence type as they relate to institutional persistence rates. Ethnicity was broken down into four categories which included White, Black, Latino/Hispanics and all “Others”. Data demonstrates that among first-year students there was no significant ethnicity ($F = 1.85; p =$
0.15) or residence type ($F = 2.56; p = 0.07$) main effects on persistence rate. Also, their interaction ($F = 0.90; p = 0.46$) was not significant.

Data for second-year students showed no significant ethnicity ($F = 1.75; p = 0.17$), on persistence rate, or residence type ($F = 1.78; p < 0.16$) main effects on persistence rates. The interaction effect was also not significant ($F = 1.26; p = 0.28$). This implies that neither ethnicity nor residence type had any significant influence on how first-year, or second-year, students persisted over the given time period, nor was there any interaction effect between the two.

**IMPLICATIONS AND DISCUSSION OF THE RESULTS**

The findings of this research study indicated that the level of academic success among first-year and second-year students showed a significant difference in at least one pair of residence types. These findings indicated that members of the academic communities, when compared to interest-based and traditional style participants, had greater levels of academic success.

A comparative analysis of the relationship between high school grade point averages and Fall 2012 GPA showed a significant difference in at least one pair of residence types for first-year, and second-year participants. A simple regression analysis suggested that a significant proportion of the total variation in college academic success was predictable by high school GPA. These results show that high school GPA could be considered a good predictor of college academic success among first-year, and second-year, students participating in academic-based learning communities. However, it should be kept in mind that these students were already exhibiting higher academic success prior to their participation in a living learning community. As such, one might consider that living learning communities simply continued to nurture participant’s academic success and that participation was not a direct cause.
A review of the relationship between gender and residence type on persistence rates for first-year students found that neither gender nor residence type had any significant influence on how community members persisted over the given time period. Results for second-year students showed no significantly higher persistence rate for those females or males by residence type. Finally, data demonstrates that among first-year, and second-year, students there was no significant relationship between ethnicity and persistence rates.

Not all these findings were consistent with the theoretical models of involvement and student engagement by Astin (1993) and Tinto (1993). These results may have been unique to this study. A longer-term study may have revealed more significant differences between first-year and second-year participants as they would have had more time to mature and engage in additional comprehensive and meaningful experiences within the residential communities. These findings are important for university administrators, faculty and student affair professionals to consider when examining the development and implications associated with living learning communities.

Finally, there are several implications which are inherent within living learning communities. The findings in this research investigation were not consistent with other findings and may be limited to this particular study and sample groups. While the implications are not all-inclusive they are worth considering when discussing the design, implementation and participation associated with living learning communities.

- Participation is positively associated with student achievement, social development, cognitive growth and institutional persistence rates.
- The benefits of participation are not strictly limited to members of the community. Non-members may benefit from in-direct influences associated with these communities.
- Financially, it is more economical to retain current students when compared to recruiting new students.
• Collaborative partnerships between academic and student affairs enhance institutional relationships at all levels.
• Utilizing current academic and residential institutional infrastructures allow for a reduction in programmatic and facility costs.
• Assessment of programs and services can be done swiftly and adjustments made rapidly.
• Established programs provide opportunities for alumni and community members to connect with the institution and current students.
• Members often develop self-sufficient groups which interact both in and outside of the classroom setting increasing institutional ties.

**Academic Success**

An analysis of variance was conducted to examine the data to identify any relationships between academic success and residence type for first-year and second-year students at the University of South Florida. Residence type was broken down into three categories which included academic-based, interest-based and traditional style residential communities. These categories were then broken down into subcategories. Subcategories for academic-based residence types included: 1) the Zimmerman Advertising 2) Bull’s Business 3) Engineering 4) Pre-Nursing 5) ROTC and 6) Honors communities. Interest-based residence type subcategories included: 1) Transfer students, 2) Green community, 3) Wellness and 4) Leadership communities. Traditional style residence types included: 1) Beta, 2) Caster and 3) Popular Halls.

