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The Relationship Between Student Engagement and the Development of Character in Mission Driven Faith-Based Colleges and Universities as Measured by the National Survey of Student Engagement

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THE RELATIONSHIP BETWEEN STUDENT ENGAGEMENT AND THE DEVELOPMENT OF CHARACTER IN MISSION DRIVEN FAITH-BASED COLLEGES AND UNIVERSITIES AS MEASURED BY THE NATIONAL SURVEY OF STUDENT ENGAGEMENT

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ABSTRACT

For many institutions devoted to their mission, especially those that state as their goal the promotion of character development, the need for measurement tools becomes a priority. These tools can by used not only to assess the stated outcomes, but also to guide institutional policies, practices, and improvements.

The purpose of this study is to determine whether educationally purposeful activities and institutional type are related to the student development of character and how these relationships differ across institutional type. The data from senior students at four-year institutions who completed the National Survey of Student Engagement (NSSE) were used. Descriptive and ordinal logistic regression was performed to examine whether a relationship between educationally purposeful activities, student characteristics, behaviors, and institutional type and the student development of a deepened sense of spirituality, a personal code of values and ethnics, and an understanding of people of different racial and ethnic backgrounds exists.

The findings of this study suggest that educationally purposeful activities are related to the development of character and that the National Survey of Student Engagement (NSSE) is a useful tool in assisting mission driven faith-based institutions in the assessment of their student development of character.

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DEDICATION

I would like to dedicate this dissertation to my parents, who instilled the importance of an education in their children, and to my family and friends, who gave me their constant support and encouragement.

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CHAPTER ONE

INTRODUCTION

It has been several years since the controversial report was issued by Margaret Spellin+ and the Secretary of Education's Commission on the Future of Higher Education calling for colleges and universities to measure and report meaningful student outcomes (U.S. Department of Education, 2006). Additionally, throughout President Obama's campaign in 2008 the country heard him speak of access to higher education and its importance not only to the private good, but also its contribution to the overall economy of the nation (Altbach, Reisberg & Rumbley, 2010; Azari, 1996; Wingspread Group on Higher Education, 1993). With such importance being placed on higher education today and its increasing cost to the federal and state governments, spending limits have been imposed on higher education as fierce competition for limited resources comes from other sectors such as the K-12 educational system, the military, prisons, healthcare, and human services (Hamilton & Banta, 2008). As a result the federal and state governments place increasing pressure on colleges and universities to be more accountable and transparent. Although government has contributed substantial amounts of funding to private and public institutions, little information has been provided in the past to legislators, showing little return on investment (Heller, 2009; Middaugh, 2010;Yanikoski, 2004).

In recent years, the reauthorization of the Higher Education Opportunity Act of 2008 (HEOA) included new provisions for accreditation standards addressing student achievement. The new focus requires colleges and universities to document student-learning outcomes, including knowledge, skills, and behavioral patterns. In addition to

the HEOA, the American Recovery and Reinvestment Act of 2009 (Recovery Act) was enacted. Included in this act were stimulus funds allocated to higher education in the tens of billions of dollars (Broad, 2010). The Recovery Act included unprecedented accountability and transparency requirements in the form of rigorous reporting from the grant recipients. This reporting comes in the form of data, measuring not only the institution's performance but also student outcomes (Broad, 2010; Steinhoff & Posner, 2010). Many authorities agree that this trend in assessment in higher education will only intensify in the future as the push for accountability and transparency increases from the government and other stakeholders (Achtemeier & Simpson, 2005; Brooks, 2005; Huisman & Currie, 2004; King, 2007; Klein, Kuh, Chun, Hamilton & Shavelson, 2005; Pascarella; Seifert, & Blaich, 2010; Webber & Boehmer, 2008). In addition to the regional accreditation bodies placing more emphasis on the updated standards on assessment, the professional accrediting associations along with senior administrators of colleges and universities have also introduced and placed more emphasis on assessment.

In order to guide institutional improvements and effectiveness and to meet these new demands placed on them, colleges and universities need to measure student-learning outcomes. Assessment becomes an important tool to these institutions, acting as the "glue that holds the development process together" (Miller, 1982, p. 11). The ultimate goal of assessment is the improvement of teaching and student learning. This has led many colleges and universities to create more and better assessment practices. It has also led these institutions to identify additional measures with which to pair current assessments (Ekman & Pelletier, 2008; Middaugh, 2010; Shavelson, 2007).

Benchmarking is one such practice of assessment that provides institutions with great utility (Middaugh, 2009). In the last decade, higher education has found purpose in the adaptation of this practice, which was more commonly used in other sectors (Delaney, 2009; Doerfel & Ruben, 2002). Using benchmarks as part of the assessment process provides government agencies, administrators, and stakeholders of colleges and universities a tool for identifying, determining, measuring, comparing, learning, adopting and implementing best practices (Achtemeier & Simpson, 2005; Bender, 2002; Delaney, 2009; Miller, 1982). Additionally, benchmarking provides the institutions with the ability not only to assess their effectiveness, but also to allow them to compare their results with other similar institutions by establishing a baseline. In doing so, colleges and universities can benefit from research in this area by continually improving and transforming their campuses.

For many institutions, especially private liberal arts and mission driven faith-based colleges and universities, all vying for funding in the form of student loans and grants from the federal and state governments, the need to pay closer attention to regulatory matters related to assessment increases. With provisions of accountability and transparency for institutions to measure outcomes consistent with their missions included in the new standards set by their regional accrediting bodies, these colleges and universities that set forth character development as a goal find it instrumental to develop adequate measurements (Horgan & Scire, 2007; Yanikoski, 2004). Two important challenges they face are gaining a better understanding of the outcome of character development as stated in their mission statements and determining the appropriate measure for assessing it; for many of the institutions with this stated goal, pertinent data

to measure institutional and mission effectiveness are unavailable (Dalton & Henck, 2004; Morey & Piderit, 2006; Yanikoski, 2004). According to Chickering, Dalton and Stamm (2006), character, like other ineffable outcomes, or outcomes "incapable of being expressed in words" (p. 221) in higher education cannot be easily defined or measured. These institutions need to make comparative and benchmarking data available in order to monitor performance and meet the established goals.

For many of these institutions with humanistic orientations or commitments to value-laden student outcomes, character development is one of the major objectives reflected in their mission statement (Astin, Astin & Lindholm, 2011; Kaufman, 2008; Kuh & Gonyea, 2005). Though this outcome was found in most charters of American colleges and universities incorporated prior to the nineteenth century, it was marginalized or completely removed as an educational learning goal towards the end of the twentieth century (Veysey, 1965; Yanikoski, 2004). Veysey (1965) described this shift in focus in higher education as moving more to the thinking of the practical, the vocational, and the wealthy, and less from the mental disciplines such as the psychological, theological, and moral convictions. If institutions lack the ability to find measures for this outcome, it may possibly be further diminished or entirely removed from their mission statements in the near future (Yanikoski, 2004).

Problem Statement

There has been renewed interest in promoting character development over the past several decades. Researchers have had their own perspective on the definition of character, but many of them have agreed that the over-arching principles are respect for self, values and morals, and an understanding of others (Astin and Antonio, 2004;

Chickering, Dalton, & Stamm, 2006; Strange, 2004). Spirituality, values and ethics, and understanding people of different racial and ethnic backgrounds were chosen in this study to complement the key element identified as principles of character. Furthermore, they are often included as a commitment in the mission statements of colleges and universities, especially religious and faith-based institutions. As evidenced by a recent survey taken by Dalton, Goodwin and Chen (2004) at the Center for the Study of Values in College Student Development at Florida State University, 168 public, private, and religious college presidents were asked to identify the most important outcomes of character development. The outcomes of spirituality, morality, and democracy were key principles for both private secular and religious institutions, although spirituality was not for public institutions. Additionally, the presidents identified the programs and practices in higher education important in the growth process. While private secular, religious, and public institutions all valued programs and practices that focused on moral and diversity education, private secular and religious institutions included spiritual and religious experiences as equally important in the growth of character.

As the face of the college student in America changes along with his or her attitudes, it would be detrimental for an institution not to assess such important outcomes. National scandals such as Watergate, Whitewater, and Enron, along with the embarrassment experienced in the Catholic Church with the pedophilia scandals, have increased pressure on higher education to direct more of its focus on character (Kuh & Umbach, 2004; Laurence, 1999; Thomas, 2004). For many institutions devoted to their mission professing this development, the need for measurement tools becomes a priority to assess these stated outcomes and to guide sustained institutional improvement

(Chickering, Dalton & Stamm, 2006; Kaufman, 2008; Yanikoski, 2004). Chickering et al. (2006) stressed the need and value for more such studies of ineffable outcomes as they related to perceptions and behaviors. Self-studies in which colleges and universities have engaged in the past have not been able to demonstrate the competencies professed in their institutional goals (Jones, 1970). In addition, previous research has not looked at all three of these characteristics associated with character together, although studies have focused on them separately or in pairs (Kuh & Umbach, 2004).

For many institutions, the development of spirituality is an important characteristic that students begin to form as part of their college experience. The terms *spirituality* and *religion* are often used interchangeably; but, ideally for many institutions, they should overlap, as no single comprehensive definition of either exists (Astin, Astin, Lindholm & Bryant, 2005; Dalton, Chickering, Stamm, 2006; Parks, 2000). The term *religion* is defined as a shared system of beliefs, principles, or doctrines associated with the worship of a higher power such as a god (Love, 2001). On the other hand, Parks (2000) defined *spirituality* as a search for meaning, wholeness, purpose, transcendence, and spirit, thus representing an attribute more personal to the individual than to the public. Researchers have used this term to accommodate those who define it in terms of conventional religious beliefs and those who define spirituality in their own terms (Astin, Astin & Lindholm, 2011; Kuh & Gonyea, 2005).

Over the last several decades, American higher education, especially faith-based and church-related colleges, has experienced a resurgence of interest in spirituality, yet research has remained sparse (Astin, Astin, Lindholm & Bryant, 2005; Chickering, Dalton & Stamm, 2006; Fisler, Agati, Chance, Donahue, Donahue, Eickhoff, Gastler,

Lowder & Foubert, 2009; Gehrke, 2008; Gonyea & Kuh, 2006; Hartley, 2004; Kuh & Gonyea, 2005; Love, 2001). Such limited research is directed at understanding the impact of intrinsic and extrinsic facets of spirituality on the college student, emphasizing the importance of the spirituality of students. However, there is a void in the research relative to the relationship that occurs between spirituality and the student's academic performance during their college years (Bryant, Choi & Yasuno, 2003; Donahoo & Caffey, 2010). This void in the literature creates opportunities for additional research directed at understanding spirituality, grounded in the specific experiences of the college student. The additional knowledge gained from research can improve various aspects of students' spiritual development by guiding administration, faculty, and student affairs professionals. Strengthening spiritual growth can only occur when institutions actively engage in dialogue about the experiences in which students engage.

Ethics and values are another measure of interest to these institutions. There are volumes of literature and journals related to ethics and values, many of them with a focus on specific professions such as business, social work and health care. There is a growing interest in ethics education and the development of moral reasoning from several national associations such as the Association of American Colleges and Universities and the National Association of State Universities and Land-Grant Colleges (Mayhew & Engberg, 2010). These associations have challenged the higher education community to better inform policymakers through empirically based scholarship. According to Piper, Gentile and Parks (1993), ethical consciousness and commitments continually undergo transformation throughout formal education. Since interpersonal relationships and reflective engagement have been found to be critical for moral and identity development

of college students, administrators, faculty and student affairs professionals need to better understand the effects that policies, programs, and curricula are having on students (Kuh & Umbach, 2004; Pascarella & Terenzini, 2005; Piper, Gentile & Parks, 1993). However, there are only a limited number of studies on this subject (Bruess & Pearson, 2000). Ongoing assessment in this area is critical to institutions interested in measuring ethics and values.

In addition to spirituality and ethics and values, an understanding of people of other races and ethnic backgrounds is an outcome that institutions also need to measure. This responsibility of higher education in the preparation of future leaders in understanding people of other races and ethnic backgrounds is of great importance as our society becomes more globalized (Locks, Hurtado, Bowman & Oseguera, 2008). Studies on diversity have largely been focused on students of color, women, and people of different religions; recently this trend has changed and researchers are now focusing on multicultural issues that are of interest to student affairs professionals, faculty and administrators (Pope, Mueller & Reynolds, 2009). While many studies have been conducted to provide evidence-promoting interactions with people of other races and ethnic backgrounds and an increase in intellectual and social outcomes, previous research is limited on the institutional conditions that promote student experience with diversity (Cole, 2007; Pope, Mueller & Reynolds, 2009; Umbach & Kuh, 2006). Gurin, Dey, Hurtado & Gurin (2002) suggested in their article in support of affirmative action that institutions should focus more attention on experiences with the environments that they create and that they provide opportunities to enhance their students' education. Research in the area of student engagement activities and their relationship with the student

outcome of understanding people of other racial and ethnic backgrounds must be continuous in order to build better insights.

Several researchers agree that educationally purposeful activities may influence outcomes in character development as well as academic outcomes and point out a link between engagement and development (Astin & Antonio, 2004; Chickering, Dalton & Stamm, 2006; Kuh & Umbach, 2004; Sax, 2004; Strange, 2004). While each of the elements under study has been researched before, there is a need for considering all three together to better understand perceived student outcomes and their relationship with the college experience. Since ineffable outcomes are not easy to define or operationalize, measuring experiences and observable outcomes is especially challenging for institutions engaging in assessment. The dominant strategy for many institutions is the survey questionnaire method, which can provide a multidimensional perspective to analysis (Chickering, Dalton, Stamm, 2006; Middaugh, 2009). The National Survey of Student Engagement (NSSE), also known as the *The College Student Report,* assesses the extent to which college students engage in educationally effective practices. Based on Chickering and Gamson's (1987) seven "good practices" in undergraduate education, the survey clusters the students' scores into five benchmarks of effective educational practices. These benchmarks are (1) level of academic challenge, (2) active and collaborative learning, (3) student-faculty interactions, (4) enriching educational experiences, and (5) supportive campus environments (Kuh, 2009a). NSSE benchmarks (which will be discussed further in Chapter 2) are based on 42 key questions that capture the most important aspects of the college student experience grounded in empirical and conceptual analysis (Kuh, 2009a). While NSSE is an indirect measure that provides

valuable information on effective student engagement and students' experiences, researchers have concluded that it can be used as a proxy for a direct measure (Banta, Pike, & Hansen, 2009; Pike, Kuh & Gonyea, 2002).

Purpose of the Study

Although there are a number of studies on character development, few empirical studies have been undertaken examining the experiences in educationally purposeful activities linked to different student learning outcomes based on institutions using the NSSE survey. Thus, the purpose of this study is to examine how the five NSEE benchmarks--level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environment representing student behaviors and the institutional factors related to student success--predict the three self-reported outcomes related to student character development of senior students across the different institutional types. The three outcomes under consideration are as follows: (1) development of a deepened sense of spirituality, (2) a personal code of values and ethics and (3) an understanding of people of other racial and ethnic backgrounds. The five NSSE benchmarks are indicators of effective educational practices and are linked to various learning outcomes (see Appendices C through G, for detailed items for each benchmark).

The NSSE survey will be used in this research to measure the quality of student experiences and involvement in educationally purposeful activities as they relate to the defined principles of character. Using the NSSE survey will provide institutions a gauge in evaluating the ways in which the campus environment helps to promote student learning. Additionally, because the NSSE survey established consortiums of colleges and

universities with more relevant mission and context specific issues, the instrument is even more relevant to providing high-quality actionable data (Kuh, 2009a).

The research questions that guide this dissertation study are as follows:

1. Does student engagement in educationally purposeful activities relate to student development of a deepened sense of spirituality controlling for the effects of student characteristics, behaviors and institutional type?

2. Does student engagement in educationally purposeful activities relate to student development of a personal code of values and ethics controlling for the effects of student characteristics, behaviors and institutional type?

3. Does student engagement in educationally purposeful activities relate to student development of an understanding of people of racial and ethnic backgrounds controlling for the effects of student characteristics, behaviors and institutional type?

4. How do the relationships between educationally purposeful activities and student character development differ across institutional type?

The proposed conceptual framework for this study is an integrated model that will combine the foundation theories of student engagement and involvement with the student development theories related to providing college environments that assist students in meaning-making and citizenship engagement, both necessary outcomes of character (Parks, 2000; 1986). The NSSE survey will provide the variables related to educationally purposeful activities and the self-perceived outcomes related to character. Given that the institutions under study are mission driven faith-based and liberal arts colleges and universities which all seek to promote character development, combining these theories which prior research has failed to consider will be included in the analysis.

Significance of the Study

This study is important not only for institutions in need of measuring mission related outcomes but also for higher education research for several reasons. As the pressures from stakeholders increase and changes in the regulations continue to have implications on higher education, administrators at these colleges and universities will need to address issues related to effectively assessing their mission goals. In doing so, research will benefit these administrators in determining whether goals are being achieved by providing useful tools to assist them in planning for improvement and assisting in informing policy, programming and practice decisions, especially those that focus on the specific mission of character development.

Several authors of the research in higher education have also suggested that additional studies are needed using benchmarks that will interest these stakeholders of colleges and universities (see for example, Bender, 2002; Yanikoski, 2004). Benchmarking of character development will provide institutions with the additional information that will not only affect their accreditation but can possibly help these institutions recruit and retain students, increase their philanthropy, captivate local and national legislators, make students more successful in their profession, transform campus life, confer bragging rights, improve President-Board relations, and improve society (Bender, 2002; Yanikoski, 2004).

Student affairs professionals and faculty will also benefit from this research. The study potentially can assist student affairs professionals at these institutions and others interested in character development by identifying areas where students are taking advantage of engagement activities and those where students are not and are in need of

improvement. Faculty will also be potentially informed as to whether they are providing appropriate opportunities to enrich the learning experience in and out of the classroom. The findings of such studies will also provide faculty with useful information by assisting them in evaluating pedagogical approaches and structure learning experiences for their students. This research can be used to help student affairs professionals and faculty to create experiences, activities, and environments that are conducive to the students' overall growth in character and are in alignment with the institution's mission.

In addition, this study will add to the research on student development of spirituality, ethics, and values, the development of an understanding of people of different races and ethnic backgrounds, and the effects of student engagement on development. Additionally, this research sheds light on providing evidence-based judgments on how students benefited from the curriculum, co-curriculum, and other learning opportunities from these institutions and the relationship of the desired outcomes and the college experience (Chickering, Dalton & Stamm, 2006). Moreover, this study will provide these institutions with a tool that can be easily replicated each year utilizing the NSSE database.

Organization of the Dissertation

The remaining four chapters in this study are organized as follows: Chapter Two examines the theoretical framework in more detail and proposes a model for this study. In addition, a review of the literature related to each of the variables that make up character will be explored. Chapter Three describes the methods of analysis used, along with the data instrument, the gathering procedures, data preparation, and techniques used in the analysis. Chapter Four highlights the results of the study according to the research

questions. Chapter Five reviews the implications of the study and delineates the limitations to the research and suggestions for future research.

CHAPTER TWO

LITERATURE REVIEW

The student development movement dates back to the early twentieth century when the disciplines of psychology and sociology were emerging. First focusing on vocational guidance where personal student characteristics were matched with particular occupations, the student development movement advanced after the events of the mid-twentieth century to focus on student change and growth in college. Today, student development theory can be found in numerous fields of study (Evans, Forney, & Gudio-DiBrito, 1998), including student affairs.

By examining the relationship between student engagement and undergraduate student development, researchers and policymakers can identify and address the needs of college students by designing programs, developing policies, and creating environments that encourage positive student growth (Evans, et al., 1998). As identified by Pascarella and Terenzini (2005), the greater the student's engagement in academic work or in the academic experience of college, the greater his or her level of knowledge acquisition and general cognitive growth.

