STUDENT ENGAGEMENT THEORY: A COMPARISON OF JESUIT, CATHOLIC, AND CHRISTIAN UNIVERSITIES

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This research study analyzed the results of the Jesuit Universities Consortium in comparison with the results of the Catholic Colleges and Universities and the Council for Christian Colleges Consortia as measured by the 2005 National Survey of Student Engagement (NSSE) in order to determine and identify any statistically significant differences between the consortia. One-way ANOVA analyses and Tukey HSD post hoc comparisons were conducted on the data from freshmen/first year students and seniors/fourth year students on each of the five clusters of the NSSE to determine any statistically significant difference and, subsequently, the effect size of any found differences.

The study found that there were statistically significant differences on the following: 1) freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Council for Christian Colleges and Universities Consortium on the NSSE cluster of Academic Challenge, 2) freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Catholic Colleges and Universities Consortium on the NSSE cluster of Enriching Educational Experiences, 3) freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Council for Christian Colleges and Universities Consortium on the NSSE cluster of Supportive Campus Environment, 4) seniors/fourth year students in the Jesuit Universities Consortium and the seniors/fourth year students in the Catholic Colleges and Universities Consortium on the NSSE cluster of Supportive Campus Environment.
NSSE cluster of Active and Collaborative Learning, and 5) seniors/fourth year students in the Jesuit Universities Consortium and the seniors/fourth year students in both of the Catholic Colleges and Universities and the Council for Christian Colleges and Universities Consortia on the NSSE cluster of Supportive Campus Environment. While statistically significant differences were found in the aforementioned analyses, effect sizes were small for all. Future research studies, including longitudinal studies, are needed to fully investigate levels of student engagement within the three consortia.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
</tr>
</tbody>
</table>

## Chapter

1. INTRODUCTION

   Statement of Problem ...................................................... 5
   Purpose of the Study ....................................................... 6
   Research Questions ......................................................... 6
   Theoretical Framework ..................................................... 6
   Significance of the Study .................................................. 8
   Definition of Terms ....................................................... 9
   Limitations ........................................................................... 11
   Delimitations ....................................................................... 12
   Organization of the Study .................................................. 12

2. REVIEW OF THE LITERATURE

   Introduction ........................................................................ 13
   Ignatius of Loyola ............................................................ 13
   Jesuit Higher Education ..................................................... 16
   The Jesuit Tenets of Higher Education .................................. 17
   Jesuit Higher Education in the United States Today .............. 20
   Student Engagement .......................................................... 23
   College Student Experience Questionnaire ......................... 26
## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Survey of Student Engagement</td>
<td>28</td>
</tr>
<tr>
<td>Administration of the National Survey of Student Engagement</td>
<td>34</td>
</tr>
<tr>
<td>Other Surveys of Student Engagement</td>
<td>36</td>
</tr>
<tr>
<td>National Survey of Student Engagement Consortia</td>
<td>38</td>
</tr>
<tr>
<td>Catholic Colleges and Universities Consortium</td>
<td>38</td>
</tr>
<tr>
<td>Council for Christian Colleges and Universities</td>
<td>39</td>
</tr>
</tbody>
</table>

### 3. RESEARCH METHODOLOGY

- Introduction                                                           | 50   |
- Research Questions                                                      | 50   |
- Research Design                                                         | 51   |
- Procedures for the Collection of Data                                  | 51   |
- Data Sources for the Study                                             | 52   |
- Procedures for the Analysis of the Data Sources                         | 53   |
- Summary                                                                | 55   |

### 4. PRESENTATION OF FINDINGS

- Introduction                                                           | 56   |
- Presentation of Findings from Freshmen/First Year Students              | 56   |
- Presentation of Findings from Seniors/Fourth Year Students              | 59   |

### 5. SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

- Introduction                                                           | 63   |
- Summary of the Findings                                                | 63   |
<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Level of Academic Challenge Criteria</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Active and Collaborative Learning Criteria</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Student Interactions with Faculty Members Criteria</td>
<td>31</td>
</tr>
<tr>
<td>4</td>
<td>Enriching Educational Experiences Criteria</td>
<td>32</td>
</tr>
<tr>
<td>5</td>
<td>Supportive Campus Environment Criteria</td>
<td>33</td>
</tr>
<tr>
<td>6</td>
<td>Institutions of the 2005 NSSE Jesuit Universities Consortium</td>
<td>41</td>
</tr>
<tr>
<td>7</td>
<td>Institutions of the 2005 NSSE Catholic Colleges and Universities Consortium</td>
<td>42</td>
</tr>
<tr>
<td>8</td>
<td>Institutions of the 2005 NSSE Council for Christian Colleges and Universities Consortium</td>
<td>43</td>
</tr>
<tr>
<td>9</td>
<td>Number of Freshmen/First Year and Senior/Fourth Year Respondents on Level of Academic Challenge per 2005 NSSE Consortia</td>
<td>44</td>
</tr>
<tr>
<td>10</td>
<td>Number of Freshmen/First Year and Senior/Fourth Year Respondents on Active and Collaborative Learning per 2005 NSSE Consortia</td>
<td>45</td>
</tr>
<tr>
<td>11</td>
<td>Number of Freshmen/First Year and Senior/Fourth Year Respondents on Student Interactions with Faculty per 2005 NSSE Consortia</td>
<td>46</td>
</tr>
<tr>
<td>12</td>
<td>Number of Freshmen/First Year and Senior/Fourth Year Respondents on Enriching Educational Experiences per 2005 NSSE Consortia</td>
<td>47</td>
</tr>
<tr>
<td>13</td>
<td>Number of Freshmen/First Year and Senior/Fourth Year Respondents on Supportive Campus Environment per 2005 NSSE Consortia</td>
<td>48</td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION

A key principle of a Jesuit education is cura personalis, Latin for “care for the whole person.” “The approach begins with a deep respect for [the student] as an individual and [his or her] potential” (Fordham University, n.d.). From the idea of cura personalis, another key principle of magis, Latin for “more,” follows. In the 1500s, magis was a calling by Ignatius of Loyola, the founder of the Jesuits, and for his followers to discover what more they could do for Jesus Christ, their church, and their community. “St. Ignatius frequently used the word magis…to exhort others to live more generously and give greater glory to God” (Seattle University, n.d.). Today, one Jesuit institution defines magis as an institutional challenge for students “to strive for ever greater personal excellence in all aspects of life – intellectual, emotional, moral and physical” (Fordham University, n.d.). Using these educational foundations set by Ignatius of Loyola, 28 institutions in the United States currently serve more than 183,000 students (The Society of Jesus in the United States, n.d.).

Ignatius of Loyola grasped the significance and value of higher education a few years before his death (Buckley, 1998, p. 57). The Constitutions of the Society of Jesus, written by Ignatius, “were specifically and definitionally for the enterprises and life of the Society of Jesus, although they came in subsequent years to be taken as foundational for some other religious orders as well” (Buckley, 1998, p. 56). This design and plan of Jesuit higher education was developed and shared through the guidelines spelled out in Part IV of the Constitutions.
In the universities, Ignatius thought his educational ideal of an integration of faith, learning, and living could be raised to a more universal plane and the possibilities of the good that could consequently be accomplished extended significantly...for Ignatius, a university accomplishes more universally the “improvement in learning and in living” that is the function of education. (Buckley, 1998, p. 61)

In essence, Ignatius of Loyola desired the Jesuit institution of higher education to educate individuals who could and would use education for the betterment of the communities in which they live. This betterment of communities would require citizens to be engaged with their surroundings, beginning with students to be engaged within their classrooms and university setting. While this integrated approach to inside and out of the classroom learning was laid in the 1500s for Jesuit education, today's institutions of higher education still strive to integrate student classroom learning with his or her co-curricular activities in order for the student to develop as well as to be successful.

According to Kuh, Kinzie, Schuh, and Whitt (2005), “the extensive body of research on student development suggests another way to improve the chances that a student will succeed in college: focus on student engagement” (p.3). According to Kuh et al (2005), there are certain components that elevate student engagement levels, such as meaningful interactions between students and faculty, supportive environments, clearly identified and reasonable expectations, and mutual and shared learning. Through these arenas, students connect with their academic institutions, are active contributors to their learning experience, and are successful in achieving academic and personal success.
Due to increased discussions about the importance of student engagement, a new field of research within higher education has emerged. With a grant and support from the Pew Charitable Trusts, the National Survey of Student Engagement (NSSE) was conceived in 1998 (National Survey of Student Engagement, 2004). The pilot survey was administered to more than 75 selected colleges and universities (NSSE, 2004). The initial administration of the survey in the spring of 2000 saw more than 275 colleges and universities participate. Through NSSE, participating institutions acquire data on student involvement in campus experiences and events that foster learning and personal development. This data acquisition can lead colleges and universities to improve efforts in many areas of institutional effectiveness, such as retention, research, and accreditation (NSSE, 2004). Through the work of the NSSE, Dr. George Kuh and others have identified five clusters of student engagement: level of academic challenge, active and collaborative learning, student interactions with faculty members, enriching educational experiences, and supportive campus environment. While this discussion of student engagement has been a recent development in the field of higher education, the Jesuit philosophy of higher education has been incorporating components of engagement since its founding. This early awareness of student engagement is what separates the Jesuit colleges and universities from other Catholic and Christian, non-Catholic institutions.

While Jesuit higher education falls in line with the teachings and leadership of the Catholic Church, Ignatius developed his guidelines for Jesuit education with an emphasis on “the service of faith through the promotion of justice,” while other orders of Catholic priests founded their educational institutions to support and realize the mission
of the Catholic Church (Kolvenbach, 1989, p. 1). The Jesuit worldview for higher education includes some of the following themes:

- Essential need for discernment
- Emphasis on freedom
- Education is comprehensive
- Worldview is world-affirming
- Ample scope to intellect and affectivity in forming leaders (Kolvenbach, 1989, pp. 1-2).

When reviewing the themes of Jesuit education, some comparisons can begin to be made with the themes of highly effective institutions in regards to student engagement as described by George Kuh.

In Kuh’s (2003) Conceptual Framework for the NSSE, he mentions institutional environments that are “inclusive and affirming and where expectations for performance are clearly communicated and set at reasonably high levels” are critical for student learning (p.1). Six commonalities for Kuh et al’s (2005) Documenting Effective Educational Practice (DEEP) spotlighted institutions include the following themes:

- A “living” mission and “lived” educational philosophy
- An unshakeable focus on student learning
- Environments adapted for educational enrichment
- Clearly marked pathways to student success
- An improvement oriented ethos
- Shared responsibility for educational quality and student success (p. 24)
While the work of Kuh in student engagement theory clearly defines the areas in which institutions of higher education can achieve high levels of student engagement, does the guiding worldview of Jesuit higher education allow for high levels of student engagement and higher levels of student engagement than other institutions?

Statement of Problem

According to Kuh (2002), “[t]hose institutions that more fully engage their students in the variety of activities that contribute to valued outcomes of college can claim to be of higher quality compared with other colleges and universities where students are less engaged” (p. 1). As institutions of higher education face increasing amounts of pressure to sustain an appropriate and desired level of quality of services, resources, and students in order to attract, retain, and graduate students, colleges and universities need to be aware of, understand, employ, and evaluate programs, traits, and initiatives that can support institutional goals, such as student engagement. While the Jesuit tenets of higher education were first published in 1558, these tenets are the driving force behind the mission and vision of today’s Jesuit colleges and universities. Are these tenets suited to today’s view of student engagement? If so, is this historical foundation within Jesuit higher education unique in regards to levels of student engagement? Are the Jesuit tenets affecting levels of student engagement differently than the guiding principles of other religiously affiliated institutions? This quantitative study investigated the similarities and differences between the Jesuit Universities, Catholic Colleges and Universities, and the Council for Christian Colleges and Universities Consortia in regards to the 2005 results on the NSSE. NSSE data were used with permission from The Indiana University Center for Postsecondary Research.
Purpose of Study

The purpose of this study was to determine if there were any statistically significant differences between the Jesuit Universities Consortium’s results on the 2005 NSSE and the 2005 NSSE results of the Catholic Colleges and Universities and the Council for Christian Colleges and Universities Consortia.