After completing an analysis of variance for first-year and second-year students in each of these subcategories, there was one significant difference between the academic-based, interest-based and traditional style residence type communities. It was found that those participants who resided in academic-based residence communities had a significant higher level of academic success when compared to either interest-based or traditional style residence communities. This supports findings by Pike, Schroeder and Barry (1997) who found that students in living learning communities with an academic emphasis had greater gains in general education. Part of this can be explained by their involvement with course specific activities,
interaction with faculty members and pre-college attributes and professional goals and expectations which influenced their choices of residential communities.

The results in this study were anticipated based on current literature and research. Many of the positive benefits associated with residential communities (e.g.: higher academic success and increased persistence rates) are thought to be directly related to student’s level and quality of interaction both in and out of the classroom. Selecting to live within a campus residential community provides an environment conducive for increased interaction with peers, faculty members and institutional resources leading to higher academic success and increased persistence rates (Astin, 1984; Blimling, 1999; Inman & Pascarella, 1998; Inkelas & Weisman, 2003). Norwood (2010) found that student involvement in academic programs and activities outside of the classroom increased academic success, not only in first-year participants, but second-year participants as well.

There are several possible explanations for the increase in academic success for first-year and second-year participants residing in academic-based communities. These students who were assigned to academic living learning communities may have settled on an academic major requiring additional focus and time, or utilized additional residential, academic, institutional or social resources. These individuals may have had a competitive advantage academically, financially and socially due to the increased support provided in their academic-based community. Members of these communities may have participated in community specific programs and activities as well as potential leadership opportunities such as peer mentors, admission advisors or program advisors, resulting in a stronger tie to their residential community and their own specific major. This would further demonstrate the advantages of active
participation in academic-based living learning communities as early as possible in order to facilitate academic success among members.

Some specific programs worth mentioning which may have directly impacted the results of these participants include some very particular academic related programs unique to each of the sub-categories within the academic-based residence communities. These sub-categories included: 1) the Zimmerman Advertising 2) Bull’s Business 3) Engineering 4) Pre-Nursing 5) ROTC and 6) Honors communities. All of these communities are assigned full-time faculty members responsible for creating campus and community based professional experiences emphasizing these individual academic areas. Members of the Bull’s Business program, for example, attend company tours, practice business etiquette in real-life scenarios, and network with alumni from the College of Business. Engineering members have a built-in network of peer support, tutoring services and academic support programs as part of their residential community. Members of the Zimmerman Advertising community have unique academic and industry-specific opportunities not available to other students at USF. These opportunities included dinners with the dean and faculty, networking opportunities with Tampa Bay leaders and a variety of company tours. These additional experiences, programs and resources may have resulted in additional faculty, peer and community interaction among residents creating a stronger sense of purpose and persistence within each of these communities. This in turn would have enhanced the quality and frequency of interaction among participants, peers and the USF academic community resulting in higher levels of academic success. According to Pope, Miklitsch and Weigand (2005) the first-year experiences are pivotal in creating a sound educational foundation which will influence academic success.
Based on current literature and research one might postulate that those students who participated in academic-based living learning communities would have a higher level of academic success, when compared to the other residence types being investigated. Therefore, this observed significant difference for first-year, and second-year, residence types was not unexpected.

Pike, Schroeder and Barry (1997) found in their study that the higher levels of campus involvement were much greater for those students participating in learning communities when compared to those residing in traditional style residence halls. Graunke and Woosley (2005) found that increased faculty involvement, programs aimed specifically at second-year students, and opportunities for positive faculty interaction, increased the levels of academic success. This directly relates to the consistent theory that students with increased levels of campus involvement develop closer ties to the community, and the institution, resulting in stronger levels of academic success. The residential component provides a natural environment for peer cohorts to interact both in and out of the classroom raising the statistics for positive academic and social growth. This reinforces the persistence theory which states that the added advantage of living within a living learning community further enhances the persistence level to the institution giving students an additional academic advantage (Tinto, 1993).