The literature review for this study focuses on the following areas:

1. What student engagement and student development is

2. A review of theories that guide the research on the relationship between student engagement and development

3. An examination of the previous literature on how engagement activities (level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus

environment) related to students' perceived understanding of people of other racial and ethnic backgrounds, students' development of a personal sense of values and ethics, and students' deepened sense of spirituality

4. A critique of the prior theoretical frameworks, and research on spirituality, morality, and diversity

5. The suggestion of a model for the examination of character using the NSSE dataset.

Because the NSSE dataset will be used in this study and senior college student responses will be measured, only studies of four-year institutions will be used. The literature review will utilize scholarly books, published articles in scholarly books, and peer-reviewed journals.

Defining and Measuring Student Engagement and College Student Development

It is important before moving on to the substance of this chapter to understand student engagement and college student development as defined in the literature. Educational engagement or student engagement as defined by Kuh (2003b) is "the time and energy students devote to educationally sound activities inside and outside the classroom and the policies and practices that institutions use to induce students to take part in these activities" (p. 25). Student engagement can be measured by the extent to which college students were engaging in educationally effective practices. College student development, as defined by Rogers (1990), is "the ways that a student grows, progresses, or increases his or her developmental capabilities as a result of enrollment in an institution of higher education" (p. 27). College student development can be measured by the gains that students make in their cognitive, affective, and social dimensions.

Understanding both student engagement and student development is of great importance to higher education; these definitions and measures will be used while examining the theoretical framework in this chapter.

Theoretical Framework for Studying the Relationship Between Student Engagement and Student Development

Many factors are causing colleges and universities to pay closer attention to student engagement as it relates to students' spirituality, diversity, and ethical development. A multitude of papers have been written and studies conducted addressing the issue of engagement and involvement and their relationship to student outcomes in college. These outcomes include not only cognitive and psychosocial development but also spiritual, diversity, and ethical development. According to Kuh (2009b) "Every reform report since *Involvement in Learning* emphasized to varying degrees the important link between student engagement and desired outcomes" (Kuh, 2009b, p. 684). This section of the review of the theoretical framework will synthesize the student engagement and student development theories that will guide this line of research.

Student Engagement

Involvement or engagement by students in higher education has been identified by researchers as educationally purposeful activities on- and off-campus that are highly associated with learning, social and personal development, and satisfaction with the college experience (Carini, Kuh, & Klein, 2006; Kuh, 2003b, 2005, 2006, 2009b; Pascarella & Terenzini, 2005; Pike, 2006; Pike & Kuh, 2005; Pike, Kuh, & Gonyea, 2003; Umbach & Wawrzynski, 2005). The theory of student engagement will provide the framework for this research because it conceptualizes how engagement practices

affect the outcome of student development. Student engagement, as defined by Kuh (2003b, 2006, 2009a), represents the amount of time and effort that students put into their studies and other activities that lead to the experiences and outcomes that constitute student success. In addition, it includes the ways in which the institutions allocate and organize their resources, learning opportunities, and services to induce their students to participate in and benefit from such activities. Kuh (2009a) established the student engagement theory using ideas from Pace's (1982, 1984) quality of effort measures, Astin's (1984, 1999) theory of involvement, and Chickering and Gamson's (1987) seven good practices in undergraduate education.

Pace (1982, 1984) emphasized in his research that the range or scope of high-quality effort is directly related to the range or scope of high achievement. The more aspects of the college experience (use of facilities and opportunities) in which the student participates at an above-average level of quality of effort, the more the student makes above-average progress toward the attainment of the objectives (different goals of higher education). In the context of this study, facilities included libraries, classrooms, science laboratories, residence halls, cultural facilities, athletic and recreational facilities, and student unions. Opportunities included (but were not limited to) contact with faculty members, student acquaintances, involvement in clubs and organizations, opportunities related to self-understanding, and personal and interpersonal experiences. Pace stated that the "breadth of involvement and breadth of attainments go hand in hand" (Pace, 1984, p. 72). Quality of effort is the best predictor of students' progress toward the achievement of important goals. Astin (1984) continued this research by further fleshing out and popularizing the quality of effort concept with the "theory of involvement." This theory

highlighted the psychological and behavioral dimensions of time on task and quality of effort.

Astin's (1984) theory of involvement stems from a proposal that he and his study group presented in the *Journal of College Student Personnel.* This proposal, titled "Involvement in Learning: Realizing the Potential of American Higher Education," became a highly respected national report. In this study, the group, headed by Alexander Astin, examined the role of student involvement in their development. Involvement, as defined by Astin, was "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 297). This "student development" related to learning and growth. Included in this theory, Astin proposed five postulates characterizing involvement (p. 298), which can be summarized as follows: (1) Physical and mental energy is invested in various objects such as activities, including belonging to clubs, and athletics (2) This involvement must be continual, though differing amounts of energy will be exerted from different students, (3) Involvement has both quantitative and qualitative characteristics, that is, time and seriousness can be determined (4) There is a direct proportional link between development and learning, both to the quality and quantity of involvement, and (5) Effectiveness of any practice or policy, educational in nature, is related to its ability to increase student involvement. The last two of these postulates are the most important for higher education. In essence, the emphasis of this study is that there needs to be active participation by the student in the learning process. It is a simple theory, which focuses on action, unlike others theories, which instead focus on subject matter, resources, and individualization of approach (Astin, 1984).

Astin revisited this initial report on the theory of involvement in 1999 when he and his study group updated the theory and confirmed that it was, with minor exceptions, still relevant. In his updated article, "Involvement in Learning Revised: Lessons We Have Learned," he restated recommendations made in the earlier work. The theory of involvement was found to be more researchable in 1999 than it was in 1984, since by then Astin (1999) had much more information available. Extensive and national databases on students were then more readily available. The data used in his continued work showed that involvement was a powerful means of increasing cognitive and affective development in college students. Astin (1999) stressed that academic, faculty, and student peer group involvement were the most important factors contributing to this development, with student peer groups having the most powerful effect. In addition, he also stressed that there were negative factors affecting development. These negative factors isolated the students from their peers by taking them away from the campus. These factors include commuting, residing at home, engaging in part-time or full-time employment off campus, and watching television. Both the original study and its follow up stressed the important impact involvement has on both the student and the institution. For both to be successful, careful planning must take place. As institutions enter an era in which they are under considerable pressure to measure outcomes, this theory becomes an important topic of discussion for institutional planning. More than ever, the theories of student development have the ability to profoundly impact the activities of colleges and universities.

Following the research by Astin (1999, 1984), Chickering and Gamson (1987) issued their report offering seven principles of good practice in undergraduate education

based on their research on good teaching and learning in colleges and universities. Their seven principles are as follows: encourage student-faculty interaction, encourage cooperation among students, encourage active learning, give prompt feedback, emphasize time on task, communicate high expectations, and respect diverse talents and ways of learning. The assumption is that when institutions create environments that encourage good practices, students take more responsibility for their education and significant gains are reported in learning, thus directly influencing the quality of the students' learning and their educational experience.

So influential was this report along with the other student engagement theories discussed, that NSSE, the National Survey of Student Engagement, based questionnaire items on the seven good practices as well as on the other educationally effective practices identified in the research providing data to colleges and universities interested in measuring various student outcomes (Pascarella, Cruce, Umbach, Wolniak, Kuh, Carini, Hayek, Gonyea, & Zhao, 2006; Umbach, & Wawrzynski, 2005). These benchmarks, which reflect various aspects of student engagement and measure the extent to which students engage, provide evidence as to whether a relationship exists for the desired student outcomes of a deepened sense of spirituality, a development of a personal code of values and ethics, and a deepened understanding of people of other race and ethnic backgrounds.

Student Development

Given the increasing interest from institutions in developmental theory, the following development theories based on diversity in learning and spirituality will also guide this research. Gurin, Dey, Hurtado and Gurin, (2002) developed a theory of

diversity and learning (during the landmark affirmative action case at the University of Michigan) hypothesizing that actual student experiences with diversity consistently and meaningfully affected the learning and democracy outcomes of a college education. This study was rooted in theories of cognitive development and social psychology. Gurin et al. (2002) found that intentionally structured racial and ethnic diversity opportunities might promote a wide range of learning and democracy educational outcomes. The researchers in their analysis defined learning outcomes as active thinking and a variety of academic skills, intellectual engagement, and motivation. In addition, they defined democracy outcomes as perspective taking, citizenship engagement, racial and cultural understanding, and judgment of the comparability among different groups in democracy. These outcomes are believed to be important during the college years, as students are at what the authors refer to as the critical developmental stage. The research supported not only curricular initiatives but also suggested that institutions should pay more attention to the types of student experiences with diverse groups of peers inside and outside the classroom. In addition, the findings supported faculty development in pedagogy and supportive college environments in which "disequilibrium and experimentation can occur" (Gurin et al., 2002, p. 362). In an ASHE Presidential Address, Hurtado, (2007) affirmed this, stating that, "Campus practices that facilitate student interactions with diversity promote a broad set of complex thinking and socio-cognitive, and democratic skills" (p. 192).

Like respect for diversity, students' spirituality has been linked to educational outcomes. Parks (1986) formulated the theory of faith development as related to the college-age student. Elaborating on Fowlers' (1981) stages of faith, her concern was

with fostering the spirituality of college students. This theory incorporates Parks' insights from her experiences with religion, theology, leadership, and ethics. Parks defined the process of faith development as a spiritual quest to make sense out of life experiences and to seek patterns, order, coherence, and relations among the disparate elements of human living (Chickering, Dalton & Stamm, 2006). Parks (2000) also added that a person of faith may deny the existence of a higher being she called God and will at a minimum be living with confidence in some center of value and with a loyalty to some cause. According to Parks (1986), "Since. . .young adults are yet psychologically dependent upon competent leadership for their formation, higher education--self-consciously or unselfconsciously-- serves the young adult as his or her primary community of imagination, within which every professor is potentially a spiritual guide and every syllabus a confession of faith" (pp. 133-134). During this period of young adulthood, as Parks (1986) refers to this stage, the college student challenges ideas that have been established and identifies new authorities through various curricular and co-curricular experiences. In addition, peers, professors, and college personnel influence the college student. What develops is a new emerging sense of inner-dependence. This theory can also be used to guide the development of values, ethics, and diversity, as they fall within the spiritual domain (Parks, 2000). Parks (1986) stated in her research that informed by the theoretical contributions of past research such as Perry, Kohlberg and Gillian, whose studies in moral and ethical reasoning led to the theories of moral development, help to ground her theory in student spiritual development.

Parks (2000) concluded in her theory that spiritual development is greatly influenced by what she referred to as a "mentoring community" (p. 134), or experiences

with compatible social groups providing the needed recognition, support, challenge, and inspiration. Parks (2000) cited the college experience being "consciously or unconsciously. . . a mentoring environment" (p. 172). These experiences, providing mentoring communities, can be found across colleges and universities. They can be found within the academic departments, within research teams, on athletic teams, in learning communities, in living-learning centers, and within resident halls. By providing these environments, colleges and universities can serve as a mentoring community, playing an instrumental role in creating a generation of students who are more spiritual and more morally and globally aware.

For this study, the faith theory will be used interchangeably between spirituality and religion (Chickering, Dalton & Stamm, 2006) and will be used to guide principles of spirituality, values and ethics, and diversity.

Integration of Student Engagement and Student Development Theories

Student engagement has been defined as representing the amount of time and effort that students put into their studies and other activities that lead to the experiences and outcomes that constitute student success, while student development is a process that focuses on intellectual growth as well as affective and behavioral changes during the college years. This distinction helps in understanding that student engagement then has an influence on student development. Similarly, Carini, Kuh and Klein (2006) suggest that both student engagement and student development focus on meaningful experiences in college that develop habits of the mind and heart that enlarge their capacity for life long learning and personal development. Student engagement is considered a good predictor of both learning and personal development. To understand the relationship

between student engagement and development, both theories need to be considered. The more students engage in effective educational practices, the more they will learn and develop a deepened sense of spirituality, a personal code of values and ethics, and an understanding of people of other racial and ethnic backgrounds. The following section will examine the NSSE benchmarks of effective educational practices as they relate to the desired student outcomes.

Previous Research on the Relationship between Educational Engagement and College Student Development

Benchmarks of Student Engagement

The National Survey of Student Engagement (NSSE), also known as *The College Student Report* is an useful assessment tool that measures the quality and extent to which students engage in educationally effective practices associated with high levels of learning and development (Banta, Pike, & Hansen, 2009; Kuh, 2009a; NSSE, 2010). The NSSE survey is divided into five benchmarks based on 42 questions capturing the critical aspects of student experiences. The five benchmarks are (1) level of academic challenge, (2) active and collaborative learning, (3) student-faculty interaction, (4) enriching educational experiences, and (5) supportive campus environment. The NSSE benchmarks used in research are a "window into student and institutional performance at the national, sector, and institutional level" (Kuh, 2003b, p. 26). They represent student behaviors and the institutional factors that are related to student success. The five benchmarks do not directly assess student learning but provide colleges and universities with tools identifying areas in which they are performing well and aspects of the college students' undergraduate experience that could be improved (Bridges, Cambridge, Kuh, &

Leegwater, 2005). Colleges and universities have the opportunity to use these benchmarks to increase student learning and development through the making of improvements in institutional policies and practices. These five benchmarks are not mutually exclusive but complementary and interdependent (Kuh, Kinzie, Schuh, Whitt and Associates, 2005). The following section will examine the literature of the five benchmarks for effective educational practices. Each benchmark can be effective in promoting student development as it relates to a deepened sense of spirituality, developing a personal code of values and ethics, and understanding diversity (people of other racial and ethnic backgrounds).

Level of academic challenge. This NSSE benchmark focuses on challenging intellectual and creative work with greater breadth and rigor considered central to student learning and collegiate quality (Kuh, 2009a). When colleges and universities emphasize the importance of academic effort and set high expectations for student performance, they promote high levels of student achievement. This allows faculty to introduce concepts such as affective skills, which might be important for influencing the institution's mission into the curriculum. The benchmark, level of academic challenge, is measured by the student assessments of such activities or conditions as how hard the student worked to meet expectations, how well the coursework emphasized critical thinking skills how well the students synthesized information and organized ideas how effective the campus environment was in emphasizing studying and academic work and how many papers were assigned exceeding twenty pages or more (Kuh, 2009a).

Sense of spirituality. Developing a deepened sense of spirituality is one self-reported student outcome the NSSE survey measures. According to Parks (2000),

"meaning-makers" can be found in the form of mentoring communities throughout colleges and universities, including challenging academics. These mentoring communities also play an important role in the creation of social and cultural environments that enable students to find a spiritual home, a sense of belonging, and a sense of being at home within themselves. Finding a spiritual home in college is critical because it enables the student to entertain and reflect on the deep questions of meaning, purpose, and authenticity, all of which are expected in the process of learning and growing in college (Astin, 2004). Providing constructive, quality, transforming engagement encounters within colleges and universities through these "meaning-makers" makes it possible for students, or "young adults," to find a spiritual home, and encourages them to hold diversity and complexity, moral ambiguity, and development of meaning and purpose open and available to learning and transformation (Parks, 2000). Additionally, the level of student engagement will also positively influence knowledge acquisitions and skills development, and is linked to desired learning outcomes such as critical thinking skills and academic performance (Carini, Kuh, & Klien, 2006).

While institutions devote most of their pedagogical efforts developing the students' cognitive, technical, and job skills, very little time is spent developing their affective skills. These skills, such as empathy, cooperation, leadership, interpersonal understanding, and self-understanding are closely related to the spiritual interior of the student (Astin, 2004). Over the last decade, research has revealed that students are entering college actively searching for the meaning of life and examining their spiritual and religious beliefs, placing high expectations on the role that the colleges and universities will play (Astin, Astin & Lindholm, 2011; Astin, Astin, Lindholm & Bryant,

2005; Bryant, Choi & Yasuno, 2003; Gonyea & Kuh, 2006; Hartley, 2004; Kuh & Gonyea, 2005; Lindholm & Astin, 2008; Rogers & Love, 2007).

The academic curriculum of colleges and universities provides the best evidence of its commitment to their core values and moral purpose (Chickering, Dalton, & Stamm, 2006; Parks 2000). In their study on spirituality, Bryant, Choi and Yasuno (2003) found that even though students became less engaged in religious activities during their first year of college, they were more committed to integrating spirituality into their lives. Using the Cooperative Institutional Research Program Freshmen Survey (CIRP), freshmen students from 50 colleges and universities across the country participated in this study. The results indicated that a positive impact on the academic experience could be achieved by encouraging institutions to support curriculum that provides opportunities for students to participate in engagement activities that reflect on the "big questions of life." The researchers recommended that in the proper context, specifically humanities courses, the classroom had the potential to become the platform for discussions of religion and spirituality without divorcing itself from its academic purpose. They concluded that engagement in spirituality and religious experiences through the curriculum positively impacts the students' academic, social, spiritual and emotional well-being. Such student outcomes have been closely linked with positive relationships with ecumenical worldviews as well, such as pluralistic competence, acceptance of others, and believing in human interconnectedness while in college (Mayhew, 2011; Bryant, 2010). Other researchers suggested a need to increase the physical and intellectual space for spiritual expression and exploration by not limiting discussion to the humanities courses but extending them throughout the curriculum (Fisler, Agati, Chance, Donahue, Donahue,

Eickoff, Gastler, Lowder & Foubert, 2009; Gehrke, S., 2008; Laurence, 1999; Rogers & Love, 2007). In her theoretical framework on faith development, Parks (2000) posited that mentoring communities might take the form within or across the academy, not just in particular courses.

In other studies the readings of spiritual texts or other materials on spirituality and religion during class were explored. When students engaged in meaningful academic activities, such as reading, discussing and critically thinking about religious and spiritual messages embedded in the curriculum, students' spiritual growth was influenced positively (Astin, Astin & Lindholm, 2011; Mayhew, 2011; Chickering, Dalton, & Stamm, 2006; Magolda & Ebben, 2006; Kuh & Gonyea, 2005; Tisdell, 2003). This involvement in spirituality-enhancing activities was not only strongly linked to a deepened sense of spirituality across all types of students, but researchers found that they may also have mild salutary effects on engagement in other desired outcomes of college including moral reasoning and racial/ethnic understanding (Kuh & Gonyea, 2006; Gonyea & Kuh, 2006).

The literature also revealed numerous other studies on spirituality in higher education related directly to mission driven faith-based colleges and universities. According to Morris, Beck and Smith (2004), Christian institutions provide more unique environments than their non-Christian counterparts. In their study, the researchers suggested that students who feel a high level of "spiritual fit" within the institutions they attend reported they were challenged to critically examine their values. Positive engagement on campus in academic challenges and with faculty, administrators and/or staff, and peers provided students with this "spiritual fit," growth in spirituality, and

greater interest in succeeding in college (Morris, Beck & Smith, 2004). Gonyea and Kuh (2006) corroborated these findings. They found that religious-affiliated colleges and universities engaged in deep learning approaches, as measured by the benchmark, level of academic challenge, better than their public counterparts. Through these formal and informal encounters, students were provided with powerful experiences, introducing them to knowledge that challenged them academically and spiritually (Chickering, Dalton, & Stamm, 2006).

Academic effort and high expectations of students are also powerful predictors of many college outcomes (Astin, 1993b; Kuh, Kinzie, Schuh, Whitt, & Associates, 2005). Inclinations towards spiritual growth were found to be related to the amount of time students spent each week on homework, studying, working hard towards good grades, and practices of self-reflection (Astin, Astin & Lindholm, 2011; Fisler, Agati, Chance, Donahue, Donahue, Eickoff, Gastler, Lowder & Foubert, 2009). The literature revealed that when students spent less time on academic work and more time playing video or computer games that featured violence, tension, or competitiveness, they were presented with challenges, and declines in the development of spiritual growth occurred (Astin, Astin, & Lindholm, 2011). Other factors were also found to relate to student distraction, and declines in growth were identified as frequent partying, engagement in fraternities and sororities, participation in the Reserve Officers Training Corps (ROTC), full-time work, and spending several hours in other time consuming activities.