Research Questions

1. As measured by the 2005 NSSE, do freshmen/first year students at institutions within the Jesuit Universities NSSE Consortium statistically differ on the NSSE clusters from freshmen/first year students at institutions within the Catholic Colleges and Universities and the Council for Christian Colleges and Universities NSSE Consortia?

2. As measured by the 2005 NSSE, do seniors/fourth year students at institutions within the Jesuit Universities NSSE Consortium statistically differ on the NSSE clusters from seniors/fourth year students at institutions within the Catholic Colleges and Universities and the Council for Christian Colleges and Universities NSSE Consortia?

Theoretical Framework

C. Robert Pace’s College Student Experience Questionnaire, Alexander Astin’s Student Involvement: A Developmental Theory for Higher Education, and Arthur W. Chickering & Zelda F. Gamson’s “Seven Principles for Good Practice in Undergraduate Education” inform this study’s research design.
In 1979, C. Robert Pace published *Measuring Outcomes of College: Fifty Years of Findings and Recommendations for the Future*. Through his research, Pace intended to use the existing data to do the following:

- identify the major overall changes in undergraduate college students and alumni that occur;
- relate these changes to self-perceptions of the role college played in them; and
- arrive at generalizations about institutional impacts from institutional research data, college self-studies, and comparative studies across institutions (Lenning, 1982, p. 488).

While reviewing the existing research in the 1970s, Pace was also creating the College Student Experience Questionnaire (CSEQ) and first administered the survey in 1979. “[T]he CSEQ Research Program formally moved its operations to Indiana University’s Center for Postsecondary Research and Planning in 1994, under the direction of Chancellor’s Professor, George D. Kuh” (Gonyea, Kish, Kuh, Muthiah, & Thomas, 2003, p. i).

In 1984, Alexander Astin published his theory on student involvement. The basic principle in his theory is that “students learn more the more they are involved in both the academic and social aspects of the collegiate experience” (Hutley, n.d.). In March 1987, Arthur W. Chickering and Zelda F. Gamson published their “Seven Principles for Good Practice in Undergraduate Education” in the *American Association for Higher Education Bulletin*. These principles are “[p]erhaps the best known set of engagement indicators” (Kuh, n.d., p. 1). These three pieces of research helped to inform this study as well as to shape the NSSE.
In February 1998, the Pew Charitable Trusts organized a group “to explore ways of understanding the extent to which institutions emphasize effective teaching practices and students engage in educationally purposeful activities” (NSSE Timeline, 2009, p. 1). This group began to discuss and design a national survey that could be used to assess student engagement. The group included Alexander Astin, Gary Barnes, Arthur Chickering, Peter Ewell, John Gardner, George Kuh, Richard Light, Ted Marchese, and C. Robert Pace (NSSE Timeline, 2009, p.1). The NSSE was created and piloted in 1999. In 2000, the first full administration of the NSSE was launched at four-year institutions by the Indiana University Centers for Survey Research and for Postsecondary Research, followed by the Community College Student Survey of Engagement (CCSSE) as piloted by the University of Texas at Austin in 2001 (NSSE Timeline, 2009, p.1). This study will use the four-year survey (NSSE) as all studied consortium institutions are four-year and administered the NSSE to their students in 2005.

Significance of the Study

As colleges and universities within the United States are under sharp scrutiny and examination by all stakeholders, institutions of higher education must be able to show learning and developmental outcomes as well as illustrate why those desired outcomes are legitimate goals in a highly competitive market for the best and brightest students as well as the most useful resources. The results of this study can assist Jesuit institutions in marketing their long-standing mission in contemporary student engagement concepts in order to attract and retain students and attain resources. By investigating and marketing these levels of student engagement, Jesuit institutions may
gain a competitive edge above other religiously-affiliated institutions as well as other colleges and universities.

This study provided a review of traditional, historical Jesuit tenets of higher education and the clusters of the NSSE and student engagement theory. After the review of Jesuit higher education and the NSSE, this study compared the results on the 2005 NSSE between the Jesuit Universities, Catholic Colleges and Universities, and the Council for Christian Colleges and Universities Consortia. By focusing on the data from the three Consortia on the 2005 NSSE, this study determined which type of institution best “represents student behaviors that are highly correlated with many desirable learning and personal development outcomes of college” (NSSE, n.d.).

Definition of Terms

**Cluster:** There are five clusters of effective educational practice used by the NSSE. The five clusters are level of academic challenge, active and collaborative learning, student interaction with faculty members, enriching educational experiences, and supportive campus environment (Kuh et al., 2005, p. 10).

**DEEP:** The Documenting Effective Educational Practices (DEEP) Project began “to identify colleges and universities that perform well in two areas: student engagement and graduation rates” (Kuh et al., 2005, p. 10). DEEP institutions consisted of twenty (20) colleges and universities that scored higher-than-predicted levels of student engagement as measured by the NSSE.

**Freshman/First Year Student:** As defined by the NSSE, a freshman/first year student is a lower-division student who has attended the institution for at least two terms (National Survey on Student Engagement, n.d.).
**Jesuit**: The Society of Jesus was founded in 1540 by St. Ignatius Loyola, a Basque nobleman and soldier, who found God in all things (U.S. Jesuit Conference, n.d.).

**Jesuit College or University**: There are 133 colleges and universities across the world affiliated with the Society of Jesus. In the United States, there are 28 Jesuit colleges and universities in 19 states. The 28 Jesuit institutions in the United States are among 221 Catholic colleges and universities nationwide (Association of Jesuit Colleges and Universities, 2007).

**Magis**: *Magis*, the Latin word for “more,” is a key principle in Jesuit spirituality. Taken from the Jesuit motto “Ad Majorem Dei Gloriam” (For the Greater Glory of God,) the idea of *magis* calls for followers to be more, do more, and give more (http://www.bc.edu/offices/mission/publications/guide/discernment.html).

**NSSE**: The National Survey on Student Engagement (NSSE) is an instrument used by colleges and universities to measure levels of student engagement. The NSSE was designed to study and assess “student behaviors that are highly correlated with many desirable learning and personal development outcomes of college” (Kuh, 2001, p. 2).

**NSSE Consortium**: A NSSE Consortium is a group of six or more colleges or universities participating in NSSE the same administration year that want to ask students additional questions that will follow the NSSE core survey. A consortium exists for many reasons including a common interest in a topic (e.g., Information Literacy), a similar institutional mission (e.g., Jesuit Colleges), and state or university systems that want to ask questions (e.g., California State University system).

(http://nsse.iub.edu/html/consortia.cfm)
Seniors/Fourth Year Student: As defined by NSSE, an upper-division student who has attended an institution for at least two terms (National Survey on Student Engagement, n.d.).

Student Engagement: According to Kuh, Kinzie, Schuh, and Whitt (2005), there are two key factors for engagement, with these factors being:

- The amount of time and effort students put into their studies and other activities that lead to the experiences and outcomes that constitute student success
- The methods and means a college or university allots its resources, human and other, as well as arranges educational experiences to promote student participation in these opportunities (Kuh, Kinzie, Schuh, and Whitt, 2005, p. 4).

Limitations

This study is limited by only using the results from the 2005 NSSE. Each consortium does not contain data from every institution that may fit under the criteria. For example, the Jesuit Universities Consortium does not contain the data from all 28 Jesuit institutions within the United States as not all Jesuit institutions participate in the NSSE.

This study is also limited by the data used from a 20% random sample of all freshmen/first year and seniors/fourth year U.S. students within each NSSE Consortium. This study also does not use any longitudinal data by comparing the results of the same group of students as freshmen/first year students and later as seniors/fourth year students.
Delimitations

This study is delimited by the use of theoretical framework regarding student engagement which focuses on studies which occur in the United States at four-year institutions of higher education. It is further delimited by the use of only one work of research on student engagement, the work of Kuh, Kinzie, Schuh and Whitt in *Student Success in College* (2005).

Organization of the Study

There are five chapters in this study. Chapter 1 provided the introduction, statement of problem, purpose of study, research hypotheses, significance of study, definitions of terms, and the limitations and delimitations of the study. Chapter 2 presented a current review of literature related to Jesuit higher education and student engagement. In Chapter 3, the methodology of the study, including the research hypotheses, the research design, and the procedures used for data analysis, was discussed. Chapter 4, the Data Analysis section, summarized the quantitative data. Finally, Chapter 5 discussed the findings of the study, constructed conclusions, and presented possible implications for institutions of higher education who are interested in putting into practice student engagement theories.
CHAPTER 2
REVIEW OF THE LITERATURE

Introduction

This review of the literature provided a broad overview of the life and legacy of St. Ignatius of Loyola, the tenets of Jesuit higher education, and the topic of student engagement as described and measured by the National Survey of Student Engagement (NSSE). This inquiry investigated the 2005 NSSE Jesuit Universities Consortium’s levels of student engagement compared against the 2005 NSSE Catholic Colleges and Universities Consortium and the 2005 NSSE Council for Christian Colleges and Universities Consortium. However, a review of the aforementioned topics is in order to comprehend the potential relationship between the areas. This literature review examined these topics in separate sections.

Ignatius of Loyola

“Ignatius of Loyola came to understand the importance of higher education only very late in his life, indeed just a few years before his death. Initially, the Jesuits had no intention of engaging in academic institutions” (Buckley, 1998, p. 57). With 3,730 Jesuit educational institutions throughout the world, the Jesuits have fully engaged and embraced academic institutions. Approved in 1558 by the First General Congregation, Ignatius of Loyola’s Constitutions of the Society of Jesus laid the foundation for not only the Jesuit order, but Jesuit higher education (Ganss ed., 1991). To fully understand the Jesuit principles of higher education, one must know about the order’s founder, Iñigo, who eventually became Ignatius of Loyola.
Born in 1491, Iñigo led a privileged life. He was well educated (knowing how to read and write) and was trained for court life by the age of fifteen (Ganss ed., 1991). In 1521, Iñigo served as a soldier in a resistance effort to a French invasion in Pamplona, Spain.

In the battle on May 17 a cannonball shattered the bone in one of his legs and inflicted a flesh wound in the other. Treated courteously by the French because of his bravery, he was carried on a litter to Loyola, which he reached in early June. After the surgery, which he bore with great fortitude, his condition deteriorated until he was near death, but after June 28, the vigil of Sts. Peter and Paul, he grew rapidly better. He attributed this to St. Peter. (Ganss ed., 1991, p. 14)

After his brush with death, Iñigo became Ignatius of Loyola and began his spiritual conversion. In August 1521, Ignatius was bed-ridden but remained energetic. Using his energy to read, meditate, and write, he began keeping spiritual notes. Through his readings, Ignatius started to create his worldview, which included doing everything for the greater glory of God. This worldview would shape his writings and the principles upon which the Jesuits were founded (Ganss ed., 1991).

Once Ignatius was healthy enough to travel, he made a pilgrimage in 1523 to Monserrat, Manresa, and, ultimately, Jerusalem. He wanted to remain in Jerusalem to visit the holy sites and convert people, but was forced to leave due to the dangerous political state of Jerusalem. Ignatius returned to Spain and arrived in Barcelona in 1524. “He now saw the necessity of an academic foundation if he was to employ his learning and experience effectively in helping his neighbors. Hence he decided to
remedy that deficiency. This resulted in ten years of university study” (Ganss ed., 1991, p. 35). While studying in Spain and France, Ignatius studied philosophy, logic, physics and Christian doctrine. During his studies, Ignatius penned his *Spiritual Exercises* and shared them with his friends “whom he hoped might join him in his way of living” (Ganss ed., 1991, p. 36).