One reason that there may have been a significant residence type main effect on academic success among second-year students could be that those participants who selected to return were already high achievers. These innate abilities and personal goals which lead these students initially to become members of a specific academic or interested-based residence community may have placed them academically at a higher level. These students simply maintained their higher level of academic success from their first-year to their second-year. Research shows that
involvement in living learning communities have a significant positive relationship, not only on academic success, but persistence over time. Astin (1999) believed that the link between student involvement and learning outcomes was based on the active participation of the individual. As participants in these communities these first-year and second-year students would have had significant interaction with their peers, faculty and resources associated with their communities. All of this may have helped maintain participant’s levels of persistence and academic success over time.

Typically one would anticipate that of the three residence types under investigation one would find a significant higher level of academic success for those participants residing in academic style residence communities, as stated this was the case in this study. However, in addition to some of the reasons outlined above, academic style community members may have had several additional variables which further enriched the additional resources and opportunities associated with this type of living learning community. All of which may have impacted participants levels of academic success. Many of these participants in the academic style community may have decided on academic majors resulting in a renewed and strengthened level of institutional engagement. Some of these students may have successfully overcome financial difficulties and were able to access additional resources which would assist in continuing their educational pursuits. Family, peer or employment influences may have increased student focus on future goals and aspirations of graduation and success. It is possible that these students developed personal and professional relationships within the intuition resulting in a commitment to faculty, staff and the institution. This improved level of engagement, or elements of each of these variables, may have influenced the level of perseverance resulting in an increase in academic success by these community members. This in turn may have allowed these academic
style community members to improve their levels of academic success so that they exceeded both the interest-based and traditional style participants in this study.

Living learning communities are an intricate part of the residential experience and the influence does not stop with these communities, or its members. Members of the academic style communities could have been indirectly impacted by their association with the other two living learning communities. This could be an extension of the first-year models presented by Tinto and Astin (1993) demonstrating that universities cannot simply make a commitment to entering students, but must provide support and resources throughout a student’s academic career. Academic style community members may benefit greatly from additional resources and interaction among members of living learning communities, whether this interaction was direct or indirect.

One final area to review which may have had an influence on college academic success among participants in this research study were high school grade point averages and their relationship to residence types. “Success in college is predicated upon success in high school. Intuitively this just makes sense, and as a result, students who perform well in high school are rewarded with scholarships and are courted by colleges seeking their admission” (Smith, Droddy & Guarino, 2011, p. 1). For decades researchers have studied the validity of high school GPAs as it relates to academic success at various colleges employing the review of HSGPA scores in their admission processes. In this study it was demonstrated that both first-year and second-year participants showed significant residence type main effect on academic success. Data suggest that a significant proportion of the total variation in college academic success was predictable by high school GPA. As such, high school GPA could be considered a good predictor of college academic success among first-year and second-year participants.
While these findings may be "intuitive" for most educators it is important to consider some of the varying factors which may have contributed to this relationship. One area to consider are the opportunities now offered by many states to enhance the high school experience by offering concurrent or dual enrollment courses. These educational experiences provide students with the ability to receive both Carnegie units and college credits simultaneously (U.S. Department. of Education, 2010). This will in turn provide a stronger preparatory educational experience for those planning on attending college. In the case of this study, those students who were selected to participate in academic-based communities requested to participate in very specific living learning communities. It stands to reason that many of these participants had been planning their college careers since high school and were already preparing for the rigorous academic requirements once they entered college. Once their transition was made from high school to college these students may have simply carried forward the academic habits and study skills which made them successful in the past. Also, as active members of a specific academic-based community they may have furthered their academic success utilizing the additional resources provided by their specific academic-based community. Finally, intrinsic and/or extrinsic motivational factors may have influenced these students throughout high school. As members of a specific academic-based living learning community, these motivational factors may have been instrumental in their choice of residential community and their academic success at the college level.