Personal code of values and ethics. The literature revealed that the research on ethics and values and the collegiate experience of college students has focused specifically on moral reasoning and moral behavior. Pascarella and Terenzini (1991,

2005) cited academic challenge and development of decision-making competencies as being instrumental in exposing students to and fostering increased growth in moral reasoning. After analyzing over 172 studies, King and Mayhew (2002) corroborated this finding, determining that voluminous evidence exists that student participation in higher education is associated with strong gains in moral development, especially during college years.

Early literature before the corporate scandals of the late 1990s found that senior business students in college were more willing to engage in questionable behavior than their counterparts outside the discipline (Ruhe, 1991). Using simple statistical analysis in his study, Ruhe (1991) found that these earlier findings still held. His research and that of others indicated that colleges and universities might indeed have a greater impact on the value development of students than originally suspected. Teaching ethics in the curriculum is no longer a choice; it is a necessity often mandated by the outside agencies and the other stakeholders of institutions (Mastrachhio, 2005; Thomas, 2004). It was also indicated in his study that faculty needed to take more responsibility in preparing the leaders of tomorrow in ethics and values and that their role should be more than assisting with career choice and self-serving roles. When students are exposed to ethics and values and presented with purposeful engagement in discussion throughout their curriculum, including their professional courses, moral reasoning showed significant growth (Kuh & Umbach, 2004; Pascarella & Terenzini, 2005). Additionally, several other studies have suggested similar findings that the purposeful integration of ethical content into undergraduate professional curriculum, where students have opportunities to actively engage in critical thinking and discussion, fosters the growth of moral development. This

exposure to examining and understanding ethics and values is necessary to ensure an understanding of the importance of ethical conduct and its long-term impact on personal performance (Albaum & Peterson, 2006; Calabrese, & Roberts, 2002; Luthar & Karri, 2005).

Learning environments based on the students' experiences, simulated or real, in the area of ethics and values can also be used to teach students important ideas and issues. These methods of teaching require both student engagement and teacher facilitation (Henderson, Antelo, & St. Clair, 2010). In a recent study, Lau (2010) based her findings on using the Attitudes Towards Business Ethics Questionnaire. The researcher suggested that ethics education improved the students' ethical awareness, sensitivity, and moral development. In addition, it was found that ethics education as part of the curriculum resulted in preparing the student to think more ethically, enhancing their moral reasoning. Students with higher levels of motivation/readiness scored significantly higher in ethical decision-making than students with lower levels. This motivation or readiness referred to the willingness and vested interest in learning something that the student possessed. The results of the study suggested that the level of active engagement and vested interest in learning something positively affected the level of ethical development. Lau (2010) also identified religion and spirituality as playing an important role in the development of one's values. This finding was consistent with Parks and her theory of "meaning-making" (1986, 2000). Other studies found strong relationships to exist between religion and attitudes towards business ethics.

Additional studies found that ethics education had a positive impact on students' ethical awareness, sensitivity, and moral reasoning. Luthar and Karri (2005) supported

the findings of this previous research linking ethics education and the positive impact on moral reasoning. They observed that by combining stand-alone ethics courses with exposure to ethical issues in the business curriculum, there was a greater impact on sensitizing the students to ethical considerations in making business decisions. Mayhew and King (2008) found that students who enrolled in courses with morally explicit content had more advanced levels of moral reasoning than their counterparts enrolled in courses with morally implicit content. The morally explicit content in these courses may provide students with more practice in critically thinking about moral issues. The evidenced higher scores in moral reasoning suggest that engagement in academic challenge related to moral reasoning development positively affects a student's development of ethics and values.

Understanding people of different racial and ethnic backgrounds. Studies on growth in understanding people of different racial/ethnic backgrounds have been approached using various frameworks. The three most common approaches include diversity in the college setting, or the proportional mix of students on campus, interaction with peers of different racial/ethnic backgrounds, and programmatic efforts through coursework and the curriculum that help students engage in racial/ethnic diversity (Terenzini, Cabrera, Colbeck, Bjorklund & Parente, 2001). In an effort to provide evidence supporting affirmative action, Gurin, Dey, Hurtado and Gurin, (2002) presented a framework for understanding the fostering of diversity and its effects on the cognitive growth of college students, including the learning outcomes of active thinking skills, intellectual engagement and motivation, and a variety of academic skills. Their findings were consistent with many other studies, that the actual experiences students have inside

and outside of the classroom meaningfully affect the student's development of the important learning and democratic outcomes of college.

The literature also revealed that students' engagement with diversity, whether in the curriculum, classroom, and other formal interventions, were associated with increased awareness and understanding of racial/ethnic issues. According to Umbach and Kuh (2006), engagement with diversity enhances the educational experiences of all students. Diversity not only provides substantive outcomes of the college, but it also shapes the way students think about themselves in relation to others, the nature of the activities in which they engage, and the value they place on attitudes towards others in working with diverse groups of people in college. Research has corroborated the fact that intellectual development can be enhanced in several ways, through learning outcomes, openness to understanding diversity, and higher levels of academic development (Astin, 1993b; Cole, 2007; Denson, 2009; Denson & Chang, 2009; Gurin, Dey, Hurtado & Gurin, 2002; Kuh, et al., 2005; Pike, Kuh, & Gonyea, 2007; Pope, Mueller & Reynolds, 2009).

In a study by Cole (2007) focusing on student-faculty contact and intellectual self-concept, research findings indicated that components of the classroom environment that enhanced students' active learning included instructors enthusiastically engaging students in the learning process, valuing the students' comments, creating racially/ethnically structured groups during class, linking out-of-class social events with in-class content, and allowing students the opportunity to constructively challenge their professor's ideas. The researchers noted that not only will such practices enhance the students' learning, but they will also enhance student-faculty interactions, positive diversity-related issues, and intellectual self-concept. Participants in this comprehensive longitudinal study were

7,063 fulltime students from 119 predominantly White institutions. Data were collected using the 1994 freshman survey data, using the Student Information Form (SIF), and the 1998 follow-up College Student Survey (CSS).

Courses that address race and ethnicity have also been found to be vitally important in higher education (Gurin, Lehman &Lewis, 2004). In a study by Denson and Chang (2009), using data from the Cooperative Institutional Research Program (CIRP), previous findings were confirmed, indicating that when students engage in interaction more frequently across race or engage with diversity by taking ethnic studies courses, they tend to report higher levels of self-efficacy and self-change concerning the level of academic skills and racial-cultural engagement. These measurable positive effects occurred across all students irrespective of a student's own frequency of engagement with diversity.

Using NSSE data from a sample of 428 colleges and universities, Pike, Kuh and Gonyea (2007) focused their study on determining whether affirmative action in the college admissions process is justified. By examining the direct and indirect relationships between student-body diversity, the amount and quality of interactions among diverse groups of students, and the students' gains in understanding diversity, they found that this practice of proactive recruiting of students from diverse backgrounds for colleges and universities was more effective in creating a diverse campus than relying on applicant pools. Additionally, they found that the effects of this policy were consistent with other studies: that engagement with diverse perspectives emphasized in the curriculum as well as encounters with diverse peers, faculty, and staff members impelled them to think and respond in new, more complex ways.

Active and collaborative learning. When students engage in active and collaborative learning, they learn more and they are more intensely involved in their education (Kuh, 2009a). By learning in different settings, collaborating with others in solving problems, and mastering difficult material, students become prepared for the messy unscripted problems that they will encounter in their daily lives, during and after college. In addition, the benchmark active and collaborative learning is measured by student assessments of other activities such as asking questions in class or contributing to class discussions, presentations, working with students on projects during class, working with classmates outside of class, participating in a community-based project as part of their coursework, and discussing ideas from their readings or classes with others outside of class (Kuh, 2009a).

Sense of spirituality. Active and collaborative learning has been recognized as a powerful approach in achieving desired student outcomes. Voluminous research has been undertaken to determine how to best encourage it in college settings. Parks (2000) points out that "constructive, transforming encounters with otherness and true exchange of ideas are facilitated in mentoring communities, where hospitality to otherness is prized and practiced" (p. 141). This type of support has been found to be critical in helping students increase their spiritual growth. Additionally, peer and mentoring relationships with family members, co-workers, and others have been found to have a profound effect on students' spiritual beliefs and college experiences (Astin, Astin & Lindholm, 2011).

A substantial amount of both quantitative and qualitative research suggests that active and collaborative learning has a positive impact on various student outcomes, including spirituality, moral reasoning, and diversity (Colby, Ehrlich, Beaumont, &

Stephens, 2003). For example, Astin, Astin & Lindholm (2011) in their national study on the spirituality of the college student found a strong positive relationship with active and collaborative learning and spiritual growth. When student-centered approaches were encountered inside and outside of the classroom, students showed a reported positive growth in spiritual development. They identified student engagement in course-related community service, peer tutoring, helping friends with personal problems, group projects as part of coursework, encouraging students to evaluate each other's work, and asking students to recommend and select course topics as the most powerful pedagogical approaches to achieving spiritual growth.

While there was very little research on active and collaborative learning and its relationship with spirituality, the research that was found underscored the power of peer relationships. In a study by Holmes, Roedder and Flowers (2004), the researchers conducted a qualitative study involving four students at a White university in the "Deep South." They found that the relationships formed shaped the students' academic and social experiences in college. Their interactions outside of the classroom provided the students with professional, spiritual, and educational advice and encouragement. In addition, they found that the data revealed gender differences in how women and men form peer relations. While men continue to seek out new relationships throughout their academic experience, women were found to maintain the same group of friends while attending college. Additionally, the findings on gender differences in peer relationships were supported in a national and longitudinal study by Bryant (2007) using the Cooperative Institutional Research Program (CIRP) Freshmen Survey. Other studies using larger samples also supported the findings on settings outside the classroom

(Donahoo & Caffey, 2010; Kuh & Gonyea, 2005; Morris, Beck & Smith, 2004). It was corroborated in these studies that discussing ideas from one's readings or class experiences with others outside the classroom with similar interests, such as on-campus religious organizations, churches and religious leaders, had positive effects on spiritual growth. Parks (2000) refers to these organizations and individuals as a form of community or "otherness."

Personal code of values and ethics. Students do not learn by just sitting in class and listening to their instructors. In order for the student to make gains, more than just lower order thinking must occur. They must talk about and experience what they are learning, making it part of themselves (Chickering & Gamson, 1987). They must be able to relate and apply to their daily lives what they are learning about rather than memorizing prepackaged assignments and spitting out answers. Pedagogical methods that actively involve students in more engaging opportunities and encourage interaction with peers and faculty enhance student content learning, increase critical thinking skills, and assist in the transfer of learning to new situations, including those related to moral and civic development (Colby, Ehrlich, Beaumont, & Stephens, 2003; Pascarella &Terenzini, 2005).

Pascarella & Terenzini (2005) noted that there is apparent evidence in the literature supporting engagement in what is referred to as "low-density" peer networks. Low-density peer networks are characterized as multiple independent interactions with a diversity of individuals who don't typically interact with one another. This interaction can occur in the classroom, outside of the classroom, or within the community. These "low-density" peer networks can expose students to diverse intellectual and social

environments during college, resulting in the fostering of gains in moral development. While these "low-density" networks increase moral growth, "high-density" networks such as relatively homogenous peer groups, including fraternities and sororities, have been found to inversely affect moral development by inhibiting growth in principled reasoning. There is also evidence that the creation of "low-density" peer networks expose students to other ethically oriented behaviors such as differing ideas, values, and democratic outcomes (Hurtado, 2005; Hurtado, Engberg, Ponjuan, & Landreman, 2002; Mayhew & Engberg, 2010).

Previous studies on student-centered pedagogical approaches found that projects such as simulations, case studies, and role-playing (the most popular methods) provide students with not only cognitive but also emotional involvement, which was essential for them to effectively learn about ethics (Bush, Gutermuth & West, 2009; LeClair, Ferrell, Montuouri, & Willems, 1999; McWilliams & Nahavandi, 2006; Stevens, Harris & Williamson, 1993). Students taking on the role of the various stakeholders in group simulations were better able to identify the conflict presented, recreate the power, pressures and information, develop a greater awareness and an appreciation for the complexity that affects ethical decision-making at work. When students engage in collaboration with others in groups to solve problems, reflect, and model, they are encouraged to work together to facilitate learning and apply knowledge gained in class in a variety of settings. In addition, the research suggests that the role of the instructor in developing an atmosphere of trust and modeling was critical to the students' success. In creating this atmosphere, the instructor engages in discussing differences, acknowledging various viewpoints, validating legitimate points of view, and creating a place that is

conducive to open debate and the sharing of ideas. Becoming involved in the educational process allows them the ability to interact with both peers and instructors.

Use of community-based projects as a part of courses is another instructional technique that encourages students to engage in moral actions and be socially responsible. Research (Bush, et al., 2009; Kuh, 2003b; Kuh & Umbach, 2004) has found that using both qualitative and quantitative methods, replacing classroom examples with real community problems creates experiences for students to engage in the harsh realities of poverty, race, age, and gender issues. The research suggests that students' participation in community-based service learning experiences as part of a regular course prepare them to conduct their lives in an ethically enlightened manner. In Kuh and Umbach's (2004) study using NSSE data, they were able to determine the effects. In doing so, a broader sample of 49,692 students at 586 institutions was used, while the Bush et al. (2009) study was limited to a smaller sample size at four colleges and universities. Both studies concluded that active and collaborative programs such as service learning positively affects the student's development of a personal code of values and ethics.

Understanding people of different racial and ethnic backgrounds. Evidence supporting the impact of college attendance on students' racial/ethnic attitudes is voluminous. Previous findings confirm that socialization with someone of another racial group and discussing racial and ethnic issues benefit various educational outcomes (Astin, 1993a, 1993b). From these studies it is evident that active and collaborative engagement with people of other racial/ethnic backgrounds plays an important role in the development of diverse perspectives. According to Kuh (2003a), students are more likely to engage in active and collaborative learning when they are exposed to diversity. Using

the NSSE dataset, Kuh (2003a) corroborated the findings of Hurtado (2001), who utilized the Cooperative Institutional Research Program (CIRP), that students who engaged in active and collaborative learning with peers from a different racial/ethnic background reported more growth in various educational outcomes. These outcomes included problem-solving skills, general knowledge, critical thinking, interpersonal skills, and academic self-confidence.

Interactions including peer tutoring and peer teaching, discussion about racial issues in and out of the classroom, and discussions with peers from different racial, ethnic, and/or cultural backgrounds were also found to have substantial effects on personal development. A study by Whitt, Edison, Pascarella, Terenzini and Nora (2001), using second and third year college students and building upon prior research, found that interactions with diverse peers, including conversations on topics associated with differences which challenged previously held beliefs, were also associated with significant gains in openness to diversity and change. Also noted in this study were similarities to "high-density" peer networks, negative associations related to women's participation in social sororities and White males' participation in social fraternities.

Cross-Racial Interactions (CRI), another active and collaborative pedagogy, also tends to promote significantly higher gains for college students in their knowledge of and ability to accept races/cultures, grow in general knowledge, critically think, problem solve, and develop intellectual and social self-confidence. More recently, a few studies (Chang, Denson, Saenz & Misa, 2006; Saenz, Ngai & Hurtado, 2007), using more elaborate statistical analysis, revealed that if institutions choose to utilize active and collaborative learning principles such as academic support services including tutoring

with diverse groups of students, students will not only be able to comprehend their subject matter better, but they will also be able to recognize the contributions of others from diverse backgrounds to achieving that comprehension. Saenz et al. (2007) suggested that these services provide "safe spaces" in which students can learn from one another and develop both academically and socially. In offering these services, institutions create positive inter-group relations that are key to enhancing the students' democratic skills and preparing them to negotiate through the many differences in today's diverse society. Chang et al. (2006) found in their study that by using Hierarchical Linear Modeling (HLM), they were better able to determine the student-level effect. The findings suggest that institutions with higher levels of Cross-Racial Interaction reported larger gains in student knowledge of and ability to accept different races/cultures, critically think, problem solve, and develop intellectual and social self-confidence.

Building upon the prior research on cross-racial interaction, Chang, Astin & Kim (2004) found that when students were exposed to thoughts and ideas different from their own, disequilibrium, dissonance, or incongruity occurs. If students process the new information by reexamining their assumptions and beliefs through complex thinking, they may enhance their viewpoints and reduce or resolve any incongruence or dissonance. In order for institutions to provide this active and collaborative learning environment, it becomes beneficial that they enroll a diverse student body (Chang, 1999; Chang, Astin & Kim, 2004). Thus, cross-racial interactions, which may lead to changes in the students' values and beliefs, can be achieved.

In another study, Pike, Kuh and Gonyea (2007), found that institutional mission was directly related to gains in understanding diversity for seniors but no relationship was

found with freshmen students. Based on these findings the researchers suggested that the gains occur after cumulative effects over several years and that the quality of interpersonal relationships appears to be a function of institutional characteristics such as programs and practices that enhance student engagement. Engagement with peers provided positively related gains in understanding diversity.

Chickering et al. (2006) reported on the work of the Center for the Study of Values in College Student Development at Florida State University and their national survey of college and university presidents. The survey identified Principles and Practices for Character Development. The presidents of the colleges reported that creating a diverse and inclusive community was vital in the promotion of character development and that academic classes and curricular programs were exemplary practices on their campuses.

Student-faculty interaction. The central premise of this benchmark is that students learn firsthand when interacting with faculty how experts think about and solve practical problems. This interaction can occur either in or out of the classroom. The key to this benchmark is substantive contact. Casual contact with faculty members has little if any effect on the learning gains or effort of students. In order for this indicator to be meaningful, the teachers become models, mentors, and guides for continuous life-long learning. This benchmark is measured by student assessments of discussion of grades or assignments with instructor, career planning with faculty advisor or mentor, discussing of ideas from readings or classes with faculty member outside the classroom, working with a faculty member on a research projects, working on committees, and student-life activities outside of the classroom (Kuh, 2003b, 2009a). According to Chickering et al.

(2006), institutions that give high priority to student-faculty relationships through regular contact and mentorship are markers of institutional commitment, especially if they encourage students to reflect on spirituality, purpose, and meaning.

Sense of spirituality. Parks (2000) refers to student-faculty relationships as the "backbone of any educational institutions" (p. 166). Like Chickering et al. (2006), she hypothesized that when students and faculty form meaningful relationships, the "young adult," or college student, is offered a powerful environment of encouragement and the possibilities of beckoning their spirit, forming meaning, purpose and faith. Parks (2000) describes the role of faculty member as a mentor or potential spiritual guide "who convenes and mediates among multiple perspectives, composing a trustworthy community of imagination--a community of confirmation and contradiction" (p. 169).

The research has shown that one such way of encouraging spiritual growth is through the way faculty approaches pedagogy. Pedagogy plays an important role in student-faculty interaction (Chickering, Dalton & Stamm, 2006). For public institutions, infusing spirituality into the curriculum becomes a difficult task since the separation of church and state prevents faculty from incorporating spiritual practices in the classroom. Mission driven faith-based and private institutions may not face the strict federal guidelines imposed on secular universities, though, and are more inclined to implement spirituality into their curriculum (Hodge & Derezotes, 2008).

Student-centered pedagogy is designed to promote student active engagement in the learning process and has also been found to enhance intellectual curiosity, develop superior creativity, drive, and leadership skills, and lead to higher-grade attainment (Lindholm & Astin, 2008). These actions of faculty become instrumental both in and out

of the classroom in impacting students' learning and development. In a study conducted by Lindholm & Astin (2008) using the triennial national Faculty Survey conducted by UCLA's Higher Education Research Institute (HERI), faculty responded to questions based on demographics, values, work-related activities, institutional perceptions, and affective measures. This study focused specifically on faculty's self-reported level of spirituality and their personal, professional, and organizational correlates of student-centered pedagogy. It was hypothesized that the teaching methods faculty elect to use inside and outside of the classroom reflect who they are and what they believe. Because they act as agents for the institution, they have the ability to impact student experiences as well as student development. Results from the analysis supported that faculty who rated themselves high in spirituality are employed at institutions that place value on good citizenship or character development such as Catholic, other religious, and liberal arts colleges and universities, employ student-centered approaches in their teaching, and place great value on students' personal development. In addition, faculty members who are inclined to use student-centered approaches are also more likely to imbue their own values and those of the institutions upon their students. Additionally, these faculty members want to be not only good teachers but serve as role models for their students. Faculty who believe that teaching is a critical part of their role as a professor display higher levels of interaction outside of the classroom with their students then those who do not (Cox, McIntosh, Terenzini, Reason, & Quaye, 2010). These findings are important as they encourage positive interactions between students and faculty.