Ignatius’ years in Paris were of great importance in giving his Exercises their final literary structure. Not long after his arrival in 1528 he gave them to other students who were not Spanish, and even to professors…Further still, he began to train his companions…to give the Exercises, and this must have had a profound effect on the literary form of the book. It was becoming a manual, not for himself alone, but also for other directors – which it has been ever since (Ganss ed., 1991, pp. 36-37).

The *Spiritual Exercises*, along with the *Constitutions of the Society of Jesus*, helped shape the Society of Jesus and its future endeavors, including education.

The Society of Jesus was approved by Pope Paul III in 1540 and Ignatius was elected superior general of the Jesuits in 1541. By 1556, the Jesuits were located in 12 provinces, including Brazil and India. Most villages, towns, and cities were in desperate need to create decent, functioning schools for their citizens. Through this need for teachers, Ignatius found a niche for the fledgling Society of Jesus. Ignatius’ drive for internationalization was rooted in his want to advance the “glory of God through the spiritual good of the neighbor” (Ganss ed., 1991, p. 46). Through this need for teachers, the Jesuits founded an educational institution at Gandia in 1545 and a college in Messina soon after that. Ignatius also internationalized Jesuit education by sending
Jesuits to Brazil in March 1549. By the time Ignatius died in 1556, an impressive 33 colleges were founded under the Society of Jesus.

Jesuit Higher Education

Even though Ignatius entered the field of higher education late in his life, he used his own knowledge and experience of university life in combination with his zeal for his religious order to begin and support one of the largest networks of educational institutions in the world. His commitment to higher education stemmed from his belief that universities could achieve more for the universal good than other institutions. “[H]is educational ideal of an integration of faith, learning, and living could…consequently be accomplished…significantly, especially since the graduates of the university may be able to teach with authority elsewhere what they have learned well in these universities of the Society” (Buckley, 1998, p. 61). As Ignatius fine-tuned his thoughts on the role of universities and higher education in the ministry of the Society of Jesus, he penned Part IV of the *Constitutions of the Society of Jesus*, which included a section that laid out goals and protocol for the governance of these educational institutions.

In December 1551, Ignatius discussed the method in which Jesuit colleges and universities should be founded. Courses in humane letters and philosophy were to be offered. Through this humanities-based curriculum, Ignatius believed that many benefits and preferential outcomes would befall the Society of Jesus, their students, and, ultimately, and their country. The hope of Ignatius was that these well-educated students would become involved citizens. The future vocations of these students ranged from becoming members of the Society of Jesus to government officials. “[S]ince the children of today become the adults of tomorrow, their good education in life
and doctrine will be beneficial to many others...This...is an early sketch of the comprehensive philosophy of Christian secondary and higher education which he finally presented in Part IV of his *Constitutions*” (Ganss ed., 1991, p. 48). Throughout the years, the guidelines listed in Part IV have evolved into four guiding tenets: (1) *magis* (the Latin word for “more”); (2) the humanities as the core of higher education; (3) the amalgamation and arrangement of studies with theology serving as the zenith of higher education; and (4) an integrated and global stance on higher education. These tenets have created the foundation for an intensive and extensive Jesuit educational network for over 450 years.

The Jesuit Tenets of Higher Education

In the last few years of his life, St. Ignatius began to value the importance of higher education in the role of the Society of Jesus as well as in the life of the educated individual.

Therefore all of us, desiring to preserve and develop the Society for greater glory and service to God our Lord have thought it wise to proceed by another path. That is, our procedure will be to admit young men who because of their good habits of life and ability give hope that they will become both virtuous and learned in order to labor in the vineyard of Christ our Lord. We shall likewise accept colleges under the conditions stated in the apostolic bull, whether these colleges are within universities or outside of them; and, if they are within universities, whether these universities are governed by the Society or not. For we are convinced in our Lord that in this manner greater service will be given to His Divine Majesty, because those who will be employed in that service will be
multiplied in number and aided to make progress in learning and virtues (Ganss, 1558/1970, pp. 172-173).

While some of Part IV of the Constitutions include specific instructions on the daily life of a Jesuit college or university, Part IV clearly spells out a concern and care for the wellbeing as well as the education of students.

While the idea of magis has developed over the years, its foundation can be located in the Constitutions. Students, or scholastics, are continually called upon to strive for the greater good.

In view of the objective which the Society seeks by means of its studies, toward the end of them it is good for the scholastics to begin to accustom themselves to the spiritual arms which they must employ in aiding their fellowmen; and this work can be begun in the colleges, even though it is more properly and extensively done in the houses (Ganss, 1558/1970, pp. 200-201).

In the Society of Jesus, using one’s knowledge to serve God in his/her community captures the spirit of magis (Jesuit Conference of the United States, n.d.).

The second tenet of Jesuit higher education includes the humanities as the core of higher education. While the ultimate end of a Jesuit education is to be of great service to God and community, Ignatius and the Jesuits determined that the humanities would be the path to which to achieve this goal.

Since the end of the learning which is acquired in this Society is with God’s favor to help the souls of its own members and those of their fellowmen, it is by this norm that the decision will be made, both in general and in the case of individual persons, as to what branches ours ought to learn, and how far they ought to
advance in them. And since, generally speaking, help is derived from the humane letters of different languages [A], logic, natural and moral philosophy, metaphysics, scholastic and positive theology [B], and Sacred Scripture, these are the branches which those who are sent to the colleges should study [C]. They will devote themselves with greater diligence to the parts which are more helpful for the end mentioned above, with circumstances of times, places, persons, and other such factors taken into account, according to what seems expedient in our Lord to him who holds the principal charge (Ganss, 1558/1970, pp. 187-188).

The Society of Jesus felt that the humanities should be discussed and debated on a frequent basis in order to further the learning of the student.

Theology serves as the pinnacle of higher education in the eyes of the Society of Jesus. Obviously, a religious order would consider theology the most important and valued field of study.

It would be good for them to have their degrees in theology or at least be fairly well versed in it, so that they know the interpretations of the Holy Doctors and the decisions of the Church, in order that this study of languages may be profitable rather than harmful (Ganss, 1558/1970, p. 192).

Ignatius and the Jesuits felt that most students studying theology would become members of the Society of Jesus. However, those who were not to become ordained Jesuits were also required to study theology in the same manner as those desiring to be Jesuits in order to reach the greater glory of God. "Even though there should be a considerable number of our own scholastics, it is not contrary to our Institute to admit
into the colleges someone who does not have the intention of becoming a member of the Society" (Ganss, 1558/1970, p. 182).

The final main tenet of Jesuit higher education involves an integrated and global stance on higher education. “It will belong to the general [leader of the Jesuits] to decide where it will be opportune to have such schools” (Ganss, 1558/1970, p. 199).

The Society of Jesus had sent priests into many nations to serve the greater glory of God. Since any community is a community in which a Jesuit may serve, it made sense to form colleges and universities in those communities. The Jesuits even planned to help students prepare to serve those communities by altering language course requirements.

When a plan is being worked out in some college or university to prepare persons to go among the Moors or Turks, Arabic or Chaldaic would be expedient; and Indian would be proper for those about to go among the Indians; and the same holds true for similar reasons in regard to other languages which could have greater utility in other regions (Ganss, 1558/1970, p. 214).

Even in 1558, Ignatius and the Society of Jesus regarded global experiences as necessary for the advancement of their work and mission.

**Jesuit Higher Education in the United States Today**

Currently in the United States, there are 28 colleges and universities that identify as Jesuit. Keeping with the writings of Ignatius, today’s Jesuit institutions of higher education strive to attract and retain students interested in modern fields of study with their deeply rooted traditions and tenets. In 1989, Peter-Hans Kolvenbach, the Superior General of the Society of Jesus, gave two key addresses describing the current themes
in Jesuit education. “Our purpose in education, then, is to form men and women ‘for others.’” (Kolvenbach, 1989, p. 1). Father Kolvenbach continued to lay out the plan for a value-oriented Jesuit education.

A value-oriented educational goal like ours – forming men and women for others – will not be realized unless it is infused within our educational programs at every level. The goal is to challenge our students to reflect upon the value implications of what they study, to assess values and their consequences for human beings (Kolvenbach, 1989, p. 3).

Through his leadership, Father Kolvenbach set a clear path for modern Jesuit institutions.

The Association of Jesuit Colleges and Universities (AJCU) serves the 28 institutions located in the United States. While each Jesuit institution has its own individual institutional mission, all Jesuit colleges and universities use Ignatian educational values to guide all endeavors. “Jesuit education has consistently sought to educate ‘the whole person’ intellectually and professionally, psychologically, morally and spiritually. Living in a ‘global village’ of great possibilities and deep contradictions, today’s whole person must be in solidarity with women and men around the world, with their needs, concerns, and potential” (AJCU, n.d., “Ethical Concern and Commitment to Justice,” para. 2). The ability of today’s Jesuit colleges and universities to adapt to the needs and demands of today’s students while staying true to its historical foundations as well as the ability to articulate and market these unique Jesuit attributes is critical for the success and survival of Jesuit higher education.

Our institutions make their essential contribution to society by embodying
in our education process a rigorous, probing study of crucial human problems and concerns. It is for this reason that Jesuit colleges and universities must strive for high academic quality. This amounts to something far removed from the facile and superficial world of slogans and ideology, of purely emotional and self-centered responses, and of instant, simplistic solutions. Teaching and research and all that goes into the educational process are of the highest importance in our institutions because they reject and refute any partial or deformed vision of the human person. This is in sharp contrast to educational institutions that often unwittingly sidestep the central concern for the human person because of fragmented approaches to specializations (Duminuco, 1995, para. 3).

The historical Jesuit commitment to care for and develop the whole person combined with a marketed and publicized dedication to help today’s students meet future needs demonstrates a desire to connect student engagement with the Ignatian teachings.

Father Robert Wild, the President of Marquette University, a Jesuit institution located in Milwaukee, Wisconsin, articulated this:

[W]e seek to instill in students a passion for pursuing knowledge not simply for self-betterment but also so that they are better prepared to serve the world and its needs. Furthermore, in both the core courses and in the specific academic major or majors that our students choose, as well as in their experience of campus life apart from the classroom, we want them to understand better and reflect upon the demands, not least ethical demands, that will be placed on them both in their professional careers and in ordinary human life (Wild, 2006, 13).
By demonstrating an understanding of and appreciation for the needs and desired of the modern college student combined with the historical perspective on education, today’s Jesuit colleges and universities have the ability to achieve high levels of engagement by meeting the five clusters of Kuh’s student engagement theory.

   Student Engagement

   In 1967, Nevitt Sanford published *Where Colleges Fail* in order to draw attention to the need for students to have life-changing and challenging experiences in order to create quality citizens. Institutions of higher education can create an environment in which students are supported, yet challenged.

   It is time for us to act on the knowledge that education is not a matter of how much content has been poured into the student and that educational growth is not a one-to-one correspondence with lectures attended. Dramatic changes can begin in a moment, under the right circumstances, regardless of the amount of material covered. Most often these circumstances will involve a personal encounter between the student and an admired faculty member (Sanford, 1967, p. 8).

   Sanford has described the central and crucial components of student engagement, specifically the interactions students have with members of the institution, such as faculty members. With its many different environments in which to connect, the college or university is a partner in this practice of engagement with the student. Using Sanford’s work, the college or university can no longer assume that students are unwilling or unable to participate in their own development and must create opportunities for students to be engaged and involved.
In 1984, Alexander Astin unveiled his theory of student involvement. Simply stated, the more a student is involved with his or her academic and co-curricular experiences, the more he or she will learn. While institutions are obligated to play a significant role in providing these academic and co-curricular opportunities and experiences, Astin’s theory was different from other theories of his time as students are also obligated to play a critical role in their development.