The No Child Left Behind Act supports standards-based educational reform. This Act puts pressure on states, and school districts, to set specific standards in establishing measurable goals, ideally improving individual outcomes in education (Smith, Droddy & Guarino, 2011, p. 1). When considering the implications to develop assessment skills one might conclude that the
benefits of such policies and procedures would ultimately result in students who are well prepared for academic success, both in high school and in college. The influence of the No Child Left Behind Act may have had a direct and indirect impact on the academic success, and preparedness, of this study's participants. These influences may have included: increased level of expectations by the school district, academic competition among peer groups and a level of academic measurement utilized by the aforementioned academic-based communities when selecting applicants as part of the overall admissions selection process.

Persistence Rates

Researchers, educators and higher education administrators have devoted a considerable amount of time and energy to studying student persistence rates and academic success. In fact, as Tinto (1998) stated, few areas within the field of higher education have attracted as much focus and consideration as the issue of student persistence. Current literature review and research clearly demonstrates that there is an abundance of evidence supporting the position that living in a campus residential community has a positive impact on student persistence (Barefoot, 2000; Edwards & McKelfresh, 2002; Gardner, 1991; Purdie & Rosser, 2011). The interaction and involvement theories of Astin (1993) and Tinto (1993) provide a framework for student engagement and validate the importance of residency as it relates to persistence rates. Academic successes for first-year and second-year participants in particular are enhanced due to greater levels of institutional resources (Astin, 1993; Pascarella & Terenzini, 2005). This is especially true regarding these participants at the University of South Florida. Institutional resources are high for students who are selected to participate in academic-based and interest-based residential communities. These additional resources included: 1) faculty mentors and divisional support 2)
financial funding both academic and programmatic 3) peer mentors and 4) unique living-learning facilities designed to enhance the living and learning experience.

Results from the data in this research investigation indicated that there were no significant main effects on persistence rates by residence types for first-year or second-year community members. The findings in this research investigation are not consistent with other findings and may be limited to this particular study and sample groups. It is recognized by this researcher that the results in this study are atypical and may be restricted solely to this particular research investigation. Results from this study imply that residence type had no significant influence on how first-year, or second-year, students persisted over the given time period. An explanation for the lack of any significant main effect by participants may be the innate abilities and personal goals of these participants (Inkelas & Weisman, 2003). Participants pre-selected their residential community based upon their personal interest and professional goals. As active and engaged participants of their selected communities these participants may have utilized institutional and personal resources with greater consideration for both social and academic engagement.

An interesting finding by Hu (2011) indicates that academic engagement is not enough to infer increased persistence rates among participants. As members of these living learning communities these participants may have benefited from the increase in programs specifically designed to indoctrinate them into the academic and social structures of the University of South Florida. The increase in programs and social activities could explain these research results. The combination of high-level academic and high-level social engagement may have directly influenced the persistence rates among these community members. This further reinforces the importance of a well round residential community and vital student affairs program.
Another possible explanation for these results regarding persistence rates may be the academic and social structure within each of the specific living learning communities. As mentioned previously, each subcategory within the residential communities at the University of South Florida provides enhanced social and academic opportunities all of which impact the level of satisfaction by residential members regardless of their assigned community. Some of these opportunities involved increased faculty and peer interaction, opportunities to practice business etiquette in real-life scenarios and networking with alumni, just to name few. These variables in combination with the residency requirement for participants would explain the increase in academic-success and persistence rates among all residential students.

Additional variables to consider regarding the results for persistence may be due to pre-college attributes. Pre-college attributes “. . . race, gender, socioeconomic status and pre-college academic success” (Rowan-Kenyon, Soldner & Inkelas, 2007, p. 759), and specific personal and professional goals may have influenced the level of involvement and engagement of participants. These factors may have contributed to an increase in the utilization of institutional resources, both academic and social, directly influencing the persistence rate among all community members. This demonstrates the added benefit of participation in residential communities and the advantages leading to an increase in institutional persistence (Tinto, 1993). Data collected by Pascarella and Terenzini (2005) showed statistically significant effects on the levels of student persistence rates from a student’s first-year to their second-year. They concluded that the first-year of college “. . . may well be the single best predictor of student success” (2005, p. 396), even when adjusting for pre-college attributes.