Astin et al. (2011) described two engagement activities related to student-faculty interaction that have been found to increase college students' spiritual growth. Using the

Cooperative Institutional Research Program (CIRP) and the College Students' Beliefs and Values (CSBV) Survey, the researchers studied 14,527 freshmen student's spiritual growth starting with an initial survey in 2004 and a follow up in 2007. Based on the overall results of the study, they found that students whose professors encouraged them to explore questions of meaning and purpose are more inclined towards spiritual questing than students who interact with faculty who are "not at all" inclined to do so. Five measures were used in their analysis: spiritual quest, equanimity, ethic of caring, charitable involvement, and ecumenical worldview. Questing in this study was used as it related to finding, attaining, seeking, developing, searching, and becoming. The researchers hypothesized that faculty who encourage this interaction, are more inclined to engage in student-centered learning approaches. Additionally, they found that students who frequently interacted with faculty and were encouraged inside and outside of the classroom in discussing religion and spirituality developed spiritual growth.

In a recent investigation, Bryant (2011) looked to explain the academic encounters that tend to provoke religious/spiritual struggles, which enhance ecumenical worldview, one of the five measures of spirituality from the Astin et al. (2011) study. According to Astin et al. (2011), ecumenical worldview is "the extent to which students are interested in different religious traditions, seek to understand other countries and cultures, feel a strong connection to all humanity, believe in the goodness of all people, accept others as they are, and believe that all life is interconnected and that love is at the root of all the great religions" (p. 21). Using six constructs in her analysis from the Cooperative Institutional Research Program (CIRP) and the College Students' Beliefs and Values (CSBV) Survey, Bryant (2011) focused one of her measures on the salience

of religion/spirituality in academics. Students were asked to rate important questions in the study related to faculty interaction. The items included the discussion of religion and spirituality in class with professors, personal expression of spirituality and the exploration of questions of meaning and purpose, discussions on ethical issues, and having faculty who acted as spiritual role models. Bryant (2011) found in her study that when students encounter faculty that provoke religious/spiritual struggles through their interactions, they develop a deepened sense of spirituality and along the way a pluralistic-mindedness.

Personal code of values and ethics. For high quality learning to occur as it relates to values and ethics, meaningful interactions between the students and their instructors is essential. Pascarella and Terenzini (2005) concluded that from their previous synthesis on moral reasoning, exposure to and interaction with individuals at more advanced stages of principled reasoning enhanced moral reasoning in college students. According to Pascarella and Terenzini (2005), the theoretical framework guiding most of the research in higher education and its impact on moral reasoning and judgment has been Kohlberg (1984). Social interaction is an important component in the framework for the development of moral reasoning and judgment to occur.

In their earlier research, Bruess & Pearson (2000) examined the relationship between Chickering and Reisser's (1993) seven vectors of student development and the development of moral reasoning in college students. The researchers found a high correlation between moral reasoning and mature interpersonal relationships. According to Chickering and Reisser (1993), in order for mature interpersonal relationships to occur, students develop relationships with faculty, have interaction and cooperation in the classroom, and have significant opportunities to learn about diversity. Using the Defining

Issues Test, one of the most visible instruments in the research on moral reasoning, and the Student Development Task and Lifestyle Inventory, the researchers suggested that it was critically important to develop relationships as part of the development of care-based moral orientations.

In a follow-up study on identity and moral development, Pearson and Bruess (2001) identified that student engagement in relationships inside and outside the classroom played a significant role in their growth. Their research found that peers, faculty, family and mentor relationships all were important factors in shaping identity and moral development, but that differences occurred based on the students' gender. The researchers found that while women found engagement with peers and family more important, males interacted more frequently with faculty through forming mentoring relations. These relationships were found to have significant impact on student development. Gender differences related to student-faculty interaction were also found to be consistent with the findings in other research (Kim & Sax, 2009; Sax, Bryant & Harper, 2005). While neither study discussed was conducted for the purposes of studying student-faculty interaction, both provide insight into the power of relationships and moral development.

Research has also indicated that pedagogy can have a positive impact on the student's development of values and ethics (Colby, Ehrich, Beaumont & Stephens, 2003; Cox, McIntosh, Terenzini, Reason, & Quaye, 2010; Pascarella & Terenzini, 2005; Umbach & Wawrzynski, 2005). Student-centered approaches that actively involve students in the learning process and provide opportunities to frequently interact with faculty members enhance the growth in student satisfaction, moral and civic development

and other cognitive skills (Astin, 1999; Colby, Ehrich, Beaumont & Stephens, 2003; Kim & Sax, 2011; Kuh & Hu, 2001). The pedagogical approaches taken by faculty found in the research included career planning, discussion of grades and assignments, challenging professors ideas in class, working with faculty on research projects, and feedback. According to Pascarella and Terenzini (2005), the quality of student interaction with faculty along with the quantity, are important factors in determining student outcomes.

Understanding people of different racial and ethnic backgrounds. There is increasing evidence that higher education has a positive impact on student development in understanding people of different racial/ethnic backgrounds (Astin, 1993a, 1993b; Gurin, Dey, Hurtado, Gurin, 2002; Hurtado, 2005; Pascarella and Terenzini, 2005; Parks, 2000). Pascarella & Terenzini (2005) concluded in their analysis of literature on how college impacts students that student-faculty interactions were strong predictors on student growth and development and that these interactions have an influence on students' educational gains as related to diversity. Astin (1984) identified in his theory of involvement that when diverse groups of students have similar interests and aspirations, or when they seek faculty mentorship, the potential for enhancing their learning outcomes exists. This frequent and high quality interaction can help in the socialization of students to the normative values and attitudes of the institution.

In Astin's (1993b) seminal research on how student outcomes are affected by environments, the researcher provided data for 82 different measurements of student outcomes. The measures covered cognitive and affective development, including attitudes, values and beliefs. Astin (1993b) maintained that high quality interactions between students and faculty provide positive gains in various student outcomes. Astin

(1993b) found that student-faculty interactions were positively correlated with every self-reported outcome related to personality and attitudinal outcome. Included in these outcomes were social activism, promoting racial understanding, and participating in programs to clean up the environment. The practices identified in this study relating to student-faculty interaction measurements included working with a professor on a research project, assisting faculty in teaching a class, being a guest in a professor's home, and hours per week spent talking to faculty outside of class. Astin (1993b) concludes, "These findings highlight the critical importance to student development of frequent interaction between faculty and students" (p. 384).

Using Astin's (1993b) research in their conceptual model, Lundberg & Schreiner (2004) focused on how student-faculty interactions predict learning for students of various racial/ethnic groups. Based on the results of the study, the data corroborated Astin's (1993a, 1993b) findings that quality relationships that students have with faculty significantly predicted learning. Their findings were consistent across all racial/ethnic groups. Anaya & Cole (2001) studied Latino students in particular. Using the College Student Experience Questionnaire (CSEQ), they found that frequent interaction positively impacted academic achievement. The data suggest that only three of the variables studied were statistically significant "(a) [experienced] quality relationships with faculty, (b) talked with faculty, and (c) visited informally after class with faculty" (p. 11). While these studies did not focus on developing an understanding of people of different racial/ethnic groups, the findings are important because they support high quality student-faculty interactions and their relationship to student learning.

Some researchers have taken other approaches in their studies on student-faculty interaction. Using a similar analytical technique used in his prior research, Cole (2007) explored interracial interactions and their influence on student-faculty interactions (Anaya & Cole, 2001). The results were consistent with other studies; from a multicultural context, students who had course-related faculty contact and developed mentoring relationships with their instructors were more likely to report gains in intellectual development (Astin, 1984). Additional findings from this research not previously studied suggested that students who interacted with faculty in regard to the critique of their work were negatively affected in their intellectual development, but constructive feedback that promoted mastery learning reportedly enhanced students' intellectual development. This study particularly noted that when faculty become more aware of the types of interactions students' have with diversity and take an active role in and out of the classroom in the integrating of interracial interactions, positive effects on student-faculty relationships and students' intellectual development increases. Consistent with the evidence in the literature, the researcher also concluded that students might perceive the campus as a more interpersonally engaging environment that is racially/ethnically rich, where students can critically think about race-related social issues through interracial interactions (Hurtado, Dey, Gurin, & Gurin, 2003). Hurtado (2001) suggests that interacting with diverse peers, faculty and curricula has a significant positive effect on developing competencies needed to function in an increasingly diverse society (Hurtado, 2001).

Other studies looked at the broad impact of student-faculty interaction. Using the National Survey of Student Engagement (NSSE), Umbach and Wawrzynski (2005) found

that students who engaged with faculty outside of the classroom reported higher levels of engagement and learning. Additionally, out-of-classroom activities were also enhanced when faculty members engaged in active and collaborative learning activities. While not a variable considered in this study, active and collaborative pedagogy that includes cross-racial interactions (CRI) tends to promote significantly higher gains for college students in their knowledge of and ability to accept races/cultures, growth in general knowledge, critical thinking, problem solving, and developing intellectual and social self-confidence.

Enriching educational experiences. Enriching educational experiences that lead to the goals of academic programs are those that complement learning in and out of the classroom. Diversity is one of the most important among these enriching experiences as it teaches students valuable lessons about themselves and allows them to gain an appreciation for other cultures. In addition, technology facilitates collaboration between peers and faculty. Participating in internships, community service, and senior capstone courses also allow students to integrate and apply their gained knowledge. The benchmark also includes the following: participation in co-curricular activities, involvement in study abroad, partaking in serious conversations with students of different religious beliefs, political opinions, or personal values, having serious conversations with students of different race or ethnicity, and having contact with students of different economic and social backgrounds (Kuh, 2006, 2009).

Sense of spirituality. Various forms of complementary learning experiences inside and outside of the classroom have the potential to contribute to growth in various student outcomes. Parks (1986) argued that single mentoring figures are insufficient in reordering one's faith or spiritual growth and that growth comes only with grounded

experiences within mentoring communities. These communities offer the college student a network of belonging with challenge and support where the discovery of knowledge occurs when self and world interact (Parks, 1986). Like the NSSE benchmark, enriching educational experiences, Parks (1986) specifically cited curricular and co-curricular engagement such as "lecture, research, travel, film and other art forms, field study, internships, the employment of various technologies, laboratory experiments, participation in communities of genuine diversity, and so on" (p. 144) as forms of mentoring communities, or one of the three interdependent components of her model needed to assist in the fostering of faith or spiritual development. After revisiting her earlier work on faith development due to the surge in the quest for spirituality, Parks (2000) added residence halls, learning communities, and living-learning communities as additional mentoring communities within the college environment.

In a comprehensive longitudinal research project on spiritual development in higher education, Astin, Astin, & Lindholm (2011) found several critical types of experiences that promoted spiritual growth in students. One such curricular experience noted by NSSE in their enriching educational experience benchmark that positively affects not only a student's academic performance but also his or her spiritual growth is the engagement in study-abroad programs. A well-designed study-abroad program, according to the researchers, not only enhances a student's growth in spirituality but also exposes them to new cultures and languages, an understanding and appreciation for other racial/ethnic backgrounds, and the ability to think globally rather than nationally and ethnocentrically. Additionally, community service, or service learning, not only embedded within academic coursework, but engaged in outside of the classroom has also

been found to have a positive impact on a student's overall GPA and is a powerful means for enhancing spiritual growth. Service learning, according to Astin et al. (2011), provides students with ways to "identify and direct their personal goals through an exploration of moral and ethical positions about themselves and their communities, and to relate larger social issues to their own lives" (p. 146). Other opportunities that take place within the classroom that positively influence students' spiritual development is the interacting with diverse students different from themselves. When students are provided with opportunities to engage in discussing different social views, their self-confidence, educational aspirations, cultural awareness, and commitment to racial equity is positively affected. Accordingly, these findings have also been found to enhance the development of students' values and ethics, another dependent variable in this study.

Astin et al. (2011) also addressed out-of-the-classroom activities that have a positive affect on a student's spiritual growth. Co-curricular activities that encourage peer relationships such as clubs and organizations, or belonging to religious organizations, contemplative practices and extra-mural sports are positively related not only to student satisfaction but also to the development of interpersonal skills and self-knowledge. The researchers found that in order for these activities to enhance the students' spiritual growth, they must engage in quality experiences that have constructive ends. The researchers however did identify impediments to spiritual growth in their findings. The study indicated that spiritual growth could also be negatively affected by participation in some activities. Partying while in college, frequent playing of video games and watching television were found to have a negative affect in the development of a student's spirituality.

Kuh and Gonyea (2005) noted in their study using the 2004 NSSE dataset that students who frequently engage in spirituality-enhancing activities inside and outside the classroom are strongly linked to the development of a deepened sense of spirituality. In addition, they are also more likely to engage in a broader cross-section of collegiate activities such as attending cultural events, performing community service, devoting more time to extra-curricular activities, and exercising more. Furthermore, they found that students of different racial and ethnic groups vary in the frequency of their participation in spirituality-enhancing activities. When compared to Caucasian students, African-American students led the group in engagement, benefiting more from spirituality-enhancing activities. This finding has been consistent across many studies on spirituality and engagement but does not suggest that Caucasian students do not value spirituality or practice religion. The research simply indicates that on average, these things are more important to African Americans, Asian/Americans, and Hispanics or Latinos/as (Donahoo & Caffey, 2010; Kuh & Gonyea, 2005; Mayhew, 2011).

Other studies indirectly related to spirituality (Elkins, Forrester & Elkins, 2011; Ferrari, Cowman, Milner, Gutierrez & Drake, 2009; Ferrari, McCarthy & Milner, 2009) at faith-based institutions that provide mission-related activities found that the students appreciated and welcomed co-curricular activities related to their college's mission. Students who participated in these activities were more highly engaged in civic and global matters as they related to their spirituality rather than their religious beliefs or the specific beliefs of the institution. The students who reported increases in their engagement in co-curricular activities also reported a greater tendency towards mastery and performance goals such as outperforming their peers in grades, learning course

materials and demonstrating increased intellectual curiosity and mastery in their coursework. Though the focus of this study was not specifically spirituality, it was discovered in the research process that spirituality played a role in students' engagement in the co-curricular activity.

Magolda and Ebben (2006) in their research utilized an ethnographic/anthropological lens to study a faith-based organization at a public college in the Midwest. Their findings were consistent with the outcomes of prior student involvement research (Astin, Astin & Lindholm, 2011; Bryant, Choi, & Yasuno, 2003; Kuh, Kinzie, Schun, Whitt & Associates, 2005). When students were provided with campus programming with people of similar interests, a clear understanding of the group's mission and numerous and progressive engaging learning opportunities, they maximized their learning. Those students in the study who joined the Students Serving Christ (SSC), an organization dealing with spirituality and religion, actively became involved in a richer learning experience, had an opportunity to improve themselves, and contributed to their college satisfaction. Other studies found that students' participating in faith-based activities are more likely to exhibit a stronger sense of spirituality, a stronger connection to others and an involvement in charitable activities (Elkin, Forrester, & Elkin, 2011).

What takes place outside of class for the college student is the most significant educational experience in affecting student learning and personal development according to Kuh (1995). Kuh (1995) noted in his research that "what happens outside of the classroom--the other curriculum--can contribute to valued outcomes of college" (p. 124). He cited various valued outcomes of college such as self-awareness and appreciation for

human diversity as being positively related to participation in extracurricular activities. Consistent with other research, the quality of the activity was important (Astin, 1993; Astin, Astin & Lindholm, 2011). Additionally, the study found that peers provided the most important influences, especially in the cognitive, interpersonal, and humanitarian areas.

Personal code of values and ethics. Complementary learning opportunities inside and outside the classroom augmenting academic programs can lead to students learning valuable things about themselves and others (Kuh, et al., 2005). According to Pascarella & Terenzini (2005), certain experiences that provide divergent perspectives or cognitive moral conflict had a noticeable influence on students and their development of values and ethics, or moral reasoning. In order for developmental impact to occur, these transforming experiences of meaning-making must be derived from their multiplicity, emotional immediacy, and their encompassing quality within the mentoring community (Bryant, Gayles & Davis, 2012; Colby, Ehrilich, Beaumont & Stephens, 2003; Parks, 2000). Many studies on the development of a personal code of values and ethics related that co-curricular activities such as membership in student organizations, internships, participation in recreational sports, and community service have shown that these factors had significant effects on the students (Astin & Kent 1983; Pascarella & Terenzini, 2005). Mayhew et al. (2010) found that co-curricular activities and programming that helps students make meaning can shape a student's moral learning. According to Bryant et al. (2011), in order for students to become more committed to a civic and moral education, they must engage in curricular and co-curricular experiences that are thoughtful and reflective.

The literature documents that civic responsibility and moral values are inseparable and that one implies the other (Chickering et al., 2006; Colby et al., 2003; Mayhew & Engberg, 2011; Pascarella & Terenzini, 2005). Civic responsibility is an important outcome in higher education. Astin and Sax (1998) found that student involvement in community service was significantly associated with gains in a student's sense of civic responsibility. While service learning opportunities can occur independently of the college experience, such as through non-collegiate organizations, collegiate organizations and coursework provide most of the opportunities for college students. The researcher found that students who engaged in community service as part of their course work contributed more to their growth in civic responsibility, civic values, and social consciousness than those who did not. Service learning also was found to be a powerful activity for institutions to fulfill their mission of service to the community.

Engagement with peers through social and extracurricular activities is also part of the enriching educational experiences for college students. Developing meaningful relationships with diverse peers provides opportunities for students to consider different perspectives and stimulates moral reasoning development (Astin & Sax, 1998; King & Mayhew, 2002; Mayhew & Engberg, 2010; Mayhew, Seifert, & Pascarella, 2011).

Other enriching educational experiences such as interacting with students of different religious, political, racial, or ethnic backgrounds have been found to teach students valuable things about themselves and other cultures. Mayhew and Engberg (2010) found that interactions with diverse peer groups within the classroom when intentionally structured by the faculty enhanced the potential for students to learn and significantly increased moral reasoning, while students who reported higher amounts of

tension or were guarded or silent in their interactions with diverse peers experienced smaller gains in moral reasoning.

Pearson and Bruess (2001) supported previous findings in the literature in regard to co-curricular activities. While students indicated that their personal values played a significant role in their moral development, curricular and co-curricular activities were frequently mentioned as important. The study also provided a clear picture of gender differences in student development. First-year students and women mentioned the importance of curricular activities more than co-curricular activities, while fourth-year students and males mentioned co-curricular activities more often than curricular. These findings suggest the importance of co-curricular activities and of providing opportunities for students to develop relationships on campus both in and out of the classroom.

Understanding people of different racial and ethnic backgrounds. Gurin, Dey Hurtado and Gurin (2002) noted that understanding people of different racial/ethnic backgrounds contributes to achieving the central goal of higher education. Certain activities and conditions identified by NSSE related to enriching educational environments encourage diverse interactions. In addition to the curricular and co-curricular activities, the benchmark includes talking with students of a different race or ethnicity and encourages contact with students from different economic, social, racial or ethnic backgrounds (NSSE, 2007).

Pascarella and Terenzini (2005) concluded, in their review of voluminous literature on how college affects students, that attending college is positively related to racial, ethnic, and multicultural attitudes and values. They noted that practices such as structural diversity, service learning courses, racial and cultural awareness workshops,

leadership training courses, study abroad programs, and other co-curricular activities have a positive effect on a student's cultural awareness, increased tolerance for differences, an increase in the acceptance of others from different cultural origins, and a greater openness to diversity.