According to Astin, his theory of involvement has an advantage over traditional pedagogical approaches because it focuses on the motivation and behavior of the student. Therefore all institutional policies and practices can be judged by the degree of involvement they foster in [the] student” (Hutley, n.d.). Astin also posits that students’ time is one of the most important resources available. Because students have other matters that vie for their time and attention, Astin’s theory challenges institutions to be the most effective and efficient with experiences that enhance learning and involvement during the time students devote to their academic experience. “…Astin states that the most important teaching is that instructors are encouraged to take the focus off the course content and their own technique and put it on their students” (Hutley, n.d.). Obviously, this supports the notion that one area of potential student engagement includes inside the academic classroom.

Tinto (1997) views the classroom as one of the primary environments in which to foster student engagement. “If academic and social involvement or integration is to occur, it must occur in the classroom…Quite simply, the more students invest in learning activities, that is, the higher their level of effort, the more students learn” (Tinto, 1997, pp. 599-600). While the classroom may be the most natural place for
engagement and connection, most college students find the classroom to be a place of low to no engagement and interaction.

Though it is apparent that the college classroom is, for many if not most students, the only place where involvement may arise, it remains the case that most college classrooms are less than involving. At the same time, students continue to take courses as detached, individual units, one course separated from another in both content and peer group, one set of understandings unrelated in any intentional fashion, to what is learned in another setting (Tinto, 1997, pp. 601-602).

Through research and practical application, Tinto (1997) has found support for “the basic tenets of learning communities and the collaborative pedagogy that underlies them” (p. 613).

In a changing and competitive environment, institutions of higher education must be able to attract and retain students of all levels of experience and accomplishments. But, the question remains on how colleges and universities can carry out this desired goal. Research indicates that high levels of student engagement matter more than level of experience and accomplishment. “What students do during college counts more for what they learn and whether they will persist in college than who they are or even where they go to college” (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005, p. 8).

[S]tudent engagement has two key components that contribute to student success. The first is the amount of time and effort students put into their studies and other activities that lead to the experiences and outcomes that constitute student success. The second is the ways the institution allocates resources and
organizes learning opportunities and services to induce students to participate in and benefit from such activities (Kuh et al., 2005, p. 9).

Colleges and universities struggle with meeting this definition for student engagement.

In order to attain high levels of student engagement, an institution must use good educational practices. “Emphasizing good educational practice helps focus faculty, staff, students, and others on the tasks and activities that are associated with higher yields in terms of desired student outcomes” (Kuh, n.d., p. 1). Chickering and Gamson (1999) state that the following seven standards are crucial and essential for colleges and universities to be in good practice:

- Encourages student-faculty contact
- Encourages cooperation among students
- Encourages active learning
- Gives prompt feedback
- Emphasizes time on task
- Communicates high expectations
- Respects diverse talents and ways of learning (p. 77)

While the aforementioned standards can be shaped into desired student outcomes, colleges and universities need an assessment tool to provide support for operating systems and programs as well as desired changes and/or additions to current systems.

College Student Experience Questionnaire

One tool for assessment, the College Student Experience Questionnaire (CSEQ), was created and administered by C. Robert Pace in the 1970s at the University of California Los Angeles (UCLA). This instrument “is a versatile tool that
assesses the quality of effort students expend in using institutional resources and opportunities provided for their learning and development” (CSEQ: General Info, n.d.). After 15 years at UCLA, the official operation and administration of the CSEQ moved to the Indiana University’s Center for Postsecondary Research and Planning and under the direction of Dr. George Kuh. In its current format as fourth edition, Pace & Kuh’s CSEQ has been dispensed at more than 500 institutions with over 180,000 responses (Williams & Salinas Holmes, n.d.). The purpose of the CSEQ is designed to measure the following:

- the quality of effort undergraduate students invest in using educational resources and opportunities provided for their learning and development;
- the students’ perceptions of how much the campus environment emphasizes a diverse set of educational priorities; and
- how the students’ efforts and perceptions relate to personal estimates of progress made toward a holistic set of learning outcomes (CSEQ: At A Glance, n.d.).

This assessment tool can be administered to any undergraduate student at any point after his or her first term of enrollment. The CSEQ measures the quality of students’ experiences whereas the National Survey of Student Engagement (NSSE) is used to measure what students and institutions do to promote student engagement (Williams & Salinas Holmes, n.d.). Based on the CSEQ, the NSSE is “intended to provide information about the extent to which colleges and universities exhibit characteristics and commitments to high-quality undergraduate student outcomes” (Chickering and Gamson, 1999, p. 78).
National Survey of Student Engagement

Through the work of Dr. George Kuh and his associates, the National Survey of Student Engagement (NSSE) began in 1999 with approximately 70 institutions participating in the administration of the survey. In 2000, the first national distribution occurred. “Five ‘Benchmarks of Effective Educational Practice’ are introduced in the inaugural 2000 Institutional Report [and] [t]he NSSE survey [is] hailed as an alternative to rankings that neglect the significance of the student experience” (NSSE Timeline, 2009, p.1). During the first few years of administering the NSSE, the first regional users groups were happening at the University of Akron (Ohio) and then for a group of Texas colleges and universities. Today, more than 600 colleges and universities participate in the NSSE (NSSE Quick Facts, 2007). Through their participation in the NSSE, institutions hope to determine the level of student engagement in the five clusters of effective educational practice. These clusters include:

- Level of Academic Challenge
- Active and Collaborative Learning
- Student Interactions with Faculty Members
- Enriching Educational Experiences
- Supportive Campus Environment (Kuh et al., 2005, pp. 11-13).

Each cluster plays an important and vital role in the area of student engagement. Tables 1 through 5 show the criteria that comprise each cluster of student engagement.
Table 1

*Level of Academic Challenge Criteria*

<table>
<thead>
<tr>
<th>Criteria</th>
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<tbody>
<tr>
<td>Amount of time and effort students devote to preparing for class</td>
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<tr>
<td>Reading assigned and other books</td>
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<tr>
<td>Writing reports and papers</td>
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<tr>
<td>The extent to which students engage in activities that require analyzing,</td>
</tr>
<tr>
<td>synthesizing, applying theories and making judgments</td>
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<tr>
<td>Performance standards that compel students to work harder than they</td>
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<tr>
<td>thought possible</td>
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<tr>
<td>The degree to which the college environment emphasizes spending time on</td>
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<tr>
<td>academic work</td>
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*Note:* (Kuh et al., 2005, p. 177)
Table 2

*Active and Collaborative Learning Criteria*

<table>
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<th>Criteria</th>
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<tbody>
<tr>
<td>Asking questions in class or contributing to class discussions or both</td>
</tr>
<tr>
<td>Making class presentations</td>
</tr>
<tr>
<td>Working with other students on class projects inside or outside of class</td>
</tr>
<tr>
<td>Tutoring other students</td>
</tr>
<tr>
<td>Participating in a community-based project as part of a course</td>
</tr>
<tr>
<td>Discussing ideas from readings or classes with other students, family members, or others outside of class</td>
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*Note:* (Kuh et al., 2005, p. 193)
Table 3

*Student Interactions with Faculty Members Criteria*

<table>
<thead>
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<tbody>
<tr>
<td>Talking about career plans with a faculty member or advisor</td>
</tr>
<tr>
<td>Discussing ideas from readings or classes with faculty members outside of class</td>
</tr>
<tr>
<td>Receiving prompt feedback from faculty on academic performance</td>
</tr>
<tr>
<td>Working with a faculty member on a research project</td>
</tr>
<tr>
<td>Working with faculty members on activities other than coursework (for example, committees, orientation, student-life activities)</td>
</tr>
<tr>
<td>Discussing grades or assignments with an instructor</td>
</tr>
</tbody>
</table>

*Note:* (Kuh et al., 2005, p. 207)
Table 4

*Enriching Educational Experiences Criteria*

<table>
<thead>
<tr>
<th>Criteria</th>
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<tbody>
<tr>
<td>Having serious conversations with students of a different race or ethnicity than one’s own</td>
</tr>
<tr>
<td>Having serious conversations with different religious beliefs, political opinions, and values</td>
</tr>
<tr>
<td>Using electronic technology to discuss or complete assignments</td>
</tr>
<tr>
<td>Participating in internships or field experiences, foreign language study, study abroad, community service, independent study, or a culminating senior experience</td>
</tr>
<tr>
<td>Participating in cocurricular activities</td>
</tr>
<tr>
<td>Having an institutional climate that encourages contact among students from different economic, social, and racial or ethnic backgrounds</td>
</tr>
</tbody>
</table>

*Note:* (Kuh et al., 2005, p. 219)
Table 5

Supportive Campus Environment Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
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<tbody>
<tr>
<td>Institutional emphasis on providing students the support they need for academic and social success</td>
</tr>
<tr>
<td>Positive working and social relationships among different groups</td>
</tr>
<tr>
<td>Help for students in coping with their nonacademic responsibilities</td>
</tr>
<tr>
<td>High-quality student relationships with other students, faculty, and the institution’s administrative personnel</td>
</tr>
</tbody>
</table>

Note: (Kuh et al., 2005, p. 241)

After administering the NSSE to over 1100 colleges and universities, Kuh and associates began to identify institutions who received “higher-than-predicted scores on the five clusters of effective educational practice” (Kuh et al., 2005, p. 10). Through this research, 20 diverse four-year institutions were identified as Documenting Effective Educational Practice (DEEP) institutions. While the 20 institutions reported higher-than-predicted scores despite their institutional differences, there were six identified common features for these DEEP schools:

- A “living” mission and “lived” educational philosophy
- An unshakeable focus on student learning
- Environments adapted for educational enrichment
- Clearly marked pathways to student success
- An improvement oriented ethos
- Shared responsibility for educational quality and student success (Kuh et al., 2005, p. 24).
These six features can be adopted by and adapted to any campus to increase levels of student engagement. “Those institutions that more fully engage their students in the variety of activities that contribute to valued outcomes of college can claim to be of higher quality compared with other college and universities where students are less engaged” (Kuh, n.d., p.1).

Administration of the National Survey of Student Engagement

Colleges and universities can reach the ideals of effective engagement through implementing an assessment tool, such as the NSSE, in order to gauge their current levels of effectiveness and identify areas for improvement.

The main content of the NSSE instrument, *The College Student Report*, represents student behaviors that are highly correlated with many desirable learning and personal development outcomes of college. Responding to the questionnaire requires that students reflect on what they are putting into and getting out of their college experience. Thus, completing the survey itself is consistent with effective educational practice (Kuh, n.d., p. 2).

The NSSE is administered to first year students and senior students in the Spring semester. The assessment tool solicits student feedback on their participation in dozens of activities that represent good education practice, such as using the institution’s human resources, curricular programs, and other opportunities for learning and development that the college provides. Additional items assess the amount of reading and writing students did during the current school year, the number of hours per week they devoted to schoolwork, extracurricular activities, employment, and family matters, and the nature of their examinations and
coursework. Seniors report whether they participated in or took advantage of such learning opportunities as being a part of a learning community, working with a faculty member on a research project, internships, community service, and study abroad. First-year students indicate whether they have done or plan to do these things. (Kuh, n.d., p. 2).

The approach of administering the assessment tool to first-year and senior students stems from the work of Pascarella and Terenzini.

The research of Pascarella and Terenzini (1991) substantiate their own hypotheses as well as provide support for previous research findings that “the college years are a time of student change on a broad front” (p. 557).

Students learn to think in more abstract, critical, complex, and reflective ways; there is a general liberalization of values and attitudes combined with an increase in cultural and artistic interests and activities; progress is made toward the development of personal identities and more positive self-concepts; and there is an expansion and extension of interpersonal horizons, intellectual interests, individual autonomy, and general psychological maturity and well-being. Thus, it can be said that the nature and direction of freshman-to-senior changes appear to be reasonably stable and to some extent predictable (pp. 563-564).

While findings have consistently shown change from freshman year to senior year, Pascarella and Terenzini (1991) advise researchers to be aware of the difference between change and development.