Physical facilities may also have played a role in lack of significant main effect in this study. This study did not include an analysis of the impact of architectural design and facility
usage and their impact on participant's academic success or persistence rates. Because each residence type in this study is housed in a different type of residential facility, the architectural design and usage of the assigned facility may have influenced involvement and the satisfaction levels of the participants. There are several examples where specific residence types where assigned and maintained unique residential services and functions. The first example includes the interested-based residence communities which provide a physical location in which all community, and non-community, members could partake in programs and activities. Another example can be found in the wellness community where participants had access to cooking and fitness classes. Members of the Green community participated in decomposition projects to fertilize their own plants and gardens. They also participated in Recyclemania, ConservaBull and numerous sustainability projects around campus.

There have been multiple studies examining the academic and non-academic benefits associated with residential communities in terms of college outcomes (Hotchkiss, et al., 2006; Paine, 2007; Zhao & Kuh, 2004). The additional personnel and institutional resources associated with these communities may have impacted the levels of engagement and community satisfaction resulting in a stronger persistence rate for these community members. The ability to combine personal interests, academic work and career experiences may have increased the satisfaction and engagement levels of community members resulting in the desire to continue their residence type experience and remaining with the University of South Florida.

Another possible explanation to consider regarding the lack of statistical significance between residence types and persistence rates may be due to several of the common characteristics associated with residential communities. Some of these characteristics may include: social interaction, community traditions and celebrations, faculty and staff involvement.
and educational objectives. Members residing within these residential type communities share distinct needs, educational goals, unique identities and specific boundaries for membership. These characteristics are worth investigating to determine the impact of these variables on the level of persistence rates among the three types of residence communities.

The development of institutional traditions, celebrations, collaborative academic and social programs, as well as institutional services are additional variables which may have impacted the lack of statistical significance between these sample groups and persistence rates. The strength of well-established residential programs, assessment tools and services form an intricate part of the residential experience at the University of South Florida. Though they may vary from community to community these programs and traditions are specifically targeted to each specific residence community and their members. This may explain the increased levels of satisfaction, faster responses to assessment results and stronger relationships between academic affairs and student affairs. While we would typically expect academic-based communities to have higher persistence rates, followed by interest-based and traditional style, a combination of these variables may explain the lack of statistical significance for persistence rates among participants in this study.

Persistence rates among participants may also been impacted by the types of course work taken by first-year and second-year students. First-year and second-year students share many of the same types of general education courses. Even when assigned to a living learning community, or a traditional style community, there are core prerequisites we can expect students to take during their first two years of college. While some of the communities in this study have some very specific academic and social resources, and we would expect a higher level of persistence from these communities, there are a plethora of academic and social resources aimed
specifically at the first-year and second-year experience for all residential students. These well-established programs may have directly impacted those members of the traditional style residence type communities resulting in an increase in persistence rates to the level established by those residing in academic-based and interest-based communities.

The University of South Florida’s residential system provides a variety of academic and social tools to assist with student success. Undergraduate students depart their institutions early because they feel a disconnection between their expectations and their perceived reality of the institutional experience. Because residential communities have additional support and specific personal and professional goals residential students have the freedom to explore and utilize multiple academic and social support structures increasing their likelihood of remaining with the institution. These qualitative engagement opportunities and experiences form the foundation for successful institutional persistence.

**Gender**

Tinto (1993) stated that levels of institutional persistence varied with gender. He believed that the persistence rates for female students were higher than their male counterparts, even when facing external pressures which could interfere with their academic and social responsibilities. Current research and literature supports findings which indicate that those students who are actively engaged in academic-based living learning communities have higher academic success scores (Astin, 1984; Blimling, 1999; Inman & Pascarella, 1998; Inkelas & Weisman, 2003). The findings in this study do not support these conclusions and may be unique.

Results from the data in this research investigation indicated that there was no significant main effect on persistence rate and no significant interaction effect among first-year or second-year participants. It is recognized by this researcher that the results in this study are atypical and
may be restricted solely to this particular research investigation. Results from this study imply that neither gender nor residence type had any significant influence on how first-year, or second-year, students persisted over the given time period.