Astin (1993a, 1993b) addressed the issue of diversity and multiculturalism in his research project on environmental effects on various student outcomes. The research findings indicated that when students are provided with not only curricular but also extracurricular opportunities to confront racial and multicultural issues, they self-reported greater gains in cognitive and affective development. These gains were found in the students' self-reported gains in cultural awareness and their commitment to promote racial/ethnic understanding. Astin (1993a, 1993b) identified several engagement activities in which students participated that positively related to their cultural awareness and commitment to promoting racial/ethnic understanding. While student's attendance at cultural awareness workshops designed to enhance racial/cultural understanding among students from different backgrounds and the number of ethnic or women's studies courses taken had positive effects on the students' self-reported gains, the research identified two other activities that had stronger gains. These results are consistent with other studies (Gurin, Nagda & Lopez, 2004; Hurtado; 2005; Laird, 2005). Student socialization with persons from different racial/ethnic groups and the frequency with which students discussed racial/ethnic issues during their undergraduate years had the strongest effect. This finding is consistent with other studies on peer relationships and student socialization and diversity (Antonio, 2004, 2001; Chang, Astin & Kim, 2004; Chang, Denson, Saenz, & Misa, 2006; Denson & Chang, 2009; Engberg & Hurtado,

2011; Gurin et al., 2002; Pike & Kuh, 2006; Pike, Kuh, & Gonyea, 2007; Zuniga, Williams & Berger, 2005). Additionally, when students frequently discussed racial/ethnic issues, they not only reported gains in cultural awareness and commitment to promoting racial/ethnic understanding but also reported a commitment to developing a meaningful philosophy of life. Other researchers have made similar findings (Astin et al., 2011; Pascarella, Edison, Nora, Hagedorn & Terenzini, 1996).

Institutional characteristics were also a research consideration in the enriching educational experience. Using the College Student Experience Questionnaire (CSEQ), Hu and Kuh (2003) found that students who attend research-extensive institutions and liberal arts colleges were more likely to interact with peers from diverse racial/ethnic backgrounds than students at other institutions. The researcher suggested that meaningful interaction rather than "idiosyncratic and intermittent contact" (p. 331) led to the developmental outcome. Using the NSSE dataset, Umbach and Kuh (2006) found that students who attended liberal arts colleges reported higher gains in understanding people from different racial/ethnic backgrounds than those students who attended other types of colleges and universities. This study corroborates the findings of Pike and Kuh (2006). The researchers suggest that liberal arts colleges provide enriching educational experiences that expose students to experiences with diversity in educationally purposeful ways.

Supportive campus environment. When a college or university is committed to the success of their students and cultivates positive working and social relations among different groups on campus, students perform better and are more satisfied with college. This benchmark measures the students' assessment of campus environments that provide

the support needed to succeed academically, enable students to cope with nonacademic issues, enable them to thrive socially and form quality relationships with other students, faculty members, and administrative personnel and offices (Kuh, 2009a, 2006).

Sense of spirituality. The spiritual questioning that undergraduate students experience while in college is driving the higher education community to rethink what they do and why they do it (Rogers & Love, 2007). According to Parks (2000), the college environment can serve as a mentoring community that offers students significant opportunities for fostering their faith or spiritual development. When administrators, faculty, and staff are committed to creating a culture that provides student support, socially, academically, and non-academically, the supportive campus environment can have a significant impact on student development (Chickering et al., 2006; Parks, 2000). According to Chickering et al. (2006), colleges and universities that model their mission and values through personal examples motivate students to question their authenticity and values.

Only a few studies in the past have examined the campus environment and its effects on spirituality. Kuh and Gonyea (2006) examined the nature of the campus environment and student engagement in effective educational practices as they relate to the development of a deepened sense of spirituality. They found that students who viewed the college climate as supportive of their social and non-academic needs engaged in deep learning activities more than students who did not. Deep learning activities included engaging in discussion of ideas from readings or classes with faculty members, students, family members, and co-workers outside of class, and including diverse perspectives as they relate to different races, religions, gender, and political beliefs in

class discussions or writing assignments. Additionally, these students also participated in activities to enhance their spirituality. Kuh and Gonyea's (2006) findings indicate that the more supportive students perceive the campus environment to be, the more they reported greater gains in a deepened sense of spirituality. Equally important, they also concluded that faith-based mission related colleges and universities appear to be major factors influencing student participation in religious and spiritually enhancing activities while attending college. The greater the perception of support, the more the students reported gains in spiritual development.

In their follow-up study, Gonyea and Kuh (2006) found that religious affiliates and "faith-based/fundamentalist" institutions with strong religious commitments reported having a stronger sense of community, or a "belonging" culture, which appeared to be a major factor influencing student participation in religious and spirituality-enhancing activities during college. Like their prior study, the more supportive the students perceived this type of campus environment to be, the more they engaged in religious or spiritual activities and the more they reported gaining in terms of a deepened sense of spirituality. Finally, as suggested by the researchers, these findings need to be interpreted with caution, though, since students choose institutions that suit their needs, religiously and culturally. Institutions that emphasize religion and participate in spirituality-enhancing practices usually attract students who are predisposed to engage in those practices (Gonyea & Kuh, 2006).

In a study by Astin, Astin & Lindholm (2011), there were similar findings related to institutional type. While focusing on changes in religious engagement, the researchers found that students enrolled in faith-based mission related institutions, especially

Evangelical colleges, were more engaged in religious activities than students attending other institutions. The researchers found that students attending these institutions were encouraged more by their environment, especially professors than students attending other four-year institutions. This encouragement to engage in experiences such as meditation, self-reflection, donating money to charity, reading sacred texts, reading other spiritual/religious materials, and engaging in discussions of religion with professors, students and staff positively affected both religious and spiritual growth in the students. The researcher suggested that faith-based mission related institutions tend to be smaller in size than the larger public and private colleges and universities where students have less personal contact with other students, faculty, administrators, and staff.

Using the NSSE dataset to explore student engagement, Kezar and Kinzie (2006) found that institutional mission affected the student's perception of the campus climate. Using the five benchmarks identified by NSSE, single-serving institutions and liberal arts campuses that focus on teaching, character development, and creating community were found to be perceived as having a high degree of faculty-student interaction for advising and mentoring and a basic philosophy of family.

Other studies related to spirituality and pedagogical practices of faculty. Lindholm and Astin (2008) found that faculty played a central role in shaping the culture and climate of their institutions. The researchers suggested that faculty were more likely to embrace a student-centered pedagogy when they felt that there was a positive institutional climate that represented their values and beliefs. A positive institutional climate encourages students to succeed academically, thriving socially and creating good relations between their peers, faculty, administration, and staff (Kuh et al., 2005). A

Student-centered pedagogy has been found to promote students' active engagement in their learning process, offering students cognitive, emotional, and spiritual connections (Kezar, 2007).

When colleges and universities are committed to cultivating positive work and social relations among different groups on campus, students perform better, are more likely to grow in character development, and are more satisfied at college (Kuh, 2003a). According to Parks (2000), "Organizations and institutions that can serve as images of a meaningful wholeness and interrelatedness are the soil in which the seeds of vocation may grow" (p. 153). These meaningful places can contribute to a student's character development, which includes the shaping of codes of values and ethics.

Personal code of values and ethics. In their research on moral and civic learning, Colby, Ehrich, Beaumont, and Stephens (2003) identified the creation of institutional structures and climates as integral to the supporting of student learning outcomes, including moral and civic development. Their findings, based on a case study of twelve college campuses, indicated that supportive campus environments shared similar characteristics. First, the students engaged in moral and civic education throughout the curriculum, not only in the general education courses, but also across their academic disciplines. Second, the campus environment provided opportunities both inside and outside of the curriculum for students to engage in "complex and messy real-life contexts," helping students to make sense of themselves as ethically responsible citizens. Third, supportive campus environments provided students with experiences in diversity by attracting both students and faculty of other racial, religious, or socioeconomic backgrounds. Finally, supportive campus environments provide students with tools to

accomplish the shared values of the campus culture. In addition to the engagement experiences mentioned in the other four NSSE benchmarks, Colby et al. (2006) identified positive supportive services such as freshmen orientation programs to acclimate students into college life and year-long freshmen seminars that enhance students overall academic success. The researchers found that incorporating volunteerism and community service activities that introduce students to the college's values into these programs had positive effects on the undergraduate experience, especially institutions that have strong commitments to moral and civic education. The researchers suggest that institutional programs that have a full commitment from administration, faculty, and staff can be memorable and powerful tools for shaping the way students make sense of their educational experience. Additionally, Colby et al. (2006) found that institutions that adopt honor codes and other codes of conduct and implement them effectively can positively affect the way students engage in behaviors such as peer pressure, mutual responsibility, and respect. Campus environments that involve all members of the community in every aspect of the college's code are critical for student development of moral and civic character (Colby et al., 2006).

In several studies conducted on supportive campus environments (Kuh, 2003a; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Kuh & Umbach, 2004) using various NSSE datasets, the findings suggest that supportive campus climates play a significant role in the character development of students. Making the greatest gains in the findings are liberal arts colleges, followed by their peers at the baccalaureate general colleges, masters' granting institutions, and the two largest institutions, the Doctoral/research University extensive and Doctoral/research University intensive. In addition to these

findings, students at religiously affiliated institutions that support specific missions and culture reported greater gains than students at unaffiliated institutions. Using development of a personal code of ethics and values as a variable, Kuh and Umbach (2004) found that students reported interpersonal support and support for learning as experiences that positively effected their growth in character development. Additionally, they found in their research that those institutions that tend to score highest on character development attract students that are fairly homogeneous in terms of their background characteristics. In addition, Kuh et al. (2008) found in their study that based on effective educational practices, students attending institutions that employ a comprehensive system of complementary initiatives are more likely to be more satisfied, perform better academically, and persist and graduate. In order for these complementary programs to be effective, they must be high quality, be customized to meet the needs of the students they intend to reach, and be firmly rooted in a student success oriented campus culture. Additionally, Pike and Kuh (2006) found that student perceptions of the campus environment are positively related to institutional mission. For the intended character development outcome, mission, curriculum, and student experiences and engagement in activities at the institution must be aligned properly.

Understanding people of different racial and ethnic backgrounds. As part of an initiative to provide diverse students opportunities for success, the American Association of Colleges and Universities (AACU) has introduced a concept of "inclusive excellence." This perspective provides for a diversity agenda to become part of the institution's goals in achieving academic excellence (Locks, et al., 2008; Pike, et al., 2007). In their study on diversity-related student engagement and institutional context, Denson and Chang

(2009) confirmed previous findings that the more students are engaged with racial diversity through related knowledge acquisition or cross-racial interaction, the more positive the effects will be on all students irrespective of the frequency of engagement with diversity. They also suggested that campuses with positive organizational behaviors or supportive campus environments toward diversity reported more positive student body engagement in diversity activities. Institutional practices that create positive environments in this study included hiring faculty of color to provide students with diverse role models, offering support and mentoring programs for minority students, and being supportive of and engaging in nontraditional scholarship.

In an effort to determine what organizational factors and conditions are related to diversity experiences at liberal arts colleges, Umbach and Kuh's (2006) study engaged in research using the NSSE survey instrument and Carnegie Classifications from the 2002 dataset. They suggest that for institutions to optimize their structural diversity, they need to make institutional commitments by providing supportive campus environments open to diversity and provide opportunities across diverse populations. Using HLM, their findings suggest that liberal arts colleges create more distinctive learning environments for students in terms of diversity experiences compared to any other institutional type. Students at liberal arts colleges had higher levels of student engagement in diversity-related activities than students at other types of schools. Additionally, they also self-reported higher gains in understanding people from different backgrounds and also perceived their campus environment strongly supportive of their academic and social needs as compared to other types of institutions. The researchers corroborated the

findings in prior research that showed a positive relationship between diversity and the various desired outcomes of college.

In his comprehensive study on the impact of college, Astin (1993b) identified various aspects of the college environment that were positively affected by institutional and individual experiences. The study included the following indicators of measure: Institutional Diversity Emphasis, Faculty Diversity Orientation, and various other student diversity activities. Emphasis on institutional diversity pertained to the promotion of multiculturalism on campus through affirmative action policies and practices. The orientation of faculty related to the course taught and their interest in research. Finally, various student diversity activities included courses that focused on women's issues, ethnic or Third World perspectives, the participation in racial or cultural workshops, racial or ethnic dialogue, and the interaction with people of different racial/ethnic backgrounds. Of particular interest in this research, Astin (1993b) found that positive relationships existed between an institution's diversity emphasis, faculty diversity orientation, and the student's direct experience with diversity. The researcher suggested that institutions that encourage and support multiculturalism and diversity saw the development of various student outcomes including the increased commitment to promoting racial understanding.

Control Variables in Research on the Relationship between Student Engagement and Student Development

Gender. Astin (1993b) suggests that student characteristics are associated not only with college involvement but also with college outcomes. Research has shown that gender can be a significant factor in the development of a deepened sense of spirituality,

the development of a personal code of values and ethics, and the development of an understanding of people of other racial and ethnic backgrounds.

In the most recent study using a national longitudinal dataset, Astin, Astin & Lindholm (2011) found gender differences as they relate to spiritual growth. Their findings reported that women were more likely than men to be high-scorers on spiritual growth, both as freshmen and three years later as juniors. These findings were supported by other empirical studies on spirituality (Bryant, 2007, 2011; Kuh & Gonyea, 2005; Mayhew, 2011).

The research on moral reasoning varies related to gender, and the findings show inconsistencies, as demonstrated through the research of Kohlberg (Munsey, 1980) and Gilligan (1982). Some researchers such as Bruess and Pearson (2002) found that women scored significantly higher in principled moral reasoning and achieved a higher score on the Defining Issues Test than their male counterparts. In this proposed conceptual framework, gender is included, as it has been suggested that examining moral development through different lenses will add to the literature and continue to challenge the traditional paradigms (Evans, Forney & Guido-DiBrito, 1998).

Additionally, Astin (1993b) found gender differences in his comprehensive study related to development of an understanding of people of different racial and ethnic backgrounds. His findings reported that women experienced more positive increases in cultural awareness, or racial/ethnic understanding than men. Additionally, women also reported becoming more politically liberal in their thinking while males became more conservative. These findings corroborated prior research, which showed that women had higher levels of openness to diversity/challenge than men (Mayhew, Seifert & Pascarella,

2010; Pascarella, Edison, Nora, Hagedorn & Terenzini, 1996; Whitt, Pascarella, Nesheim, Marth & Pierson, 2003). Another study confirmed these findings, but added that men were less likely than women to engage in interactions with students of different race, values and religious beliefs than women (Hu & Kuh, 2003)

Race/ethnicity. With the increase in the diversity of the college student, demographic differences need to be addressed. Research on the impact of college has shown that student outcomes can be affected by various characteristics. A student's race/ ethnicity has been identified as a contributing characteristic related to the outcome measures (Astin, 1993; Pascarella & Terenzini, 2005).

In a comprehensive longitudinal study using a national dataset, Mayhew (2011) suggests that the development of ecumenical worldviews, one of the five groups of spiritual measures used, identified race/ethnic differences. African Americans, Latinos/as, and Asian Americans all reported higher ecumenical or spiritual growth during their four years of college than their White counterparts. These finding are consistent with those of other researchers (Astin, Astin, & Lindholm, 2011; Kuh & Gonyea, 2005).

While not specifically researching race and ethnicity, Bryant (2007) suggested that in addition to gender differences in spirituality, African American women were positively associated with the integration of spirituality in their lives as compared to other college students. In another study, Bryant (2010) found that racial/ethnic minority students are more inclined toward ecumenicism, or spiritual growth than racial/ethnic majorities.

Research in moral reasoning has provided strong evidence that college engagement contributes to a student's growth in this outcome. However, in the empirical studies, findings about the relationship between race/ethnicity and moral development have been inconsistent. In a comprehensive study using various cognitively demanding instruments, including the Defining Issues Test, Mayhew, Seifert, and Pascarella (2010) found no significant relationship between race/ethnicity and the development of moral reasoning in college students. Of the student demographic characteristics studied, gender was the only statistically significant variable.

In a review of studies utilizing the Defining Issues Test, King and Mayhew (2002) identified only two studies whose primary purpose was to investigate moral development by race and ethnicity. Both studies had small sample sizes and reported inconsistent findings, making any generalizations inconclusive. The first study found no differences between different racial groups in their Defining Issues Test; the second found significantly lower scores by African American students taking the exam. Additional other studies identified in the review used race/ethnicity as supplementary variables; findings again were inconsistent, showing either no significant difference or differences related to Caucasian students scoring higher than other racial groups.

The research on the promotion of understanding people of different racial and ethnic backgrounds has been consistent, across racial/ethnic groups; having casual interactions or having friendship groups in college has significant positive effects on racial attitudes and values. These findings have been collaborated extensively in research (Chang, Astin, & Kim, 2004; Gurin, Dey, Hurtado, & Gurin, 2002; Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996; Pascarella, Palmer, Moye, & Pierson, 2001; Pike,

Kuh, & Gonyea, 2007; Saenz, Ngai, Hurtado, 2007). Nevertheless, some studies identified some engagement activities that negatively impacted openness to diversity/challenge. Pascarella et al. (1996) found that belonging to fraternities or sororities had a significant negative impact on White students versus non-White students. Conversely, non-White students benefited the most from engagement in fraternities and sororities, having higher levels of openness to diversity/challenge than their White counterparts (Pascarella et al., 1996; Saenz, Ngai, Hurtado, 2007).

Primary college major. The academic major stands out as another student input characteristic important in the development of various student outcomes (Astin, 1993b). According to Pascarella and Terenzini (2005) the undergraduate major field of study has a noticeable impact on not only career choice but also on various cognitive outcomes. The researchers note, though, that impact on cognitive development was selective.

In the most comprehensive study found, Astin, Astin & Lindholm (2011) identified that relationships exist between certain majors and the growth of spiritual questing. In their study, for example, they found that the students majoring in the person-oriented fields such as the social sciences and biological sciences felt more connected to the spiritual qualities of Ethics of Caring, Ecumenical Worldview, and Charitable Involvement measures, while students majoring in the engineering, business, and mathematics fields had a negative impact on the same measures. The measures used in the study were all aspects required for spiritual growth. Nevertheless, other researchers found that the student's major field is unrelated to the frequency of involvement in religious and spiritual activities during college (Kuh & Gonyea, 2005).

According to Pascarella and Terenzini (2005), there is a relatively small body of research related to the primary major of a college student and the development of moral reasoning. These studies have provided inconsistencies on the impact academic disciplines have on this outcome. In their review of literature on studies using the Defining Issues Test, King and Mayhew (2002) found similar results. The research results reviewed resulted inconclusively on the impact of moral judgment and primary college major.

While some studies identified business majors having lower scores than did psychology, math and social work majors, other studies found no significant difference between business and non-business majors such as arts and humanities, social sciences, natural sciences and undeclared (Snodgrass & Behling, 1996).

In Pascarella and Terenzini's (2005) review of literature, they conclude that academic major had little effect on college student's attitudes or values, including racial/ethnics attitudes. However, Astin (1993b), in his comprehensive study on college impact, found that commitments to the promotion of racial understanding were negatively affected by majoring in business, nursing, science, or engineering. These findings were corroborated with other studies (Flowers & Pascarella, 1999).

Institutional type. Institutional type and characteristics are important controls to help identify the effects of college impact on students (Astin, 1993b). According to Pascarella and Terenzini (2005), some studies indicate that students at private colleges and universities show a greater increase in altruistic values such as the development of spirituality and moral commitments to civic responsibility, while other studies find that institutional type has not been a factor in the change in students' racial/ethnic attitudes.

Recent researchers such as Kuh and Gonyea (2005), using the NSSE dataset, have found that faith-based institutions are more influential in student's active participation in religious and spirituality enhancing activities than other types of institutions. Additionally, the researchers found that students at mission driven faith-based institutions also reported a greater impact on the development of a deepened sense of spirituality then their peers at non-denominational institutions. In a more recent study the researchers found that private colleges, as identified using the Carnegie/control section of the dataset, generally scored higher on a deepened sense of spirituality and the development of values and ethics than other institutions (Gonyea and Kuh, 2006), while institutions with strong commitments to religion, classified as the faith-based/fundamentalist group, scored the highest on NSSE survey questions related to spirituality compared to non-affiliated private colleges and universities.