Whereas change simply means that some fact or condition at Time₂ is different from what it was at Time₁, development implies ordered, predictable, even
hierarchical shifts or evolution have taken place in fundamental, intra-individual structures or processes…This is not to say that the changes that occur during college merely represent the learning of social or cultural norms instead of important developmental steps. Rather, it is to suggest that we need to be wary of the tendency to equate the learning of social or cultural norms with development. It behooves us to bear in mind that change during the college years is produced by multiple influences, some internal (and perhaps ontogenetic) and others external to the individual (pp. 565-566).

Using an instrument, such as the NSSE, with a base of knowledge of research and clear institutional goals will allow colleges and universities to be efficient in affecting and monitoring the rates of change and development in students.

Other Surveys of Student Engagement

The Faculty Survey of Student Engagement (FSSE) and Beginning College Survey of Student Engagement (BCSSE) are two surveys administered by the Indiana University Postsecondary Center for Higher Education in addition to the NSSE. The FSSE was designed to be used in conjunction with the NSSE at “baccalaureate degree-granting colleges and universities that are concurrently administering the NSSE or have participated in the NSSE in the previous year” (Faculty Survey of Student Engagement, n.d.). The FSSE helps institutions assess four areas:

- Faculty perceptions of how often students engage in different activities
- The importance faculty place on various areas of learning and development
- The nature and frequency of faculty-student interactions
• How faculty members organize their time, both in and out of the classroom (Faculty Survey of Student Engagement, n.d.).

The FSSE helps institutions assess the expectations of faculty for student engagement in settings and practices that are proven to be associated with high levels of student learning and growth.

The Beginning College Survey of Student Engagement (BCSSE) asks high school students who are about to enter college about their experiences in high school as well as their expectations for their college experience. This survey can help institutions prepare programs and opportunities during the first year of college to help improve student learning. “BCSSE results, especially when linked with NSSE data, can be used to shape initiatives that align the first-year experience of students with recognized effective educational practices” (Beginning College Survey of Student Engagement, n.d.). BCSSE results can also be used to help with the following areas:

• Recruitment
• Assessment and improvement
• Curricular reform
• Academic advising
• Retention
• Faculty development
• Accreditation and self-studies
• First year program evaluation (Beginning College Survey of Student Engagement, n.d.).
The Indiana University Center for Postsecondary Research offers these surveys as a supplement to the NSSE. For the purposes of this study, only NSSE results were used.

National Survey of Student Engagement Consortia

Institutions participating in the NSSE can choose to start or join a consortium. “A NSSE consortium is a group of six or more colleges or universities participating in NSSE the same administration year that want to ask students additional questions that will follow the NSSE core survey” (NSSE, n.d.). NSSE Consortia can include colleges and universities interested in studying a certain topic; those that share an institutional mission; or fall under one administrative system, such as institutions that fall under a state system. The consortia may ask up to 20 additional questions that are exclusive to the consortium participating institutions. Involvement in NSSE Consortia allows colleges and universities to explore specific areas of interest in addition to levels of student engagement within the five clusters as described by NSSE. This study investigated the results on the NSSE clusters of student engagement by the 2005 Jesuit Universities Consortium, Catholic Colleges and Universities Consortium, and the Council for Christian Colleges and Universities Consortium. The data received only included indicators to which consortium the response belonged and if the response was from a freshman/first year or senior/fourth year student.

Catholic Colleges and Universities Consortium

The Association of Catholic Colleges and Universities (ACCU) was founded in 1899 “to promote and strengthen the mission and character of Catholic higher education in the United States and to serve as its collective voice” (Association of Catholic Colleges and Universities, n.d.). While Catholic institutions within the United States are
not governed by the ACCU, the Association serves as a place for member institutions to share ideas and to find mutual, shared opportunities for research and programs. There are 244 institutions identified as members of the ACCU, including Jesuit institutions (Association of Catholic Colleges and Universities, n.d.). While there are other organizations that serve Catholic institutions of education, the ACCU focuses solely on Catholic higher education.

Council for Christian Colleges and Universities

The Council for Christian Colleges and Universities (CCCU) is “an international association of intentionally Christian colleges and universities” (Council for Christian Colleges and Universities, n.d.). With 109 member institutions, the CCCU is not a body that represents all religiously affiliated institutions, but those that identify as being strongly committed to Christ-centered higher education. The mission of the CCCU is “to advance the cause of Christ-centered higher education and to help our institutions transform lives by faithfully relating scholarship and service to biblical truth” (Council for Christian Colleges and Universities, n.d.). Founded in 1976, the CCCU has grown to include a “$13 million budget, 69 employees and hundreds of volunteer leaders,” and over 100 programs and services to meet the needs of its members (Council for Christian Colleges and Universities, n.d.). The 13 institutions in the 2005 NSSE Council for Christian Colleges and Universities Consortium are all members of the CCCU.

Tables 6 through 8 list the institutions that participated in the 2005 Jesuit Universities, Catholic Colleges and Universities, and the Council for Christian Colleges and Universities Consortia. Tables 9 through 13 list the number of freshmen/first year students and seniors/fourth year students in each Consortia whose responses were
analyzed on each NSSE cluster. NSSE data were used with permission from The Indiana University Center for Postsecondary Research.
Table 6

*Institutions of the 2005 NSSE Jesuit Universities Consortium*

<table>
<thead>
<tr>
<th>Institutions</th>
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<tbody>
<tr>
<td>College of the Holy Cross</td>
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<tr>
<td>Fairfield University</td>
</tr>
<tr>
<td>John Carroll University</td>
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<tr>
<td>Le Moyne College</td>
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<tr>
<td>Loyola University Chicago</td>
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<tr>
<td>Loyola University New Orleans</td>
</tr>
<tr>
<td>Regis University</td>
</tr>
<tr>
<td>Rockhurst University</td>
</tr>
<tr>
<td>Saint Louis University – Main Campus</td>
</tr>
<tr>
<td>Seattle University</td>
</tr>
<tr>
<td>University of Detroit Mercy</td>
</tr>
<tr>
<td>University of San Francisco</td>
</tr>
<tr>
<td>University of Scranton</td>
</tr>
<tr>
<td>Wheeling Jesuit University</td>
</tr>
<tr>
<td>Xavier University</td>
</tr>
</tbody>
</table>

*Note:* (http://nsse.iub.edu/html/consortia-list_2005.cfm#jesuit)
Table 7  
*Institutions of the 2005 NSSE Catholic Colleges and Universities Consortium*

<table>
<thead>
<tr>
<th>Institutions</th>
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<tbody>
<tr>
<td>Alvernia College</td>
</tr>
<tr>
<td>Edgewood College</td>
</tr>
<tr>
<td>Franciscan University of Steubenville</td>
</tr>
<tr>
<td>Georgian Court University</td>
</tr>
<tr>
<td>Neumann College</td>
</tr>
<tr>
<td>Newman University</td>
</tr>
<tr>
<td>Sacred Heart University</td>
</tr>
<tr>
<td>Saint Francis University</td>
</tr>
<tr>
<td>Saint Leo University</td>
</tr>
<tr>
<td>Saint Xavier University</td>
</tr>
<tr>
<td>Siena College</td>
</tr>
<tr>
<td>Stonehill College</td>
</tr>
<tr>
<td>The College of Saint Scholastica</td>
</tr>
<tr>
<td>University of Mary</td>
</tr>
<tr>
<td>University of San Diego</td>
</tr>
<tr>
<td>University of St Thomas</td>
</tr>
</tbody>
</table>

*Note:* (http://nsse.iub.edu/html/consortia-list_2005.cfm#catholic)
Table 8

*Institutions of the 2005 NSSE Council for Christian Colleges and Universities Consortium*

<table>
<thead>
<tr>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bethel College</td>
</tr>
<tr>
<td>Covenant College</td>
</tr>
<tr>
<td>Gordon College</td>
</tr>
<tr>
<td>Great Lakes Christian College</td>
</tr>
<tr>
<td>Houghton College</td>
</tr>
<tr>
<td>Judson College</td>
</tr>
<tr>
<td>Lee University</td>
</tr>
<tr>
<td>Northwest Christian College</td>
</tr>
<tr>
<td>Simpson College</td>
</tr>
<tr>
<td>Taylor University – Upland</td>
</tr>
<tr>
<td>Trinity Western University</td>
</tr>
<tr>
<td>Union University</td>
</tr>
<tr>
<td>Warner Southern College</td>
</tr>
</tbody>
</table>

Table 9

*Number of Freshmen/First Year and Senior/Fourth Year Respondents on Level of Academic Challenge per 2005 NSSE Consortia*

<table>
<thead>
<tr>
<th>Consortium</th>
<th>Freshmen/First Year</th>
<th>Seniors/Fourth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic Colleges and Universities</td>
<td>459</td>
<td>391</td>
</tr>
<tr>
<td>Council for Christian Colleges and Universities</td>
<td>388</td>
<td>370</td>
</tr>
<tr>
<td>Jesuit Universities</td>
<td>751</td>
<td>812</td>
</tr>
</tbody>
</table>

*Note: NSSE data were used with permission from The Indiana University Center for Postsecondary Research.*
Table 10

*Number of Freshmen/First Year and Senior/Fourth Year Respondents on Active and Collaborative Learning per 2005 NSSE Consortia*

<table>
<thead>
<tr>
<th>Consortium</th>
<th>Freshmen/First Year</th>
<th>Seniors/Fourth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic Colleges and Universities</td>
<td>483</td>
<td>401</td>
</tr>
<tr>
<td>Council for Christian Colleges and Universities</td>
<td>406</td>
<td>381</td>
</tr>
<tr>
<td>Jesuit Universities</td>
<td>818</td>
<td>839</td>
</tr>
</tbody>
</table>

*Note: NSSE data were used with permission from The Indiana University Center for Postsecondary Research.*
Table 11

*Number of Freshmen/First Year and Senior/Fourth Year Respondents on Student Interactions with Faculty per 2005 NSSE Consortia*

<table>
<thead>
<tr>
<th>Consortium</th>
<th>Freshmen/First Year</th>
<th>Seniors/Fourth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic Colleges and Universities</td>
<td>463</td>
<td>395</td>
</tr>
<tr>
<td>Council for Christian Colleges and Universities</td>
<td>389</td>
<td>371</td>
</tr>
<tr>
<td>Jesuit Universities</td>
<td>759</td>
<td>818</td>
</tr>
</tbody>
</table>

*Note: NSSE data were used with permission from The Indiana University Center for Postsecondary Research.*
Table 12

*Number of Freshmen/First Year and Senior/Fourth Year Respondents on Enriching Educational Experiences per 2005 NSSE Consortia*

<table>
<thead>
<tr>
<th>Consortium</th>
<th>Freshmen/First Year</th>
<th>Seniors/Fourth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic Colleges and Universities</td>
<td>452</td>
<td>387</td>
</tr>
<tr>
<td>Council for Christian Colleges and Universities</td>
<td>379</td>
<td>367</td>
</tr>
<tr>
<td>Jesuit Universities</td>
<td>735</td>
<td>804</td>
</tr>
</tbody>
</table>

*Note: NSSE data were used with permission from The Indiana University Center for Postsecondary Research.*
Table 13

*Number of Freshmen/First Year and Senior/Fourth Year Respondents on Supportive Campus Environment per 2005 NSSE Consortia*

<table>
<thead>
<tr>
<th>Consortium</th>
<th>Freshmen/First Year</th>
<th>Seniors/Fourth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic Colleges and Universities</td>
<td>451</td>
<td>384</td>
</tr>
<tr>
<td>Council for Christian Colleges and Universities</td>
<td>374</td>
<td>365</td>
</tr>
<tr>
<td>Jesuit Universities</td>
<td>717</td>
<td>795</td>
</tr>
</tbody>
</table>

*Note: NSSE data were used with permission from The Indiana University Center for Postsecondary Research.*
This study compared Jesuit institutions with Catholic, non-Jesuit and Christian, non-Catholic institutions in order to investigate, discover, and identify any noticeable and potentially marketable differences surrounding Jesuit higher education.