The report by King (2010) “Gender Equity in Higher Education: 2010” stated that the gender gap in higher education may be stabilizing. Females for the last decade have maintained a 57-43% majority in regards to undergraduate education. Typically we would anticipate a higher level of significant rates in persistence for male participants. A possible explanation for the lack of significant main effect on persistence rate and interaction effect among participants may be due to several factors. First, faculty members may be increasing the levels of interaction with female students, overcoming antiquated stereotypes and barriers. Second, female students may be taking advantage of additional institutional resources resulting in a growing interest in possessing self-sufficient resources leading to greater independence, self-confidence and intrinsic motivation to strive for success (King, 2010). Finally, as confidence and aptitudes increase the number of female students electing to advance their educational experience is growing, resulting in a direct correlation in persistence rates.

It is worth considering some of the other possible reasons regarding these results. Research by Conger and Long (2010) examined gender gap and persistence rates for female university students in Texas and Florida. First, male students registered and completed fewer credit hours and earned lower grades than females during their first semester in college. Conger & Long found that male students were disproportionately taking courses in Business, Engineering, Computer Science and Natural and Physical Sciences, resulting in about a 10% lower cumulative GPA. As a result female students earned higher GPAs (2010). Also, females were more likely “...to apply for, receive, and respond to tuition and other post-secondary
support” (Conger & Long, 2010, p. 22). This would obviously decrease the cost of attendance and increase the level of persistence among female participants impacting the levels of academic success as well as persistence rates among participants.

An explanation as to why there was no significant main effect on persistence rate and no significant interaction effect among first-year or second-year participants may have been due to the prescribed benefits associated with specific residential communities. Students may have benefited from additional institutional social interaction with like-minded peers, programs and interaction with faculty, staff and external community members. As participants continued to build relationships, succeed academically and utilize institutional and community resources they may have developed increased levels of confidence and aptitudes resulting in stronger persistence rates. Participation in a residential community, despite the academic or social focus, may have results in both cognitive and affective growth in all participants of this study impacting institutional ties and ultimately residential and institutional persistence.

**Ethnicity**

Over the last several decades, much research has been conducted in higher education focusing on the impact of underrepresented minority groups. Current literature review and research show White students as having higher persistence rates when compared to other ethnic groups. The findings in this research investigation were not consistent with other findings and may be limited to this particular study and sample groups. Data demonstrated that among first-year, and second-year, students there were no significant ethnicity or residence type main effects on persistence rate. Also, their interaction was not significant.

Possible explanations for no significant ethnicity or residence main effect on persistence rates may be due to other variables besides ethnicity. In this particular study persistence rates for
White, Latino/Hispanics and Black students were relatively the same. Due to the low numbers of other ethnic groups in this sample those not categorized as White, Latino/Hispanics, or Black students were categorized as “Others”. Because of the significant low representation in this study their omission from these results was warranted. There are several variables according to Upcraft, Gardner, Barefoot & Associates (2005) which can be directly attributed to institutional persistence. These variables include: prior academic success, socioeconomic status, gender, ethnicity, family support and the individual’s commitment to graduation. These characteristics were validated by the AFT Higher Education (2003) on the risk factors associated with student persistence rates in college.

Other variables which may have influenced the results of this study are the unique support structures associated with these residence communities in the form of: 1) academic and financial advising, 2) faculty, staff and peer mentoring and 3) social engagement designed to enhance student integration and involvement within their living learning communities and the University of South Florida campus. The fact that there was no statistical significance in persistence rates based on ethnicity could be as a result of a lack of specific intervention strategies within the living-learning community that were unique to the needs of the participants. One aspect which may warrant further investigation is the level of experience and commitment by instructors. For example, it is conceivable that the level of experience and commitment may vary greatly between a graduate assistant and a tenured faculty member. The lack of experience and commitment may contribute to the failure of program outcomes because activities necessary to bring about the desired progress did not occur. Any future investigations to determine the influence of living learning communities and persistence rates among ethnic groups should
consider examining the levels of interaction and teaching experience of faculty members who are associated with these residence communities.