Although Gonyea and Kuh (2006) found that students attending "faith-based/fundamentalist" colleges and universities scored the highest on items related to spirituality, they also found that they had a more homogeneous experience while attending college. Their findings provided evidence that they have less frequent conversations with other students who have different beliefs, political opinions, or personal values than those students attending other institutions, including public, Roman Catholic, and other Protestant institutions.

Institutional type has been a common research variable used in higher education research. Included in this research are studies related to moral judgment (King & Mayhew, 2002). Based on a review of their literature, as well as that of Pascarella and Terenzini (2005), significant differences have been found across various institutional

types. The literature has documented that students attending church-affiliated liberal arts institutions scored higher on the Defining Issues Test, followed by public research universities, two-year colleges, private liberal arts colleges, and private and public comprehensive colleges (King & Mayhew, 2002; Pascarella & Terenzini, 2005). These findings are supported by the findings of other studies (Kuh & Gonyea, 2005). Additionally, other studies identified liberal arts colleges as fostering the development of moral reasoning compared to other types of institutions (King & Mayhew, 2005).

Institutional characteristics were another variable considered in diversity research. Earlier studies identified liberal arts colleges with distinctive missions as having the ability to expose their students to diversity when compared to other types of colleges and universities (Kuh, Schun, Whitt, & Associates, 1991). More recent studies have corroborated these findings. In their comprehensive study on liberal arts colleges using the NSSE dataset, Umbach and Kuh (2006) found that liberal arts colleges created more distinctive learning environments as related to the promotion of diversity than other types of institutions. Students reported a greater gain in understanding people from diverse backgrounds than in other types of institutions. These findings corroborated other studies that found that institutional diversity emphasis has a positive effect on promoting racial understanding (Astin, 1993; NSSE, 2007; Pascarella & Terenzini, 2005; Pike, Kuh & Gonyea, 2007).

Summary and Critique of Prior Literature

In order for a researcher to conduct a reliable examination on educational engagement and college student development at either the institutional or national level, access to the appropriate data is imperative. In the past, much of the data collected was

designed and used primarily for research purposes. As the focus changed to guiding improvements in teaching and learning, the research turned to providing institutions with valid, reliable information for accountability and improvement (Kuh, 2009a). This study will provide institutions interested in measuring character development with a tool that can be easily replicated each year utilizing the NSSE database.

Though the literature reviewed here indicates the positive effects of student engagement on the development of spirituality, a personal code of values and ethics, and understanding people of different racial/ethnic backgrounds, no studies in this review combined the variables using a large national dataset such as the National Survey of Student Engagement (NSSE). The review of the literature provided the theoretical framework for this study and discussed the importance of meaning-making and student engagement in the development of the desired outcomes.

In the prior literature reviewed, the samples used in the studies on educational engagement and college student development came from longitudinal data provided by large databases such as the Cooperative Institutional Research Program (CIRP), the limited use of the National Survey on Student Engagement (NSSE), and other instruments such as the Defining Issues Test (DIT), qualitative data collected through in-depth interviewing and participant observations, and data collected at the institutional level using in-house surveys and other research based tests. The literature validated the importance of educationally effective practices and the reliability of such tools. The present study addresses this void in the literature by examining the educationally effective practices at colleges and universities and establishing their relationship using the five NSSE benchmark principles.

Data used in Previous Research

While character development has been considered a historically important outcome at the national level for higher education, at the institutional level many colleges and universities, especially mission driven faith-based institutions, struggle with measuring and assessing it. While very few studies have addressed some of the variables associated with character at the national level, the majority of them have focused solely at the institutional level (Astin, Astin & Lindholm, 2011; Parks, 2000). The research at this level has been predominantly focused on either small sample qualitative studies or surveys designed specifically for the institution under study. As developing or finding instruments for measuring and assessing character across institutions and time can be an extremely difficult task, very few institutions find themselves in the position to do this well (Colby, Elrilich, Beamont, & Stephens, 2003). Using national databases such as NSSE provides users with a valid and reliable tool to identify effective practices at the institutional level and allows for benchmarking at the multi-institutional level over time, with diverse samples of students, institutions, and multiple measures.

Proposed Framework

There has been extensive research in the area of student development as it relates to character. This research has laid the foundation for explaining many of the characteristics of this increasingly important outcome. However, while researchers have added to the literature by providing different theoretical approaches to this college outcome, their studies have had some deficiencies.

Many of the studies that exist have solely utilized the student engagement theories in developing models to examine the characteristics associated with character while

excluding the cognitive processes at work in their models. In doing so, these models have focused exclusively on the influences of student interactions with others, pedagogical techniques, and their interactions with the campus environment. The result has been the identification of activities and conditions on college and university campuses linked to effective learning. They have not, however, adequately explained the cognitive factors responsible for the student's development of character.

Similarly, other studies have employed various student development models based in the cognitive-structural and psychosocial theories exclusively. While explaining the mental processes and focusing on the stage-related developments of the college student, they too have also been deficient in addressing the various factors as they relate to student engagement and the environment provided by colleges and universities.

The challenge for future research is to develop different theoretical models to explain student development of character and its relationship with student engagement. Several researchers (Evans, Forney & Guido-Dibrito, 1998; Kuh, 2001; Pascarella & Terenzini, 2005) have suggested that the use of theories in combination can assist practitioners in avoiding the misunderstanding of the college student change process and provide them with multiple strategies to consider for improvement.

This study will offer an alternative method for colleges and universities collecting NSSE data and interested in assessing and measuring the desired outcome of character. The proposed model for this study will utilize the existing theoretical approaches taken in past research on student engagement and combine them with student development theories grounded in the cognitive-structural perspectives related to meaning-making.

This proposed model includes three clusters of variables from the student engagement, cognitive-structural, and interactional perspectives. These include the outcome variables (developing a deepened sense of spirituality, developing a personal code of values and ethics, and developing an understanding of people of different racial and ethnic backgrounds), engagement variables (academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, supportive campus environment), and the control variables. The measures included in the model were chosen not only to complement but also to add to the literature on character. The following section will discuss each of these variables and their placement in the model proposed.

Variables

Outcome (Dependent) Variables

Character development in higher education has been identified in the mission statements of many colleges and universities as an important student outcome (Astin, Astin & Lindholm, 2011; Kaufman, 2008; Kuh & Gonyea, 2005). Because it is an ineffable outcome, and has many characteristics associated with it, institutions struggle to find appropriate methods to measure it. While many studies have utilized multiple dimensions when researching character, three such dimensions of this outcome are consistently referred to in the literature and used in the mission statements of faith-and mission-based institutions with value-laden terminology. These three are spirituality, morality, and diversity (Astin, Astin & Lindholm, 2011). Based on the literature review, I have included the three self-perceived student outcome measurements: developing a deepened sense of spirituality, developing a personal code of values and ethics, and

understanding people of other racial and ethnic backgrounds.

Engagement Variables

Identifying effective practices within these colleges and universities becomes crucial to the success of college students. The research presented has identified many practices associated with gains in learning, social, and personal development. The following engagement variables--level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environments--have been included in this model. The engagement variables represent student behaviors that have been identified as highly correlated with the desired outcomes of college and will be the focal predictors in my proposed model; level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environments (Kuh, 2003b; NSSE, 2007).

Control Variables

Background characteristics including gender, race/ethnicity, major areas of study and institution type have been found to affect the engagement of students in general and in particular the development of character. Including these control variables in this model will add to the prior research, which at times has been void of them. While they are not of primary interest, they are important because not all students change in the same way, and not all institutions act similarly. Adding them not only assists in the evaluation of the effectiveness of policies and programs at these institutions, but also may better explain the choices, preferences, and experiences of college students. These variables will precede all of the other predicting variables in this model.

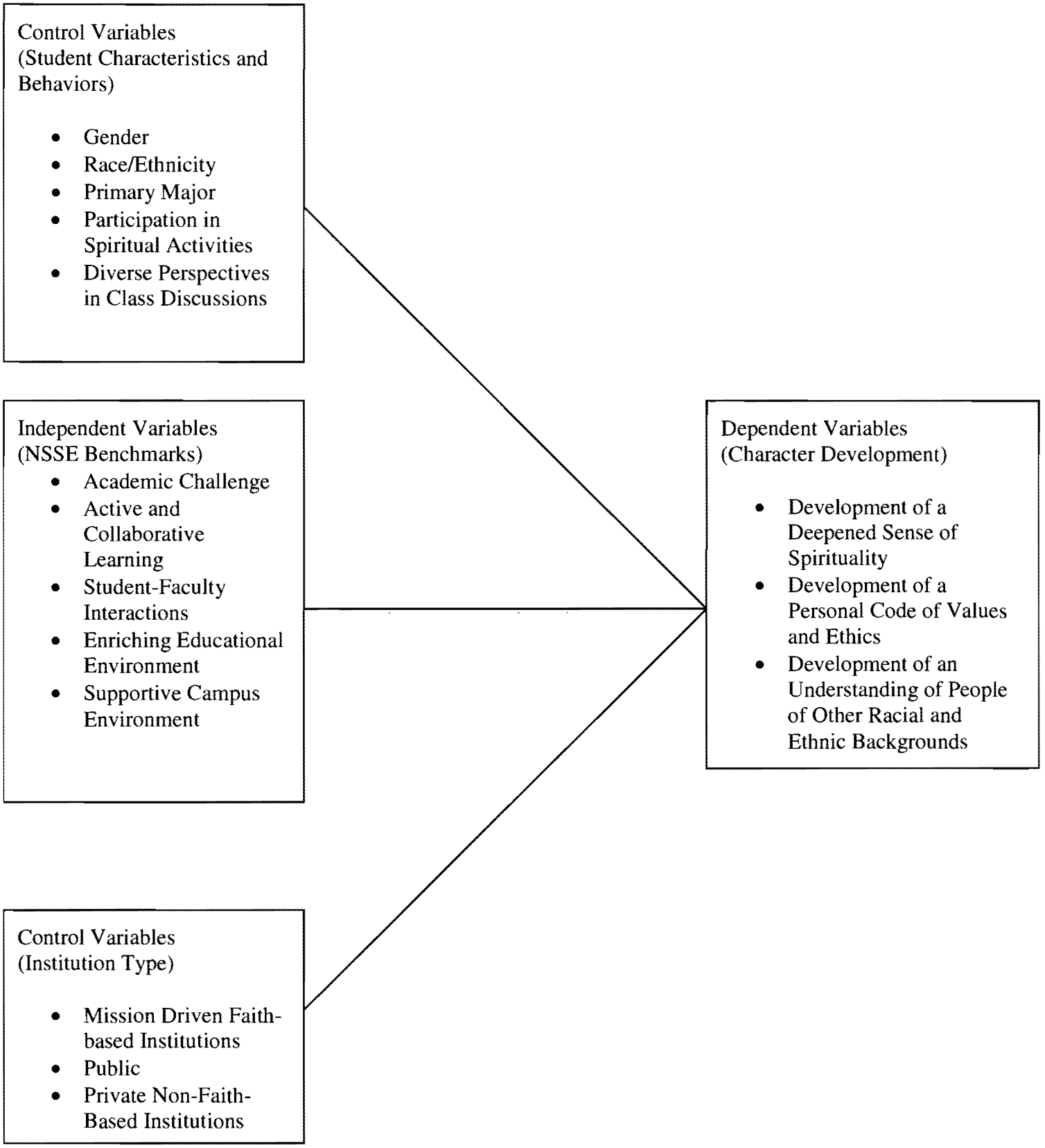

Figure 1. Proposed Research Model for the Development of Character

Conclusion

Based on the review of prior literature, I suggest that future researchers examining the relationship between student engagement and student development outcomes need to consider how the five engagement benchmarks (level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environment) can be used to predict students' development of a deepened sense of spirituality, development of a personal code of values and ethics, and an understanding of racial and ethnic backgrounds.

My review of the theories also indicates that an appropriate approach is to integrate the theories of engagement and the student development theories of diversity and faith development to further this field of research. Based on the findings of previous research, the gains in student outcomes related to character are presumed to be related to engagement in effective educational practices, meaning-making, and diversity in learning Quantitative studies using national databases such as NSSE can be used to provide a more detailed analysis of these variables related to character, as the NSSE is a good proxy measure for growth in important educational outcomes (Pascarella, Seifert & Blaich, 2010). This proposed model could be a useful tool for institutions not only to better assess their mission, but also for transparency and accountability.

CHAPTER THREE

RESEARCH DESIGN

The purpose of this study is to investigate the relationship between student engagement and student development outcomes, as measured by the development of a deepened sense of spirituality, a personal code of values and ethics, and an understanding of people of other racial and ethnic backgrounds. This study will be guided by the following research questions:

1. Does student engagement in educationally purposeful activities relate to student development of a deepened sense of spirituality controlling for the effects of student characteristics, behaviors, and institutional type?

2. Does student engagement in educationally purposeful activities relate to student development of a personal code of values and ethics controlling for the effects of student characteristics and institutional type?

3. Does student engagement in educationally purposeful activities relate to student development of an understanding of people of other racial and ethnic background controlling for the effects of student characteristics, behaviors, and institutional type?

4. How do the relationships between educationally purposeful activities and student character development differ across institutional type?

Research Model

In order to address the research questions presented, this study used a quantitative design to explore the relationship between student engagement in educationally purposeful activities, student development outcomes related to character, students' characteristics, behaviors, and institutional type.

The conceptual framework for this study, as illustrated in Figure 1, is based on the model proposed in Chapter Two. Employing the integration of the existing theoretical frameworks on student engagement, and the "meaning-making" and diversity theories of student development, this model will investigate how their interdependence relates to the desired outcomes.

This study draws on data from the National Survey of Student Engagement (NSSE) and the data will be analyzed utilizing descriptive and inferential statistics. Ordinal logistic regression will be used to explore the research questions to model the relationship between the ordinal outcome variables, and the explanatory variables concerning student engagement activities, characteristics, behaviors and institutional type.

Data Source

The participants in this study were respondents from the 2007 National Survey of Student Engagement (see Appendix A for paper version of survey). The survey administered to students is also referred to as *The College Student Report.* Since 2000, over 1,400 colleges and universities have utilized NSSE as an assessment tool to measure the quality of their undergraduate programs and educational activities (NSSE, 2010). An effective tool for continual improvement and assessment programs, NSSE is one of the most widely used sources of high quality, actionable data on the undergraduate experience (Chen, Sarraf, BrckaLorenz, Korkmaz, Lambert, Shoup & Williams, 2009; Kuh, 2009a; LaNasa, Cabrera & Transgrund, 2009). The survey captures the impact the institution has on its students and their educational activities, drawing upon Chickering and Gamson's (1987) seven principles of good practice in undergraduate education

(LaNasa, Cabrera & Transgrund, 2009; Pascarella, Cruce, Umbach, Wolniak, Kuh, Carini, Hayek, Gonyea & Zhao, 2006). There has been substantial research supporting NSSE as a valid predictor of learning, specifically in the growth of student competence, test scores, performance, and self-reported gains in learning.

NSSE Dataset Survey Administration

The NSSE was established with a grant from the Pew Charitable Trusts in 2000, after concerns were raised about the widespread use of college rankings that didn't address college quality (Kuh, 2001; Pike, 2001). NSSE is administered by the Indiana University Center for Postsecondary Research (IUCPR) in cooperation with the Indiana University Center for Survey Research. The survey collects data from participating colleges and universities throughout the United States, Puerto Rico, and Canada. Taken at the end of each academic year, freshmen and senior students answer survey questions about their participation in several educationally purposeful activities, perceptions of features of the college experience, institutional actions and requirements, student background information, and educational and personal growth since starting college in various areas (Kuh, 2009a). The information is collected and grouped into the five indicators, or benchmarks as discussed in more detail in the literature review section of this study. These benchmarks of effective educational practices represent the multi-dimensional nature of student engagement (Kuh, 2009a). Benchmarks were established to allow cross-sectional analysis by participating institutions.

The benchmarks are based on key questions combined from the NSSE survey (see individual questions and frequency percentages under each benchmark in Appendices C-G). Grounded in theory and empirical analysis, the questions capture the most important

aspects of the college experience, (Kuh, 2009; Gordon, Ludlum & Hoey, 2008; LaNasa, Cabrera & Trangsrud, 2009). Individual student benchmark scores are calculated based on a 0-100 point scale. A mean score for each student was calculated only if they answered three fifths of the items used to compute the individual benchmarks (NSSE, 2011). Surveys are available both in Web-based formats and paper questionnaires, the delivery mode is determined by the individual institutions. Responses made by the students either electronically or by paper are collected by the administrators at IUCPR.

Sample

The data used to address the research questions presented in this study come from the 2007 NSSE dataset. This data is the most recent to be released from the survey administrator, Indiana University Center for Postsecondary Research (IUCPR). In 2007, first-year and senior students from 610 institutions in the United States and Canada participated in the NSSE survey (NSSE, 2007). Of the more than one million students invited to participate in the survey, 323,147 responded to either the web or paper version. The average institutional response rate for 2007 NSSE survey was 36% (NSSE, 2007). The NSSE (2007) reported that the 2007 profile of institutions participating were similar to the national student and institutional characteristics.

Included among the participating institutions in the 2007 survey were 81 colleges and universities belonging to mission driven faith-based and liberal arts consortiums established by the NSSE administrators. These consortiums included Catholic Colleges and Universities, Council for Christian Colleges and Universities, Jesuit Colleges and Universities, and Private Liberal Arts Colleges and Universities (Appendix B provides a summary of the student sample by consortium).

Because the purpose of this study is to examine the relationship between student engagement experiences and the gains in measures of student development, this study focused only on students who have completed their fourth year of college. Using these students who had senior status provides this study with more meaningful responses because of the cross-sectional characteristics of the data. Only senior students would have accumulated more experiences over the course of an undergraduate's time in college.

This study utilized a representative sample of 2007 senior student participants (n = 24,914). The NSSE researchers constructed the sample for the research questions based on a request for (1) a 20% random sample of all first-year and senior students who attend a U.S. institution, (2) inclusion of all survey items and institutional characteristics, and (3) the variable identifying whether an institution belongs to one of the following Consortia: Catholic Colleges and Universities, Jesuit Colleges and Universities, Council for Christian Colleges & Universities, and Private Liberal Arts Colleges and Universities would be included in the dataset. Additionally, all student and institutional identifying information was to be removed. Because the sample population contained a relatively small amount of missing values (less than 20 items, which equates to approximately .1%), the listwise deletion approach was utilized to eliminate the missing cases.

Validity and Reliability

The NSSE is one of the most widely used surveys on the college student experience, developed by academic professionals and the leading researchers in the field of higher education. The NSSE claims to have high content validity and instrument reliability, continually adjusted based on data collection over the years (Kuh, 2009; Payne, Kleine, Purcell & Carter, 2005). Developed around the voluminous body of

research on self-reported information, the NSSE questions have been used in previous student surveys with substantial validity (Carini, Kuh, & Klein, 2006; Kuh, 2001). Carini, Kuh and Klein (2006) identify six conditions that must exist for student self reports on surveys to be valid and reliable:

1. The information requested is known to the respondents
2. The questions are phrased clearly and unambiguously
3. The questions refer to recent activities
4. The respondents think the questions merit a thoughtful response
5. The information requested is potentially verifiable
6. The question asks for information that is known to those answering the questions and does not threaten, embarrass, or violate their privacy or encourage the respondents to respond in socially desirable ways.

In addition, Pascarella, Seifert, and Blaich (2010) in the most recent study on the NSSE found that institutions utilizing their results should be reasonably confident that the benchmark scales are good proxy measures for growth in important educational outcomes.