One of the most potentially powerful brand names in US higher education is the designation “Jesuit.” In theory, the attainment of Jesuit degree training, due to its distinctive educational characteristics, could elicit the same cache that is evoked by a Harvard, Stanford, MIT, or Berkeley undergraduate degree. But, because the umbrella brand equity of Jesuit higher education has not been effectively or efficiently leveraged for its synergy, what could be a phenomenal national, or even international, nameplate in university education has been left relatively unmanaged. In practice, Jesuit colleges march onward as twenty-eight loosely affiliated US franchises. Granted, individual Jesuit colleges and universities have a clear and convincing track record of educational success. However, promoted by an integrated marketing communications campaign (IMCC) that systematically explains the philosophy and demonstrated achievements of the Jesuit colleges and universities, the collective impact of the Jesuit higher education network could be so much more than it currently is (Laczniak, n.d., p. 3).

By discovering any unique traits or characteristics that set Jesuit colleges and universities apart from other religiously-affiliated institutions, Jesuit institutions have the opportunity to use their long-standing foundation and tradition of education in combination with current topics, such as student engagement, to attract and retain students and other valuable resources.
CHAPTER 3
RESEARCH METHODOLOGY

Introduction

The principal purpose of this inquiry was to determine if there are any statistically significant differences between the Jesuit Universities Consortium’s results on the 2005 NSSE and the 2005 NSSE results of the Catholic Colleges and Universities and the Council for Christian Colleges and Universities Consortia. This study was specific to the 2005 NSSE results of the random sample of the freshmen/first year students and seniors/fourth year students within the three consortia as selected by The Indiana University Center for Postsecondary Research. This study did not investigate any consortium specific questions, but only reviewed the standard NSSE questions that measure the five clusters of student engagement. NSSE data were used with permission from The Indiana University Center for Postsecondary Research.

This chapter discussed methodology and the following information: (1) research questions, (2) research design, (3) procedures for the collection of data, (4) data sources of the study, and (5) procedures for analysis of data sources.

Research Questions

This investigation focused on the following questions:

1. As measured by the 2005 NSSE, do freshmen/first year students at institutions within the Jesuit Universities NSSE Consortium statistically differ on the NSSE clusters from freshmen/first year students at institutions within the Catholic Colleges and Universities and the Council for Christian Colleges and Universities NSSE Consortia?
2. As measured by the 2005 NSSE, do seniors/fourth year students at institutions within the Jesuit Universities NSSE Consortium statistically differ on the NSSE clusters from seniors/fourth year students at institutions within the Catholic Colleges and Universities and the Council for Christian Colleges and Universities NSSE Consortia?

Research Design

This study utilized data from the 2005 NSSE survey as reported by the Jesuit Universities, Catholic Colleges and Universities, and the Council for Christian Colleges and Universities Consortia. The data used were retrieved from a 20% random sample of all freshmen/first year and senior/fourth year U.S. students within each of the three studied consortia.

Procedures for the Collection of Data

The researcher initially contacted The Indiana University Center for Postsecondary Research in October 2008 to inquire about the NSSE Jesuit Consortium. In February 2009, an agreement was reached between the Indiana University Center for Postsecondary Research and this study’s researcher in order to share the 2005 NSSE data. The data sharing agreement was finalized in April 2009. The Indiana University Center for Postsecondary Research randomly selected a 20% sample from the responses on the 2005 NSSE from students within the three studied consortia. After receiving the data from the random sample, the NSSE consortia data were separated into two groups consisting of freshmen/first year and senior/fourth year responses. After the freshmen/first year and senior/fourth year responses were separated, both groups were analyzed by using an analysis of variance (ANOVA) on each NSSE cluster
of student engagement. The five NSSE clusters of student engagement include level of academic challenge, active and collaborative learning, student interactions with faculty members, enriching educational experiences, and supportive campus environment.

Data Sources of the Study

The NSSE relies on self-reporting to collect its data. While self-reporting has been inspected to estimate the validity and credibility of self-reports. There are two general problems with self-reports, “the inability of respondents to provide accurate information in response to a question” and the “unwillingness on the part of the respondents to provide what they know to be truthful information” (Kuh, n.d., p. 3). To combat these two issues, self-reports are likely to be valid if these conditions exist:

- when the information requested is known to the respondents;
- the questions are phrased clearly and unambiguously;
- the questions refer to recent activities;
- the respondents think the questions merit a serious and thoughtful response; and
- answering the questions does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways (Kuh, n.d., pp. 3-4).

The NSSE was deliberately created to satisfy these five conditions as well as validity and reliability.

Between 1998 and the NSSE pilot of 1999, the group of individuals who gathered to design the NSSE survey worked to ensure that “the items on the survey were clearly worded, well-defined, and had high face and content validity” (Kuh, n.d., p. 5). Factor analysis was used to determine the core properties of student engagement
as signified by the questions on the NSSE. As for reliability, the NSSE applies the test-retest method in order to determine stability, or reliability. “To improve the validity and reliability of [the NSSE], minor editing and item substitutions have been made prior to each administration” (Kuh, n.d., p. 5). Psychometric analyses have been performed on each of version of the NSSE, including the pilot survey, in order to ensure validity and reliability are high.

NSSE data were used with permission from The Indiana University Center for Postsecondary Research. Data were taken from a 20% random sample of all freshmen/first year and senior/fourth year U.S. students at the participating institutions within the 2005 NSSE Jesuit Universities, Catholic Colleges and Universities, and the Council for Christian Colleges and Universities Consortia. “The main advantage of randomly selected samples is that they yield research data that can be generalized to a larger population within margins of error that can be determined by statistical formulas. Random sampling also is preferred because it satisfies the logic by which a null hypothesis is tested using inferential statistics” (Gall, Gall, and Borg, 2003, p. 171). Per agreement with the Indiana University Center for Postsecondary Research, this data set excluded any variables or identifiers of the participating schools or students and only included the survey items with the addition of a variable that distinguished to which consortium the response belonged.

Procedures for Analysis of Data Sources

Individual analyses of variance (ANOVAs) were conducted on the freshmen/first year and senior/fourth year responses within the three consortia (Jesuit Universities, Catholic Colleges and Universities, and the Council for Christian Colleges and
Universities) on the five clusters of student engagement as measured by the 2005 NSSE. Prior to conducting ANOVAs, all assumptions of ANOVA were checked by conducting tests of Homogeneity of Variances, which assumes that “[t]he variances of the distributions in the populations are equal” (Hinkle, Wiersma, and Jurs, 2003, p. 345). By using an ANOVA on each group within the three consortia on each cluster, the rate of experiment-wise error was lowered due to less analyses being conducted. “An experiment-wise error rate is defined as the probability of making at least one Type I error for the set of all possible comparisons in an experiment” (Hinkle et al., 2003, p. 372). The ANOVAs compared the means of the two groups within the three consortia on all five subcategories of the survey. The Tukey Post-hoc test was ran to determine if there were differences among the groups and, specifically, where those differences may lie and to attempt to keep the experiment-wise error rate at the same level (Hinkle et al., 2003, p. 373). ANOVA was selected as the statistical analysis method as it allowed the researcher to compare the amount of between-groups variance with the within-groups variance. “If the ratio of between-groups variance to within-groups 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” (Gall et al., 2003, p. 307). Using an ANOVA also allowed this study to compare the groups on more than one factor. After ANOVA analyses were completed, effect sizes ($\eta^2$) were calculated by the researcher in order to determine the extent of the difference between the results. Effect sizes are considered small if calculated to be less than .25; medium if calculated to be between .25 and .50; and large if calculated to be 1.0 or greater (Hinkle et al., 2003, p. 248).
Summary

After reaching a data sharing agreement with and receiving permission from The Indiana University Center for Postsecondary Research, this study reviewed the results on the 2005 NSSE by the Jesuit Consortium, the Catholic Colleges and Universities Consortium, and the Council for Christian Colleges and Universities Consortium. The 2005 NSSE results by each consortium were divided into two groups, freshmen/first year students and seniors/fourth year students. Each of the groups was compared on the five individual clusters of student engagement by using an Analysis of Variance (ANOVA) statistical test, including the test of Homogeneity of Variances, followed by a post hoc statistical test, the Tukey method or HSD test.
CHAPTER 4
PRESENTATION OF FINDINGS

Introduction

The purpose of this study was to determine if there were any statistically significant differences between the Jesuit Universities Consortium’s results on the 2005 NSSE and the 2005 NSSE results of the Catholic Colleges and Universities and the Council for Christian Colleges and Universities Consortia. After receiving permission to use data from The Indiana University Center for Postsecondary Research, this study completed ANOVAs on the 20% random sample of all freshmen/first year and senior/fourth year U.S. students at the studied consortia.

Presentation of Findings from Freshmen/First Year Students

Using SPSS 17.0, the responses from the freshmen/first year students at the Jesuit Universities, Catholic Colleges and Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia underwent an ANOVA statistical test for each of the five NSSE clusters of student engagement: academic challenge, active and collaborative learning, student interactions with faculty members, enriching educational experiences, and supportive campus environment. The Tukey method, or Honestly Significant Difference (HSD) Test, was administered after the ANOVAs were completed and if statistical significance was discovered. Statistical significance levels were set at the .05 level for all analyses. ANOVA summary tables can be found in Appendices A, C, E, G, and I.

The NSSE cluster of Academic Challenge was the first dependent variable to be analyzed using a one-way ANOVA. Using the responses from the freshmen/first year
students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the three groups of the independent variable, the means (with standard deviations in parentheses) were 54.54 (12.94), 56.27 (12.70), and 54.28 (12.05.) The confidence intervals at the 95% level were [53.35, 55.73], [55.36, 57.18], and [53.08, 55.48], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as $p = .23$. The one-way ANOVA, $F(2, 1595) = 4.33$, $MSE = 159.13$, $p = .01$, $\eta^2 = .01$, demonstrated statistically significant differences between the three groups at the .05 level. Tukey HSD post-hoc comparisons of the three groups indicated that the Jesuit Universities Consortium group (M = 56.27, SD = 12.70) statistically differed positively from only the Council for Christian Colleges and Universities Consortium (M = 54.28, SD = 12.05) as $p = .03$.

The NSSE cluster of Active and Collaborative Learning was the second dependent variable to be analyzed. Using the responses from the freshmen/first year students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the groups of the independent variable, the means (with standard deviations in parentheses) were 43.47 (15.74), 44.47 (16.07), and 43.75 (15.28.) The confidence intervals at the 95% level were [42.06, 44.88], [43.37, 45.58], and [42.26, 45.24], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as $p = .67$. The one-way ANOVA, $F(2, 1704) = .69$, $MSE = 249.37$, $p = .50$, $\eta^2 = .00$, did not demonstrate statistically significant differences between the three groups at the .05 level.
The NSSE cluster of Student Interactions with Faculty Members was the third dependent variable to be analyzed. Using the responses from the freshmen/first year students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the groups of the independent variable, the means (with standard deviations in parentheses) were 35.01 (17.42), 36.20 (17.61), and 34.35 (16.81). The confidence intervals at the 95% level were [33.42, 36.60], [34.95, 37.46], and [32.67, 36.02], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as $p = .49$. The one-way ANOVA, $F(2, 1608) = 1.64$, $MSE = 301.60$, $p = .19$, $\eta^2 = .00$, did not demonstrate statistically significant differences between the three groups at the .05 level.