While income level, nor first-generation, data were gathered in this study there are some assumptions we can discuss when considering the unique results in this study. Low-income, first-generation colleges, students face numerous barriers which may impact their educational experience. These barriers may include lower amounts of grant aid, tuition costs, academic under-preparedness and lack of general knowledge regarding higher education. Each of these variables, according to Tinto (1993), can have an indirect influence on the decision to depart from the institution by impacting “...the continuing formulation of individual intentions and commitments regarding future educational activities” (p. 115). It may be that the institutional resources benefited ethnic groups to such a degree that they found themselves able to rise to the persistence level of their White compatriots. The findings in this research investigation are not consistent with other findings and may be limited to this particular study and sample groups. The use of ethnicity as the sole moderating variable to evaluate persistence rates in this research investigation may have skewed these results.

As mentioned previously, White students traditionally have higher persistence rates when compared to other ethnic groups. Latino/Hispanics tend to Fall in between White students and are followed up by Black students who historically have less financial resources and lower pre-college attributes. Academically this ranking is persistent and, according to Hu and St. John (2001), reinforces previous findings which demonstrate how higher academic success is directly related to institutional persistence. The use of ethnicity as the only variable to determine which type of living learning community is beneficial for student persistence may not be adequate.
One possible explanation for these results may be due to very specific programs and services available to participants. These residential communities tend to recruit individuals who have very specific interests towards intrinsic goals and objectives. These intrinsic motivational factors may drive students to seek out both academic and social experiences with the hopes of improving themselves and their community. This may in turn increase their levels of community engagement and involvement resulting in greater institutional commitment and satisfaction, resulting in higher persistence rates among these participants. This follows closely Astin’s (1985) theory of involvement where the level of student learning and personal development are directly proportionate to the quality and quantity of student involvement.

**RECOMMENDATIONS FOR FUTURE STUDY**

Based on the findings from this study, the following are recommendations for future research which would further enhance the understanding of the living learning phenomena presented in this dissertation.

1. As with most research studies, questions regarding the validity of data collection and interpretation of data results must be addressed. McMillian and Schumacher (2010) have identified several threats to external and internal validity in research studies. External validity refers to the extent that the results may be generalized to other people, times and contexts. Because of the limitations inherent in utilizing a single institution, future researchers are encouraged to replicate this study at other institutions in order to increase the generalizability of these results.

2. Residential communities possess several unique programmatic features which limit the generalizability of this study. Students may self-select to participate in living learning communities and as a result motivational and engagement
variables may vary from community to community. This study was designed to measure academic success and persistence rates of participating students. Further investigation as to what influences contributed to the students self-selecting a specific living learning community may reveal additional information. For example, did students recognize the need for additional academic support, were they influenced by family or an advisor or did the community address a specific extrinsic or intrinsic need?

3. There were no controls over the departmental and institutional resources given to each residential community. Despite the goal of a seamless learning environment between academic and student affairs the amount of financial and personnel resources were not addressed, or assessed. Each residential community in this study had their own specific faculty, or staff, advisor whose responsibility was to create in-class and out-of-class educational opportunities to enhance academic success and persistence rates among community members. This study did not address nor evaluate the effectiveness of departmental or institutional resources as possible influencing variables in this study. This may be an area in which researchers might seek to control in future investigations.

4. The predominant indicator for predicting academic success, persistence and time towards degree completion for most institutions is grade point average performance. Pascarella and Terenzini stated that grades are “. . . hardly a perfect measure of learning and intellectual development” (2005, p. 396). Grade point averages tend to compare student’s performance rather than specific intellectual gains, or critical thinking skills. In addition, grading standards, testing and
individual instructor bias can result in large discrepancies in grading scales and grade point averages, not only within academic departments but across institutions as well. Researchers replicating this study may wish to investigate how to account for the variances and discrepancies in measurements due to grading standards, testing and individual instructor bias.