In addition, Cronbach's alpha, a conventional measure of internal reliability consistency was run on the NSSE data set. Researchers often strive for a .70 or above as an acceptable level when applied to studies (Gordon, Ludlum and Hoey, 2008). The results from the 2007 survey found that three of the five NSSE benchmarks had a suggested high degree of reliability: Level of Academic Challenge, .759; Student-Faculty Interaction, .740; and a Supportive Campus Environment, .795 (NSSE, 2007). Those scores that fell below .70 were for Active and Collaborative Learning, .699; and

Enriching Educational Experiences, .646, implying in this case that these benchmarks should be used with caution when applying statistical analysis (NSSE, 2007).

Research Variables

The purpose of this study is to examine how the five National Survey of Student Engagement (NSSE) benchmarks predict the three self-reported or perceived outcomes related to student development of senior students at mission driven faith-based and liberal arts colleges and universities. The research variables for this study are divided into three groups: independent variables, dependent variables, and control variables.

Independent Variables (NSSE Benchmarks)

The NSSE benchmarks capture the most important aspects of the student experience within the institutions that they attend. The engagement benchmarks listed below are the independent variables in this study:

1. Level of academic challenge
2. Active and collaborative learning
3. Student and faculty interaction
4. Enriching educational experiences
5. Supportive campus environment

Each of the benchmarks, or independent variables, is composed of a series of questions directly related to the measure. The 42 questions representing each of the benchmarks, along with the frequency percentages for the sample, can be found in Appendix C. Because the benchmarks are continuous variables, they were standardized before any analysis was performed to simplify the interpretation of the results. Figures 2-6 show the distribution of each of the benchmarks for the research sample. Standardizing

these benchmarks provides a common metric for comparing the effects of each of the independent variables to the same dependent variable (Pampel, 2000).

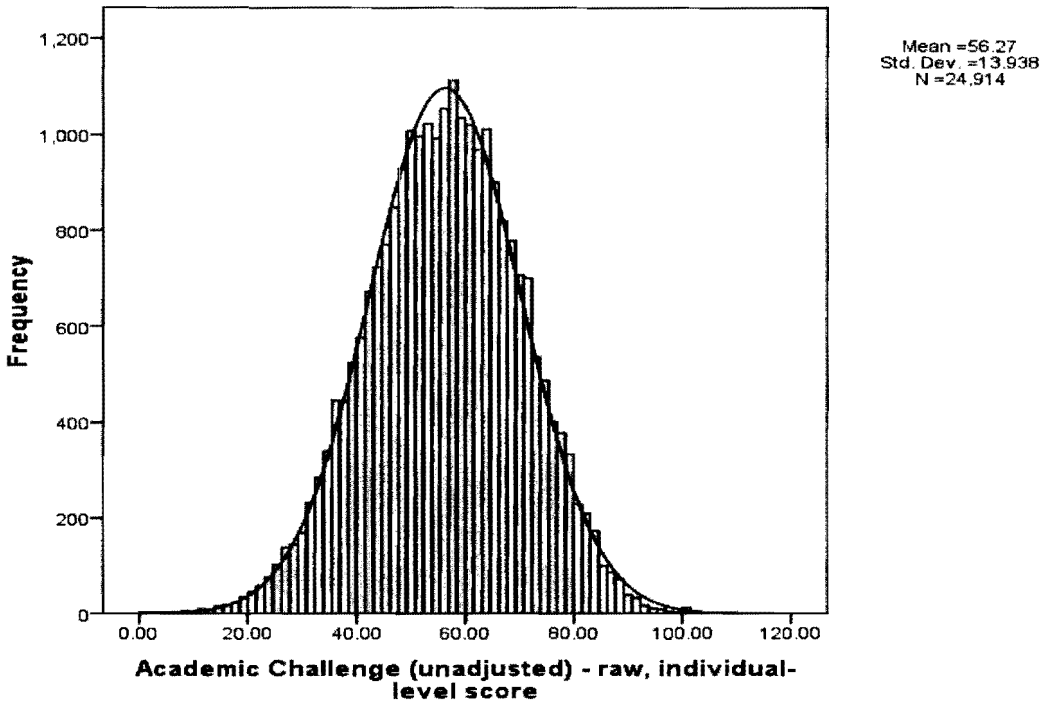

Figure 2. Academic Challenge Benchmark, Raw Individual-Level Scores

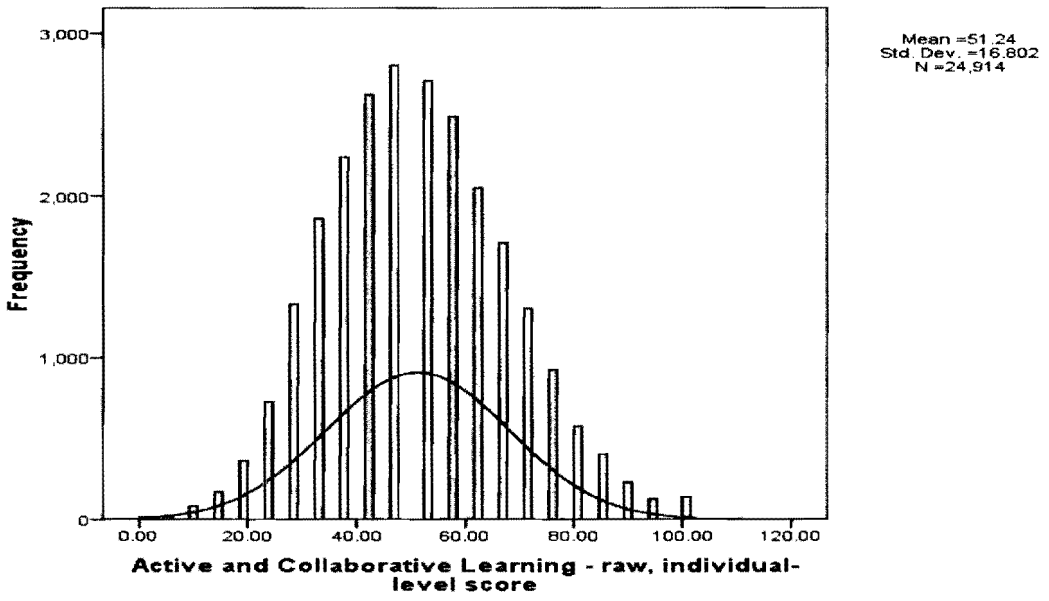

Figure 3. Active and Collaborative Learning Benchmark, Raw Individual-Level Scores

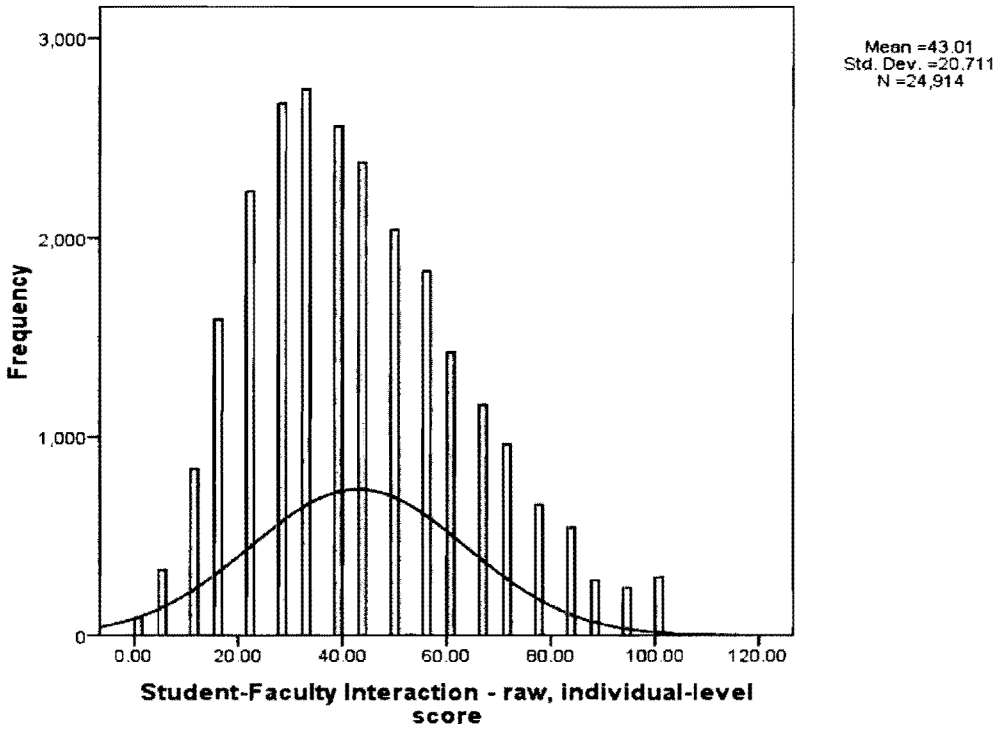

Figure 4. Student-Faculty Interaction Benchmark, Raw Individual-Level Scores

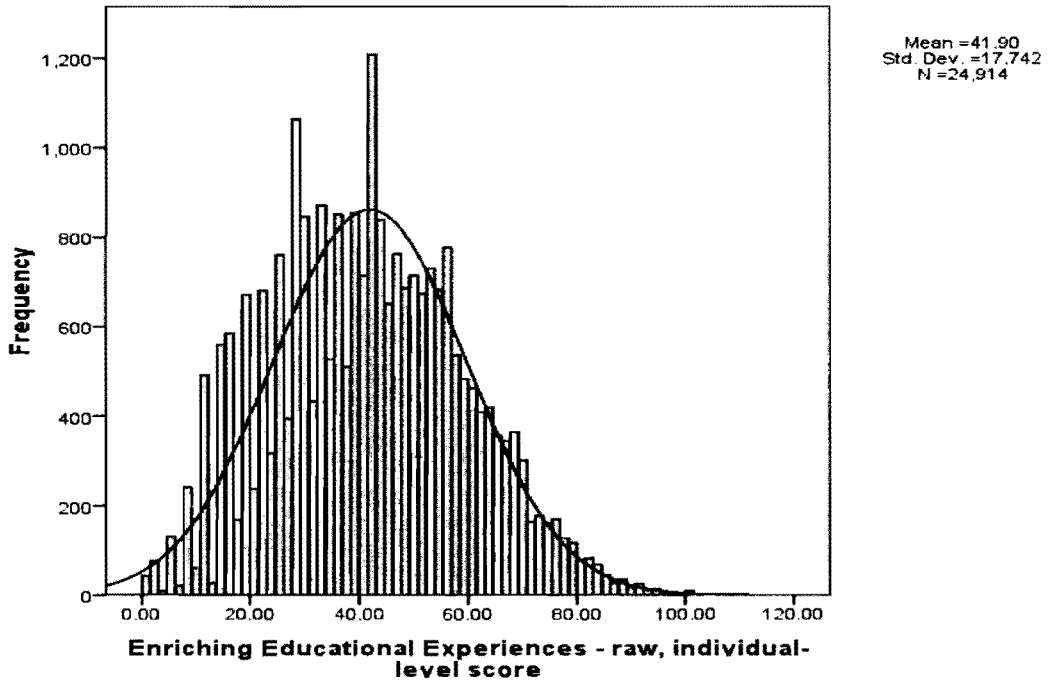

Figure 5. Enriching Educational Experience Benchmark, Raw Individual-Level Scores

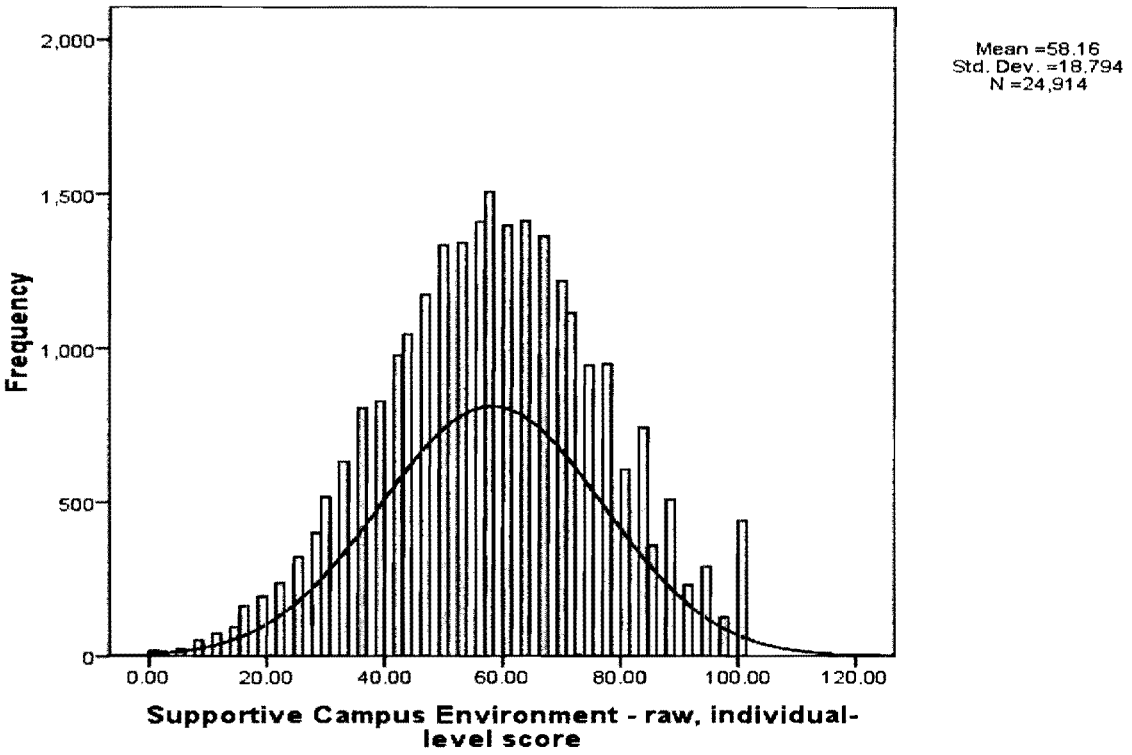

Figure 6. Supportive Campus Environment Benchmark, Raw Individual-Level Scores

Dependent Variables (NSSE Self-Reported/Perceived Outcomes)

The outcome variables for this study are ordinal variables selected from the section of the survey identifying the student's response that focuses on growth, gains and the student's educational experience. Students participating in the survey answered the following question:

To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas (see Appendix A):

1. Developing a deepened sense of spirituality
2. Developing a personal code of values and ethics
3. Understanding people of other racial and ethnic backgrounds

Students used the following Likert scale to respond to each question (detailed information about each variable can be found in Appendix C): very much, quite a bit, some, and very little. Kuh (2008) suggests that when doing sophisticated statistical analysis such as logistic regression, collapsing response categories for reporting and analysis is instructive. The common approach suggested in research is to combine "very much" and "quite a bit" to form a new category, "substantial," to easily convey information to campus leaders (Chen, Gonyea, Sarraf, BrckaLorenz, Korkmaz, Lambert, Shoup & Williams, 2009). For students who selected the response "very little," the outcome variable was coded as 0. For students who selected "some," the outcome variable was coded as 1. Students selecting "very much" and "quite a bit" to the institutions contribution to knowledge, skills, and personal growth were combined for each outcome variable and coded as 2, "substantial."

Control Variables

Specific student characteristics as noted by Pascarella (2006) must be accounted for because "the same intervention or experience might not have the same impact for all students, but rather might differ in the magnitude or even the direction of its impact for students with different characteristics or traits" (p. 512). Astin (1987) also echoed this idea in his theory of involvement. He identified the importance of the various inputs those students bring to college such as gender and race/ethnicity, and the environment to which they are exposed, such as the institutional policies, educational experiences, and programs. Gender, race/ethnicity, primary major, certain student behaviors, and institutional type differences have been well documented related to spirituality, ethics and values, and diversity (Astin, Astin, Lindholm & Bryant, 2005; Chickering, Dalton

&Stamm, 2006; Gonyea & Kuh, 2006; Gurin, Dey, Hurtado & Gurin, 2002; Kuh, Cruce, Shoup, Kinzie & Gonyea, 2005; Kuh & Gonyea, 2005; Mayhew, 2011; Parks, 2000; Pearson & Bruess, 2001). This study controlled for the following variables that could reasonably influence learning as well as student engagement: student gender, with male as reference group, race/ethnicity, with Caucasian/White as reference group, primary major, with Arts and Humanities as reference group, specific student behaviors, and institutional type recoded into either Mission Driven Faith-based institutions or public or other private (See Appendix H for coding scheme).

Data Analysis

This study used both descriptive statistics and ordinal logistic regression to analyze the data. The descriptive statistical method used to examine the frequencies of the sample was cross tabulation analysis. While descriptive statistics describes the characteristics of the dataset, inferential statistics enables the researcher to draw conclusions, inferences, or generalizations from the sample to a population of participants (Creswell, 2003).

The following steps were taken before the actual inferential analysis was preformed. The first step employed was the selection of data from the dataset. Using SPSS processes, the data were manipulated by selecting only student cases that reported the class rank of senior, eliminating all other choices. This step was essential to answer the research questions related to the development of student outcomes of interest. The second step involved the researcher's decision to delete all missing cases for each dependent, independent, and control variable in the study. This approach was chosen over other methods of treating missing values because of the large sample size (n=24,914)

provided by IUCPR and the relatively small amount of missing values as indicated earlier. Third, the researcher recoded all the variables so that the dataset was ready for descriptive and inferential analysis.

Descriptive Statistics

First, this research includes descriptive statistics to describe student demographic characteristics, specific behaviors related to outcomes, and institutional type. The descriptive analysis method of frequency distribution and crosstabulation was used.

Ordinal Logistic Regression

Second, three ordinal logistic regression models were used to examine how the independent and control variables were related to the promoting of student development as they relate to a deepened sense of spirituality, developing a personal code of values and ethics, and the understanding of people of other racial and ethnic backgrounds. As noted by Peng, So, Stage and St. John (2002), higher education is producing more complex datasets along with categorical outcome measures; logistic regression has become the optimal model for researchers over other methods to overcome the limitations in the handling of categorical dependent variables.

For this study, ordinal logistic regressions were appropriate due to the ordinal categorical nature of the dependent variables in the NSSE dataset. Ordinal logistic regression uses maximum likelihood estimation to predict the probability of a certain category of outcome in the dependent variable (O'Connell, 2006).

The ordinal logistic regression model noted in the following equation was used for each of the dependent variables representing student development of character:

$$\ln(P(SDC)/(1-P(SDC))) = \beta_0 + \beta_G * G + \beta_{R/E} * R/E + \beta_{P/M} * PM + \beta_{SB} * SB + \beta_{IT} * IT + \beta_{SEB} * SEB$$

Where the left side of the equation, or logit, represents the log of the odds that student development in the dependent variables of a deepened sense of spirituality, a personal code of values and ethics, and understanding people of different racial and ethnic backgrounds for each of the scale points (0 = very little, 1 = some, and 2 = substantial) has occurred, β_0 = represents the constant of the equation whose value yields P when X is zero, β_G = coefficient of the predictor variables gender, $\beta_{R/E}$ = coefficient of the predictor variables race/ethnicity, $\beta_{P/M}$ = coefficient of the predictor variables primary major, β_{SB} = coefficient of the predictor variables of the various student behaviors, β_{IT} = coefficient of the predictor variables of the institutional type, β_{SEB} = coefficient of the predictor variables of the student engagement benchmarks of level of academic challenge, active and collaborative learning, student-faculty engagement, enriching educational environment, and supportive campus environment.

Finally, sub-group analyses were conducted on the differential effects of student engagement on the development of a deepened sense of spirituality, a personal code of values and ethics, and understanding people of different racial and ethnic backgrounds by institutional type. Using the ordinal logistic regression model and the original sample (n=24, 914), three separate datasets were extracted, by institutional type. The dataset used in the sub-group analyses were mission driven faith-based institutions (n=2,723), public institutions (n=15,037), and private institutions (n=7,154).