The NSSE cluster of Enriching Educational Experiences was the fourth dependent variable to be analyzed. Using the responses from the freshmen/first year students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the groups of the independent variable, the means (with standard deviations in parentheses) were 28.07 (11.78), 30.63 (12.69), and 28.86 (11.96). The confidence intervals at the 95% level were [26.99, 29.16], [29.71, 31.55], and [27.65, 30.07], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as $p = .20$. The one-way ANOVA, $F(2, 1563) = 6.70$, $MSE = 301.60$, $p = .00$, $\eta^2 = .01$, demonstrated statistically significant differences between the three groups at the .05 level. Tukey HSD post-hoc comparisons of the three groups indicated that the Jesuit Universities Consortium group ($M = 30.63$, $SD = 12.69$) statistically differed positively from only the Catholic Colleges and Universities Consortium ($M = 28.07$, $SD = 11.78$) with $p = .00$. 

58
The NSSE cluster of Supportive Campus Environment was the final dependent variable to be analyzed. Using the responses from the freshmen/first year students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the groups of the independent variable, the means (with standard deviations in parentheses) were 64.71 (18.14), 63.25 (17.48), and 66.70 (16.98). The confidence intervals at the 95% level were [63.03, 66.39], [61.97, 64.53], and [64.98, 68.43], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as $p = .51$. The one-way ANOVA, $F(2, 1539) = 4.80$, $MSE = 308.25$, $p = .01$, $\eta^2 = .01$, demonstrated statistically significant differences between the three groups at the .05 level. Tukey HSD post-hoc comparisons of the three groups indicated that the mean score for the Jesuit Universities Consortium group ($M = 63.25$, $SD = 17.48$) statistically differed negatively from only the mean score for the Council for Christian Colleges and Universities Consortium ($M = 66.70$, $SD = 16.98$) with $p = .01$.

Presentation of Findings from Seniors/Fourth Year Students

Using SPSS 17.0, the responses from the seniors/fourth year students at the Jesuit Universities, Catholic Colleges and Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia underwent an ANOVA statistical test for each of the five NSSE clusters of student engagement: academic challenge, active and collaborative learning, student interactions with faculty members, enriching educational experiences, and supportive campus environment. The Tukey method, or Honestly Significant Difference (HSD) Test, was administered after the ANOVAs were completed and if statistical significance was discovered. Statistical significance levels
were set at the .05 level for all analyses. ANOVA summary tables can be found in Appendices B, D, F, H, and J.

The NSSE cluster of Academic Challenge was the first dependent variable to be analyzed. Using the responses from the seniors/fourth year students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the independent variables, the means (with standard deviations in parentheses) were 60.64 (14.19), 59.22 (12.94), and 58.30 (13.17). The confidence intervals at the 95% level were [59.23, 62.05], [58.33, 60.12], and [56.95, 59.65], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as $p = .13$. The one-way ANOVA, $F(2, 1570) = 3.02$, $MSE = 177.34$, $p = .05$, $\eta^2 = .00$, did not demonstrate statistically significant differences between the three groups at the .05 level.

The NSSE cluster of Active and Collaborative Learning was the second dependent variable to be analyzed. Using the responses from the seniors/fourth year students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the independent variables, the means (with standard deviations in parentheses) were 54.56 (16.66), 52.17 (16.35), and 53.30 (15.87). The confidence intervals at the 95% level were [52.92, 56.19], [51.06, 53.28], and [51.70, 54.90], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as $p = .35$. The one-way ANOVA, $F(2, 1618) = 2.98$, $MSE = 266.29$, $p = .05$, $\eta^2 = .00$, did not demonstrate statistically significant differences between the three groups at the .05 level.
The NSSE cluster of Student Interactions with Faculty Members was the third dependent variable to be analyzed. Using the responses from the seniors/fourth year students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the independent variables, the means (with standard deviations in parentheses) were 47.44 (20.43), 45.45 (20.26), and 44.97 (18.87). The confidence intervals at the 95% level were [45.42, 49.46], [44.06, 46.84], and [43.05, 46.90], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as \( p = .07 \). The one-way ANOVA, \( F(2, 1581) = 1.78, MSE = 399.47, p = .17, \eta^2 = .00 \), did not demonstrate statistically significant differences between the three groups at the .05 level.

The NSSE cluster of Enriching Educational Experiences was the fourth dependent variable to be analyzed. Using the responses from the seniors/fourth year students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the independent variables, the means (with standard deviations in parentheses) were 44.88 (18.11), 46.81 (16.98), and 48.21 (16.60). The confidence intervals at the 95% level were [43.07, 46.69], [45.64, 47.99], and [46.51, 49.92], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as \( p = .22 \). The one-way ANOVA, \( F(2, 1555) = 3.61, MSE = 295.20, p = .03, \eta^2 = .01 \), demonstrated statistically significant differences between the three groups at the .05 level. Tukey HSD post-hoc comparisons of the three groups could not determine where the statistical differences may lie between the mean score for the Jesuit Universities Consortium group (\( M = 46.81, SD = 16.98 \)) and the mean score for the Catholic Colleges and Universities
Consortium (M = 44.88, SD = 18.11) with \( p = .16 \) or from the mean score for the Council for Christian Colleges and Universities Consortium (M = 48.21, SD = 16.60) with \( p = .40 \).

The NSSE cluster of Supportive Campus Environment was the final dependent variable to be analyzed. Using the responses from the seniors/fourth year students at the Catholic Colleges and Universities, Jesuit Universities, and the Council for Christian Colleges and Universities 2005 NSSE Consortia, in order, as the independent variables, the means (with standard deviations in parentheses) were 63.83 (18.12), 60.54 (17.78), and 66.05 (16.13). The confidence intervals at the 95% level were [62.01, 65.65], [59.30, 61.77], and [64.39, 67.71], respectively. The test of Homogeneity of Variances met the assumptions of ANOVA as \( p = .10 \). The one-way ANOVA, \( F(2, 1541) = 13.58, MSE = 306.02, p = .00, \eta^2 = .02 \), demonstrated statistically significant differences between the three groups at the .05 level. Tukey HSD post-hoc comparisons of the three groups indicated that the mean score for the Jesuit Universities Consortium group (M = 60.54, SD = 17.78) statistically significantly differed negatively from the mean score for the Catholic Colleges and Universities Consortium (M = 63.83, SD = 18.12) with \( p = .01 \) and from the mean score for the Council for Christian Colleges and Universities Consortium (M = 66.05, SD = 16.13) with \( p = .00 \).
CHAPTER 5
SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This study used one-way analyses of variance (ANOVAs) to determine if there were any statistical differences on the 2005 NSSE responses of a 20% random sample of all freshmen/first year and seniors/fourth year U.S. students attending the institutions in the Jesuit Universities, Catholic Colleges and Universities, and the Council for Christian Colleges and Universities Consortia. This chapter is presented in four parts: a summary of the findings on each of the research questions, a discussion of the findings, a review of conclusions based on the findings, and recommendations based on the findings of this study.

Summary of the Findings

Freshmen/First Year Students

On the NSSE cluster of level of Academic Challenge, there was a statistically significant difference between the freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Council for Christian Colleges and Universities Consortium, but not between the freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Catholic Colleges and Universities Consortium. The discovered statistically significant difference between the freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Catholic Colleges and Universities Consortium was positive in directionality and had a small effect size, η² = .00.
On the NSSE cluster of Active and Collaborative Learning, there were no statistically significant differences between the freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in either of the Council for Christian Colleges and Universities Consortium or the Catholic Colleges and Universities Consortium. On the NSSE cluster of Student Interactions with Faculty Members, there were no statistically significant differences between the freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in either of the Council for Christian Colleges and Universities Consortium or the Catholic Colleges and Universities Consortium.

On the NSSE cluster of Enriching Educational Experiences, there were statistically significant differences between the freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Catholic Colleges and Universities Consortium, but not with the freshmen/first year students in the Council for Christian Colleges and Universities Consortium. The discovered statistically significant difference between the freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Catholic Colleges and Universities Consortium was positive in directionality and had a small effect size, $\eta^2 = .01$.

On the NSSE cluster of Supportive Campus Environment, there were statistically significant differences between the freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Council for Christian Colleges and Universities Consortium, but not with the freshmen/first year students in the Catholic Colleges and Universities Consortium. The discovered statistically
significant difference between the freshmen/first year students in the Jesuit Universities Consortium and the freshmen/first year students in the Council for Christian Colleges and Universities Consortium was negative in directionality and had a small effect size, \( \eta^2 = .01 \).

**Seniors/Fourth Year Students**

On the NSSE cluster of level of Academic Challenge, there were no statistically significant differences between the seniors/fourth year students in the Jesuit Universities Consortium and the seniors/fourth year students in either of the Council for Christian Colleges and Universities Consortium or the Catholic Colleges and Universities Consortium. On the NSSE cluster of Active and Collaborative Learning, there were no statistically significant differences between the seniors/fourth year students in the Jesuit Universities Consortium and the seniors/fourth year students in either of the Catholic Colleges and Universities Consortium or the Council for Christian Colleges and Universities Consortium. On the NSSE cluster of Student Interactions with Faculty Members, there were no clearly identified statistically significant differences between the seniors/fourth year students in the Jesuit Universities Consortium and the seniors/fourth year students in either of the Council for Christian Colleges and Universities Consortium or the Catholic Colleges and Universities Consortium. While there was an initial statistically significant difference found after the ANOVA was completed, post hoc comparison could not determine where the differences may lie. On the NSSE cluster of Enriching Educational Experiences, there were no statistically significant differences between the seniors/fourth year students in the Jesuit Universities Consortium and the seniors/fourth year students in the Council for Christian Colleges and Universities Consortium.
Colleges and Universities Consortium or the Catholic Colleges and Universities Consortium.

On the NSSE cluster of Supportive Campus Environment, there were statistically significant differences between the seniors/fourth year students in the Jesuit Universities Consortium and the seniors/fourth year students in both Council for Christian Colleges and Universities and Catholic Colleges and Universities Consortia. The discovered statistically significant difference between the seniors/fourth year students in the Jesuit Universities Consortium and the seniors/fourth year students in the Council for Christian Colleges and Universities Consortium and the seniors/fourth year students in the Catholic Colleges and Universities Consortium was negative in directionality and had a small effect size, $\eta^2 = .02$.

Discussion of the Findings

When reviewing the literature, one may find factors that led to the small effect sizes of any of the found statistically significant differences. When reviewing the NSSE instrument, some of the criteria within the clusters may not be natural or frequent occurrences at the institutions within the three studied consortia. For example, one of the criteria under the Enriching Educational Experiences cluster speaks to the notion of students having serious conversations with students of different religious beliefs (Kuh et al., 2005, p. 219). The mission of the Council for Christian Colleges and Universities (CCCU) clearly articulates that Jesus Christ is the center for education at the member institutions. While there are about 900 colleges and universities that describe themselves to be religiously-affiliated, the CCCU has only granted membership to 109
institutions (CCCU, n.d.). These institutions are those who fully focus on a Christian experience for their students.

Abilene Christian University (ACU) in Abilene, Texas is a member of the CCCU. On its quick facts webpage, ACU states that its “mission is to educate students for Christian service and leadership throughout the world…[and]…all faculty, staff, administrators, and members of the Board of Trustees are Christians” (Abilene Christian University Profile, n.d.). Bethel College, one of the 2005 NSSE Consortium for the CCCU, affirms its institutional beliefs as the following:

Bethel College, affiliated with the Missionary Church, is a Christian Community of scholars and learners dedicated to building lives of commitment for leadership in the church, nation, and the world.

- God is the Creator and Sustainer of all things, and the Author of salvation.
- The Bible is the divinely inspired, only infallible, authoritative Word of God, and the unchanging rule of faith and practice.
- Man’s relationship to God, which was lost through sin, is restored through faith in the redeeming work of Christ, God's divine Son.
- The Church is composed of persons who are born of the Spirit and empowered by Him to live a holy life devoted to the fulfillment of the Church’s Great Commission.
- The personal return of Christ will bring about the end of the present age, the Judgment and the beginning of the glorious age to come (Bethel College What We Believe, n.d.).
While these are only two examples of CCCU institutions, they are truly representative of the mission and campus climate. With a strong focus on Christianity and evangelism, the NSSE Enriching Educational Experiences criteria of having a serious conversation with people with different religious beliefs would be scarce if not absent from CCCU campuses.