5. The learning community experience provides both academic and social opportunities both in and out of the classroom. These may include increased interaction with faculty, peers and community members. These communities also provide unique access to additional university programs, activities and resources, which may enhance engagement and contribute to academic performance and persistence rates over time. Additional analysis of these supplementary academic and social opportunities could assist institutions in creating additional stratagems to enhance participant’s attitudes towards involvement and engagement. This will then assist in determining which university supported programs, activities and resources are most effective in influencing academic success and persistence rates of participants.

6. The goal of this study was to show how participation in living learning community may be instrumental in student academic success and institutional persistence. However, the sample size of this study warrants additional research into this investigation. The sample sizes from these three different residence types were relatively small and a larger sample size would provide more robust results. Future researchers may include additional academic semesters, and additional
types of living learning communities, to this study in order to identify any dependable patterns that may emerge.

7. This study examined the relationships between academic-based, interest-based and traditional residence types. By design, living learning community students reside on campus. Students who did not reside on campus in University housing were not included in this investigation. Future studies may benefit by controlling for residential status to further clarify the impact of such programs on academic success and persistence rates.

8. Data from this study measured outcomes on the basis of cumulative grade point averages earned during the academic year. This study did not explore the ‘reflective practices’ of students. Reflective practices refer to the capacity to reflect on past, present and future experiences so as to engage in a process of continuous learning. Examination of student participation and insight into their reflection practices and experiences may provide additional insight and support associated with their participation into these programs.

9. Future researchers may wish to explore the impact of continued association in these specific residence type communities through the third and fourth year of participation. Does continued participation in these specific residence type communities’ impact academic success and persistence rates at the University of South Florida?

10. The results for gender and ethnicity persistence rates were not what were expected from this study. Future studies may want to consider focusing specifically on
additional academic terms, specific majors or special institutional resources targeted at increasing persistence rates among these sample groups.

CONCLUDING REMARKS

This quantitative study explored the relationship between living learning communities, academic success and persistence rates on first-year and second-year students who were assigned to a specific residential community in the Fall of 2010 and 2011 at the University of South Florida. This study examined the relationship between the independent variables of gender, ethnicity and types of residences and dependent variables of high school GPA (HSGPA), academic success and persistence rates among first-year and second-year students at the University of South Florida. Residence type was classified as 1) traditional style residence community, 2) academic-based learning community or 3) interest-based learning community. It also explored the variables of gender and ethnicity to determine any relationship between specific types of residential communities with academic success and persistence rates. This study sought to add breadth and depth to institutional approaches towards living learning communities which would impact student success as measured by academic success and institutional persistence rates.

Over the last several decades higher education has seen an increasing demand for accountability. Living learning communities are one way to accomplish this objective of accountability by “. . . encouraging the integration of curriculum and allowing faculty to teach and students to learn in more interdisciplinary, intellectually stimulating, and challenging ways” (Upcraft, Gardner, Barefoot & Associates, 2005, p. 375). Results of the successful integration of these objectives may be identified by examining student outcomes such as academic success scores and persistence rates. Founded in the theoretical framework of Astin and Tinto, these
student retention and social integration theories have been instrumental in analyzing trends in student involvement, persistence rates and academic success. As a result educators are able to develop specific strategies to assist in the creation of learning-centered environments conducive to student success.

The evidence in this study strongly supports the effectiveness of living-learning communities in developing environments conducive to academic success. It also recognizes the importance and influence of high school grade point averages on college academic success. Results from the data in this research investigation indicated that there were no significant main effect on persistence rate and no significant interaction effect among first-year or second-year participants, either by residence type, gender or by ethnicity. It is recognized by this researcher that the results in this study are atypical and may be restricted solely to this particular research investigation. Additional research is needed to investigate any relationship between residence type and persistence rates. Those curriculums designed around student interests play a significant role in both academic success and persistence rates. Faculty members must challenge current teaching and learning methods and approach curriculum design from a viewpoint where instructional and learning methods are seen as a collaborative educational exploration between teacher and student. The goal of education after all is to challenge students and prepare them to be life-long learners and positive contributing members of society.
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