For Jesuit and Catholic institutions, there are more efforts to attract and welcome students of a non-Christian faith. However, many Jesuit and Catholic institutions are distinctly Christian and may dissuade non-Christian students from attending. For example, Georgetown University in Washington D.C. has crosses and crucifixes in every classroom on its Main Campus and still offers daily mass twice a day during the work week and six times on Sundays (Georgetown’s Catholic and Jesuit Identity, n.d.). Loyola University Chicago, one of the institutions in the 2005 Jesuit Universities NSSE Consortium, states that one of the characteristics of its Jesuit education is “Faith in God and the religious experience: promoting well-formed and strongly held beliefs in one’s faith tradition to deepen others’ relationship with God” (Loyola University Chicago Mission of the University, n.d.). While this characteristic is described in faith-neutral terms, it is stated one of the components of the mission of a Christian institution. Siena College, one of the institutions within the 2005 NSSE Consortium of Catholic Colleges and Universities, clearly articulates its mission as “a learning community advancing the ideals of a liberal arts education, rooted in its identity as a Franciscan and Catholic institution” (Siena College History and Mission, n.d.). On this one criterion within one cluster on the NSSE, there may be institutional obstacles, intentional or unintentional, to fostering these serious conversations between people of differing religious beliefs.
Within the review of the literature, another factor includes key aspects of effective student engagement at the institutional level that all three types of studied colleges and universities may be predisposed to practice. Within the Documenting Effective Educational Practice (DEEP) project, certain characteristics were identified at all types of institutions that allowed them to report higher than expected levels of student engagement. For example, DEEP institutions all demonstrated a shared responsibility for educational quality and student success (Kuh et al., 2005, p. 157). The shared responsibility begins at the top of the leadership structure and flows freely to all levels of institutional stakeholders. “Leaders at DEEP schools clearly and consistently articulate core operating values and principles that flow from their school’s missions and philosophy, select associates who are predisposed to make these principles their own, repeat them early and often, and – most important – use them consistently for key decisions as well as for guiding day-to-day activities” (Kuh et al., 2005, pp. 171-172).

After reviewing the association affiliations of and the specific institutions within the 2005 NSSE Consortia examined in this study, there are many examples of all three types of institutions who fit this notion of shared responsibility.

At Alvernia College (now Alvernia University), one of the institutions of the 2005 NSSE Catholic Colleges and Universities Consortium, the five core values of their faith and educational heritage are active and present on the campus today.

Service, humility, peacemaking, contemplation, and collegiality – these are the five core values expressed in the mission statements of the Bernardine Franciscan Sisters and Alvernia University. To call these values “traditional” to the Catholic, Franciscan view of the world does not imply that they are merely
“old” or without relevance to contemporary society. On the contrary, these basic values continue to inform a way of life, a view of the world, and a definition of men’s and women’s relationships to their Creator that may be more relevant today than ever before (Alvernia University, n.d.).

The campus culture at Alvernia is that all members of the Alvernia community embody and embrace these core values. At Regis University, one of the institutions of the 2005 NSSE Jesuit Universities Consortium, the motto is “Men and Women in Service of Others” reiterates Regis University’s desire to develop and shape their students who use their education to generously and selflessly serve others as well as “the desire of Regis’ faculty and staff to be of service to students and the community” (Regis University, n.d.).

At Lee University, one of the institutions of the 2005 NSSE Council for Christian Colleges and Universities Consortium, the shared responsibility for education and engagement is clearly articulated in the mission and educational philosophy of the institution. Lee strives to educate its students holistically and involvement with students in and outside of the classroom is a priority and highly expected of all faculty and staff at Lee.

Recent comparison data from the 2003 National Survey of Student Engagement (NSSE) indicated that Lee is succeeding in providing a supportive and enriching college experience. Compared to the 336 schools that participated in the 2003 NSSE nationally, Lee ranked within the 90th and 100th percentile range in the “Supportive Campus Environment” benchmark. In the benchmark area of “Enriching Educational Experiences,” Lee students reported the highest
score of all participating Baccalaureate-General institutions (Lee University Our Mission, n.d.).

Lee operationally defines this mission through its educational philosophy where the campus community is “a discipleship of equals” and education is about teachers and students and “the creative engagement of the two” (Lee University Philosophy of Education, n.d.). Again, while these are one specific institution examples for each of the three NSSE Consortia, they are truly representative of the institutions within each consortium.

Even within the associations affiliated with the three studied NSSE Consortia, there are obvious connections to findings that support high levels of student engagement. One example includes the discovery of DEEP schools “requiring students to participate in courses or activities that promote cross-cultural understanding, civic engagement, and self-reflection” (Kuh et al., 2005, p. 240). For the Association of Catholic Colleges and Universities (ACCU), the characteristics of Catholic colleges and universities include those who are not Catholic, but those who are willing to serve as “collaborators who value our vision and our tradition” and “reflecting on all secular knowledge in the light of the faith and the Catholic intellectual tradition” (ACCU Characteristics of Catholic Colleges and Universities PowerPoint Presentation, n.d.).

In the Association of Jesuit Colleges and Universities (AJCU), the mission of Jesuit higher education includes engaging the mind:

Jesuit colleges and universities are places of intellectual integrity, critical inquiry, and mutual respect, where open dialogue characterizes an exciting environment of teaching, research and professional development. The Jesuit
ideal of giving serious attention to the profound questions about the meaning of life encourages an openness of mind and heart, and seeks to establish campus communities which support the intellectual growth of all of its members while providing them with opportunities for spiritual growth and development (AJCU Mission, n.d.).

While the CCCU promotes Christ-centered education, the CCCU also promotes “comprehensive undergraduate curricula rooted in the arts and sciences (CCCU Member Application & Criteria, n.d.). CCCU institutions also strive to help students best integrate their faith and learning, which requires a tremendous amount of self-reflection. While these are just a few examples of similarities within the review of literature, these examples shed light on why there weren’t many statistically significant differences found in this research as the studied types of institutions are too similar in many areas.

Conclusions of the Findings

According to the one-way ANOVA analyses and Tukey HSD post hoc comparisons, there were some statistically significant differences between some of the groups. The directionalities in differences were evenly split between positive and negative between the Jesuit Consortium and the Catholic Colleges and Universities and Council for Christian Colleges and Universities Consortia. However, their effect sizes were considered to be small and, therefore, this study cannot positively and with strong certainty indicate that the Jesuit Universities Consortium have a higher effectiveness in student engagement than the Catholic Colleges and Universities and Council for Christian Colleges and Universities Consortia as measured by the 2005 NSSE.
One major reason is that all studied institutions are affiliated with the Christian faith and may attract the same type of student and/or offer the same type of activities, programs, and opportunities for student engagement and development. As discussed in the literature review, all three consortia consist of institutions that are considered Christian and consider Christianity to be the central focus of their educational experiences. As Jesuit institutions are Catholic, one could assume that there would be no statistically significant differences between the two consortia. Between the Jesuit institutions and the Council for Christian Colleges and Universities institutions, one may assume a slight difference as the Council institutions are more evangelical in nature and focus on the Bible as the center for all educational purposes. However, these differences were too small to determine any significant differences.

Another factor that may have impacted the study is the lack of participation by all Jesuit institutions in the 2005 NSSE Jesuit Universities Consortium. Approximately 54% of the Jesuit Colleges and Universities participated in the 2005 NSSE Jesuit Universities Consortium. Another factor that may have impacted the study is that the Jesuit institutions still struggle with how to fully enact the Jesuit philosophy as set by St. Ignatius. “The conversation about mission and identity of Jesuit colleges and universities is more than thirty years old and shows no sign of reaching terminal clarity soon” (Appleyard and Gray, 2000, p. 4). While there are no certain conclusions reached with this study, there are opportunities for future areas of research on this topic.

Recommendations for Future Research

As student engagement becomes a more visible component in the discussion about higher education, it is evident that more investigations into this area are
necessary (Marklein, 2010). Through this study, many opportunities for future research have been produced. The following suggestions and questions, in random order, are some ways in which areas surrounding student engagement and Jesuit colleges and universities could be explored in future studies.

- Using NSSE results, a study using the results from Jesuit Consortium institutions could be compared to a group of similar non-religiously affiliated institutions to determine if Jesuit higher education shows higher levels of student engagement than similar-sized, non-Christian institutions.

- Using NSSE results, a longitudinal study using the results from freshmen/first year students within each of the three consortia and using the results from the same students when they are seniors/fourth year students within each of the three consortia should be conducted in order to accurately review changes in levels of student engagement within the individual consortia as well as between the three consortia.

- Using NSSE results, a consortium specific study should be conducted in order to assess which Jesuit institutions are reporting higher levels of student engagement. In this study, consortium specific questions could be assessed in addition to the five clusters of NSSE.

- Since this study only had 15 Jesuit institutions of higher education involved in the Jesuit Universities Consortium, a study should be conducted in which 28 Jesuit institutions participate in the NSSE and the Jesuit Universities Consortium in order to effectively measure and compare levels of student engagement.
What role can the Association of Jesuit Colleges and Universities (AJCU) play to help Jesuit institutions connect their Ignatian heritage of *cura personalis* with student engagement? Also, how can the AJCU help Jesuit colleges and universities publicize instances of effective student engagement?

By studying student engagement levels on campus, Jesuit colleges and universities could gain the ability to clearly articulate differences that are individual and unique to Jesuit institutions and why those differences are important and valuable to students, parents, and other stakeholders.
APPENDIX A

ANOVA SUMMARY TABLE

LEVEL OF ACADEMIC CHALLENGE FOR FRESHMEN/FIRST YEAR STUDENTS
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<thead>
<tr>
<th>Sum of Squares</th>
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<th></th>
<th></th>
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*Note: p < .05*
APPENDIX B

ANOVA SUMMARY TABLE

LEVEL OF ACADEMIC CHALLENGE FOR SENIORS/FOURTH YEAR STUDENTS
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*Note: p < .05*
APPENDIX C

ANOVA SUMMARY TABLE

ACTIVE AND COLLABORATIVE LEARNING FOR FRESHMEN/FIRST YEAR STUDENTS
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*Note: p < .05*
APPENDIX D

ANOVA SUMMARY TABLE

ACTIVE AND COLLABORATIVE LEARNING FOR SENIORS/FOURTH YEAR STUDENTS
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*Note: p < .05*
APPENDIX E

ANOVA SUMMARY TABLE

STUDENT INTERACTIONS WITH FACULTY MEMBERS FOR FRESHMEN/FIRST YEAR STUDENTS
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*Note: p < .05*
APPENDIX F

ANOVA SUMMARY TABLE

STUDENT INTERACTIONS WITH FACULTY MEMBERS FOR SENIORS/FOURTH YEAR STUDENTS
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Note: $p < .05$
APPENDIX G

ANOVA SUMMARY TABLE

LEVEL OF ENRICHING EDUCATIONAL EXPERIENCES FOR FRESHMEN/FIRST YEAR STUDENTS
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*Note: p < .05*
APPENDIX H

ANOVA SUMMARY TABLE

LEVEL OF ENRICHING EDUCATIONAL EXPERIENCES FOR SENIORS/FOURTH YEAR STUDENTS
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Note: $p < .05$
APPENDIX I

ANOVA SUMMARY TABLE

SUPPORTIVE CAMPUS ENVIRONMENT FOR FRESHMEN/FIRST YEAR STUDENTS
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*Note: p < .05*
APPENDIX J

ANOVA SUMMARY TABLE

SUPPORTIVE CAMPUS ENVIRONMENT FOR SENIORS/FOURTH YEAR STUDENTS
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*Note: $p < .05$*
REFERENCES