Limitations

The first limitation of this research is the use of self-reported gains by students in the collection of data by NSSE. While the dependent variables used in this study were

affect outcomes related to values, attitudes, and self-concepts and scored based solely on self-reported gains, institutions should utilize these results with caution when creating or modifying policy (Gonyea & Miller, 2011; Pike, 1999). Self-reported gains are susceptible to bias, specifically in the form of socially desirable responding, the halo error, or effect and accuracy. Socially desirable responding bias occurs when students offer socially desirable responses. This bias has the potential to over-report the desirable attributes and behaviors or under-report the undesirable attributes and behaviors reported by students, because the halo effect can influence students' self-reporting when their judgments are influenced by their own general perceptions. Researchers have identified limited evidence that these biases are more prevalent in first-year students, while more advanced undergraduates such as senior-year students shows less of this bias (Bowman & Hill, 2011; Pike, 1999). The presumption being made in research is that seniors have had more opportunities to be evaluated or to evaluate themselves over time and are better trained, thus less likely to be subjected to the halo error. Finally, because of the broadness of the survey questions, accuracy in reporting is a concern. Porter (2011) recently found in his study on the validity of student surveys that students have difficulty encoding mundane events and behaviors, and accurately reporting them, especially self-reported learning gains.

The second limitation of this study is the design and dataset, which is based on a cross-sectional analysis of senior students from 2007. Such a design can have a number of limitations. While only one year of data was studied, gains in learning and development occur over time. The current study provides only a snapshot of senior students while not addressing any student predispositions. This approach is not only

problematic because the analysis may contain transfer students who did not experience sufficient time in the current environment, but may not accurately portray the cumulative effect of change. Additionally, researchers have noted that this approach can produce a "ceiling effect," where students may have scored relatively high in their first year and in their senior year provided inflated growth (Chen, Gonyea, Sarraf, BrckaLorenz, Korkmaz, Lambert, Shoup & Williams, 2009). A more comprehensive analysis such as a longitudinal study may produce different results relating to the student development of character and their engagement patterns.

The third limitation of this study relates to the types of institutions represented in the sample. While the NSSE sample used was of considerable size, it overrepresented institutions not identifying themselves with belonging to faith-based mission related or liberal arts consortiums. The overrepresented institutions participating in the survey were all dummy-coded into one category. Any generalizations to faith-based mission related and liberal arts institutions should be made cautiously as the mission of these institutions is unknown. Additionally, the study only provides a snapshot of institutions identified by consortium type. It fails to provide a comprehensive image of individual institutions.

Finally, the fourth limitation in this study is associated with the use of only three survey items to measure dependent variables identified in the NSSE survey to define character development along with the five benchmarks on student engagement. While nationally developed surveys are advantageous because they have been developed by experts in their field and have been tested extensively, they do pose additional limitations. National surveys may lack the specificity in details at the institution level that locally developed surveys can address. It is possible that other factors not included in the

framework provided in this study may account for character development. Additionally, the Likert-scale used in the NSSE survey can present a challenge when analyzing the findings due to the limited but broad range of measures from which students can choose. This presents statistical limitations when making inferences because of the single item responses of the dependent variables (Gonyea & Miller, 2011).

Despite these limitations, this study may be useful in understanding student engagement and development. These limitations provide an opportunity for future research in the field of higher education.

Summary

This chapter outlined the methodology used in this research. A description of the NSSE database along with the dependent, independent, and confounding variables were outlined. In addition, the analytical procedures used in analyzing the data and limitations of the study were described in detail. Chapter IV presents the results of the analysis. Chapter V presents an interpretation of the findings, implications of these findings as they relate to liberal arts and mission driven faith-based institutions, and suggestions for future research.

CHAPTER FOUR

RESULTS

As noted in Chapter III, the research questions for this study focus on the relationship between student engagement and student character development. The results presented in this chapter are divided into two sections. The first section presents the descriptive statistics of the sample for each of the variables used in this study. The second section presents the findings using ordinal logistic regression for each of the variables that are significantly related to the dependent variables.

Descriptive Statistics

Table 1 presents the student characteristics based on their own self-reporting of gender, race and ethnicity, and primary major along with student behavior questions from the survey. In addition, mission driven faith-based institutions identified through the NSSE consortia and public and private non-faith-based institutions were included. Table 1 showed that the majority of the sample was female, 65.5%, compared with 34.5% male. Caucasian students comprised the largest group in the sample, 73.8%; while African American students represented 5.7%; Hispanic students, 5.4%; Asian/Pacific Islander students, 4.5%; and other students, including multiracial, Native American, and those who reported undecided, 10.6%. The distribution of the students' primary major indicated that 18.7% of the respondents had either declared majors not falling into one of the NSSE subcategories or were undecided, followed by 17.2%, business majors; 15.5%, social science majors; 14.9%, arts and humanities majors; 10.5%, education majors; 8.2%, professional majors; 6.8%, biological sciences majors; 5.1%, engineering majors; and 3.1%, physical science majors.

Further descriptive analysis revealed in Table 1 that students responding to the following questions on the survey not included in the benchmark scores were as follows: participation in activities to enhance spirituality such as worship, meditation, and prayer, "never or sometimes," 65.3%; and "often to very often," 34.7%. Students responding to experiences that include diverse perspectives such as different races, religions, genders, political beliefs, etc., in classroom discussions or writing assignments, "never or sometimes," 37.5%; and "often to very often," 62.5%. Additionally, the analysis also revealed that colleges and universities not participating in the selected consortium represented 89.1% of the sample, while 10.9% were in the mission driven faith-based consortiums. Of those non-faith-based institutions, 28.7% were private/secular institutions, and 64.4% were public institutions.

Table 1

Descriptive Statistics of Independent and Confounding Variables (n=24,914)

Variables	Frequency (%)
Gender	
Female	65.5
Male	34.5
Race and Ethnicity	
African American	5.7
Asian/Pacific Islander	4.5
Caucasian (Reference Group)	73.8
Hispanic	5.4
Other Minorities	10.6
Primary Major	
Arts and Humanities (Reference Group)	14.9
Biological Sciences	6.8
Business	17.2
Education	10.5
Engineering	5.1

Physical Science	3.1
Professional	8.2
Social Sciences	15.5
Other (Includes those who reported undecided)	18.7
Student Behavior	
Participated in Activities to Enhance Spirituality	
Never to Sometimes	65.3
Often to Very Often	34.7
Included Diverse Perspectives in Class Discussions or Writing Assignments	
Never to Sometimes	37.5
Often to Very Often	62.5
Institutional Type	
Faith and Mission based institutions	10.9
Private institutions – Secular	28.7
Public	60.4

Additional descriptive statistics were computed using crosstab analysis to estimate how the distribution of the student development outcome changes across levels of the student engagement and predictor variables. Table 2 presents the results from crosstabulation analyses between the three categorical levels of student self-perceived growth in the development of a deepened sense of spirituality and the independent variables controlling for various student characteristics. Overall, the findings indicate that relationships tend to exist between the development of a deepened sense of spirituality, the student-level benchmark scores, and various student characteristics.

Table 2

Crosstabulation of Self-perceived Development of a Deepened Sense of Spirituality

Variables	% of Very Little	% of Some	% of Quite a Bit/ Very Much
Student Characteristics			
Gender			
Female	43.3	25.6	31.1
Male	48.5	23.7	27.8
Race/Ethnicity			
Caucasian	45.8	25.4	28.8
African American	35.7	23.4	40.9
Asian/Pacific Islander	35.1	28.4	36.5
Hispanic	40.6	24.8	34.7
Other Minorities	51.5	21.5	27.0
Major			
Arts & Humanities	45.0	23.2	31.3
Biological Sciences	45.7	26.3	28.0
Business	44.4	25.8	29.8
Education	40.9	26.1	33.0
Engineering	54.8	25.2	19.9
Physical Science	52.5	22.4	25.0
Professional	37.3	26.6	36.1
Social Sciences	46.2	24.6	29.2
Other Majors	46.0	24.4	29.5
Student Behavior			
Participated in Activities to Enhance Spirituality			
Never to Sometimes	53.5	26.7	19.7
Often to Very Often	29.1	21.6	49.2
Institutions Type			
Faith and Mission Based	17.4	26.8	55.7
Private	33.0	26.1	40.9
Public	53.0	24.2	22.8
Student-Level Benchmark Scores			
Academic Challenge			
0% – 33.33%	55.3	25.2	19.5

33.34% - 66.66%	42.9	26.3	30.8
66.67% -100.00%	37.0	23.5	39.5
Active and Collaborative Learning			
0% – 33.33%	54.4	25.3	20.2
33.34% - 66.66%	45.2	25.3	29.5
66.67% - 100.00%	34.9	24.1	41.0
Student-Faculty Interactions			
0% – 33.33%	58.4	23.7	17.9
33.34% - 66.66%	43.5	26.9	29.5
66.67% - 100.0%	35.0	24.3	40.7
Enriching Educational Environment			
0% – 33.33%	54.2	24.2	21.0
33.34% - 66.66%	46.0	25.7	28.3
66.67% - 100.0%	35.4	24.9	39.7
Supportive Campus Environment			
0% – 33.33%	66.2	20.5	13.3
33.34% - 66.66%	46.3	29.9	25.8
66.67% - 100.0%	25.1	26.2	48.7

Some patterns emerged from the examination of the independent variables, or NSSE benchmarks. Of those students who reported having rated their development of a deepened sense of spirituality as "quite a bit/very much," the highest measure of growth in the Likert scale, the majority of those students also scored in the highest category, 66.67% -100%, of the NSSE benchmark scores: academic challenge, active and collaborative learning, student-faculty interaction, enriching educational environment, and supportive campus environment, 39.5%, 41%, 40.7%, 39.7%, and 48.7%, respectively. In addition, students responded to questions on various other engagement activities not included in the questions used to compose the benchmarks important to this study. Of those students rating their growth in spirituality as "quite a bit/very much," a

strikingly high percentage of students also participated in activities during college to enhance their spirituality. Of those students who responded to the question, 49.2% rated their levels as "often to very often," the highest level in the Likert scale, while those who rated their level as "never to sometimes" represented 19.7%.

The analysis also indicated that relationships exist with the institutional type. Of those surveyed, 55.7% of the students who attended mission driven faith-based consortium colleges rated their development of a deepened sense of spirituality as "quite a bit/very much," whereas only 22.8% of those student attending public institutions and 40.9% in non-faith-based private institutions had the same rating.

Other variables such as gender, race/ethnicity, and primary major in college were also considered in the analysis. Overall, female students rated their growth in the "quite a bit/very much" category as higher than their male counterparts, 31.1% versus 27.8%, respectively. When compared to their Caucasian counterparts, African American, Asian/Pacific Islanders, and Hispanics reported having experienced higher levels of spiritual growth, 40.9%, 36.5%, and 34.7%, respectively, while only 28.8% of Caucasian students rated their growth as "quite a bit/very much." Finally, more students whose primary major was categorized as professional, 36.1%; education, 33.0%; and arts and humanities, 31.3%; rated their growth higher than any other major category, while biological sciences, business, social science, other majors and engineering major ratings had little salience.

Table 3 presents the results from crosstabulation analyses between the three categorical levels of student self-perceived growth in the development of a personal code

of values and ethics and the independent and predictor variables. Overall the findings indicate that relationships tend to exist.

Table 3

Crosstabulation of Self-perceived Development of a Personal Code of Values and Ethics

Variables	% of Very Little	% of Some	% of Quite a Bit/ Very Much
Student Characteristics			
Gender			
Female	13.3	26.6	60.1
Male	17.0	27.5	55.5
Race/Ethnicity			
Caucasian	14.3	26.4	58.3
African American	12.8	24.3	62.8
Asian/Pacific Islander	9.4	25.8	64.7
Hispanic	11.5	24.0	64.5
Other Minorities	21.2	26.9	52.0
Major			
Arts & Humanities	16.0	27.0	57.0
Biological Sciences	14.7	31.1	54.1
Business	12.9	24.9	62.2
Education	14.0	26.0	60.0
Engineering	16.9	31.2	51.9
Physical Science	22.2	28.4	49.4
Professional	11.3	24.5	64.2
Social Sciences	13.9	26.4	59.6
Other Majors	15.3	27.6	57.0
Institutions Type			
Faith and Mission Based	6.2	20.6	73.3
Private	9.8	24.2	66.1
Public	17.7	28.7	53.6

Student-Level Benchmark Scores			
Academic Challenge			
0 – 33.33%	22.5	35.2	43.3
33.34 - 66.66%	12.6	26.8	60.7
66.67 -100.00%	8.8	18.8	72.5
Active and Collaborative Learning			
0 – 33.33%	20.6	34.1	45.3
33.34 - 66.66%	13.4	27.5	59.1
66.67 - 100.00%	9.7	18.4	72.0
Student-Faculty Interactions			
0 – 33.33%	23.5	33.8	42.7
33.34 - 66.66%	12.3	27.7	60.0
66.67 - 100.0%	35.0	24.3	40.7
Enriching Educational Environment			
0 – 33.33%	20.8	32.5	46.7
33.34 - 66.66%	14.5	27.8	57.7
66.67 - 100.0%	8.8	20.6	70.6
Supportive Campus Environment			
0 – 33.33%	29.3	35.9	34.8
33.34 - 66.66%	12.0	30.8	57.2
66.67 - 100.0%	3.9	15.2	80.9

The second crosstab analysis performed also indicated a relationship with the independent variables, or NSSE benchmarks scores. Of those students who reported having rated their development of a personal code of values and ethics as "quite a bit/very much," the highest measure of growth, the majority of those students also scored in the higher category, 66.67% –100%, of the benchmarks: academic challenge, 72.5%; active and collaborative learning, 72%; student-faculty interaction, 40.7%; enriching educational environment, 70.6%; and supportive campus environment, 80.9%.

With regards to institutional type, of those surveyed, 73.3% of the students who attended mission driven faith-based consortium colleges rated their development of a

personal code of values and ethics as "quite a bit/very much," whereas only 53.6% of those student attending public institutions had the same rating. Similarly, students attending private colleges, representing both private/secular and mission driven faith-based consortium institutions were more likely to report scores of "quite a bit/very much," 66.1%, over their counterparts attending public institutions.

The other variables such as gender, race/ethnicity of the student, and primary major in college also revealed that relationships tend to exist. Overall, female students rated their growth in the "quite a bit/very much" category as higher than males, 60.1% versus 55.5%. When compared to their Caucasian counterparts, African Americans, Asian/Pacific Islanders, and Hispanics experienced higher levels of spiritual growth, 62.8%, 64.7%, and 64.5%, respectively, while only 58.3% of Caucasian students rated their growth as "quite a bit/very much" higher than other minorities, 52.0%. Finally, more students whose primary major was categorized as professional, 64.2%; business, 62.2%; education, 60.0%; and social sciences, 59.6%, rated their growth higher than any other major category while arts and humanities, other majors, biological sciences, and engineering majors ratings had lower percentages.

Finally, Table 4 presents the results from crosstabulation analyses between the three categorical levels of student self-perceived growth in the development of an understanding of people of other racial and ethnic backgrounds and the independent and predictor variables. Overall, the findings indicate that relationships tend to exist.

Table 4

Cross tabulation of Self-perceived Development of an Understanding of People of Other Racial and Ethnic Background

Variables	% of Very Little	% of Some	% of Quite a Bit/ Very Much
Student Characteristics			
Gender			
Female	13.2	32.7	54.1
Male	18.2	33.6	48.2
Race/Ethnicity			
Caucasian	14.8	34.9	50.2
African American	14.5	24.9	60.7
Asian/Pacific Islander	10.2	24.9	64.9
Hispanic	12.8	27.0	60.2
Other Minorities	19.1	30.5	50.4
Major			
Arts & Humanities	14.6	32.4	52.9
Biological Sciences	16.0	35.7	48.3
Business	15.8	33.7	50.5
Education	10.3	34.1	55.6
Engineering	24.3	40.2	35.5
Physical Science	20.1	39.8	40.1
Professional	12.8	31.3	55.9
Social Sciences	12.2	28.5	59.3
Other Majors	16.4	32.6	51.0
Student Behavior			
Included Diverse Perspectives in Class Discussion Or Writing Assignments			
Never to Sometimes	25.0	42.4	32.7
Often to Very Often	8.9	27.4	63.7
Institutions Type			
Faith and Mission Based	12.7	32.0	55.3
Private	14.6	32.7	52.7

Public	15.1	33.2	51.6
Student-Level Benchmark Scores			
Academic Challenge			
0 – 33.33%	21.9	40.0	38.0
33.34 - 66.66%	13.3	33.1	53.6
66.67 -100.00%	9.6	26.0	64.4
Active and Collaborative Learning			
0 – 33.33%	20.4	38.5	41.0
33.34 - 66.66%	14.3	34.0	51.7
66.67 - 100.00%	9.8	25.9	64.3
Student-Faculty Interactions			
0 – 33.33%	21.9	38.8	39.3
33.34 - 66.66%	13.5	34.6	51.9
66.67 - 100.0%	10.3	26.6	63.1
Enriching Educational Environment			
0 – 33.33%	21.8	38.5	39.8
33.34 - 66.66%	14.5	35.2	50.4
66.67 - 100.0%	8.9	25.7	65.5
Supportive Campus Environment			
0 – 33.33%	21.8	38.5	39.8
33.34 - 66.66%	14.5	35.2	50.4
66.67 - 100.0%	8.9	25.7	65.5

Of those students who reported having rated their development of an understanding of people of other racial and ethnic background as "quite a bit/very much," the highest measure of growth, the majority of those students also scored in the higher category, 66.67% –100%, of the benchmarks: academic challenge, active and collaborative learning, student-faculty interaction, enriching educational environment, and supportive campus environment, 64.4%, 64.3%, 63.1%, 65.5%, and 65.5%, respectively. In addition, students also responded to questions on various other engagement activities not included in the benchmarks. There were a relatively high

percentage of students who participated in activities including diverse perspectives in class discussion or writing assignments. Of those students who responded to the question, 63.7% rated their levels as "often to very often" over those who rated their level as "never to sometimes," 32.7%, in the "quite a bit/very much" category.

In examining the extent to which institutional types were related to student growth, the study found that 55.3% of the students who attended mission driven faith-based consortium colleges rated their development of an understanding of people of other racial and ethnic backgrounds as "quite a bit/very much," whereas 51.6% of those students attending public institutions had the same rating. Similarly, students attending private colleges, representing both private/secular and mission driven faith-based consortium institutions were more likely to report scores of "quite a bit/very much," 52.7%, over their counterparts attending public institutions.

The other variables such as gender, race/ethnicity of the student, and primary major in college also revealed that relationships tend to exist. Overall, female students rated their growth in the "quite a bit/very much" category as higher than males, 54.1% versus 48.2%. When compared to their Caucasian counterparts, African Americans, Asian/Pacific Islanders, and Hispanics experienced higher levels of spiritual growth, 60.7%, 64.9%, and 60.2%, respectively, while only 50.2% of Caucasian students rated their growth as "quite a bit/very much," slightly lower than other minority students, 50.4%. Finally, more students in the social sciences, 59.3%; professional, 55.9%; education, 55.6%; arts and humanities, 52.9%; other majors, 51.0%; and business, 50.5%; tended to rate higher growth than those in other academic majors, while biological sciences, physical sciences, and engineering majors ratings had lower percentages.

In sum, the crosstabulation analysis revealed that the direction of the associations found were as predicted in the literature on the three dependent variables; therefore, the following ordinal logistic regression analysis takes all of the independent variables into consideration to estimate the effects.

Ordinal Logistic Regression

In order to determine the relationship between students' engagement benchmarks and the perceived student outcomes of the development of a deepened sense of spirituality, development of a personal code of values and ethics, and the development of an understanding of people of other racial and ethnic backgrounds after controlling for the independent (engagement benchmarks) and control variables, ordinal logistic regression analysis was conducted separately for each research question. Tables 5, 6 and 7 present the findings of the estimated odds ratio [EXP (logit coefficient)], standard error, and significance for each variable used in the analysis. Odds ratios larger than one indicate a positive relationship, while odds ratios smaller than one indicates a negative relationship (O' Connell, 2006).

Research Question 1

Does student engagement in educationally purposeful activities relate to student development in a deepened sense of spirituality controlling for the effects of student characteristics, behaviors, and institutional type?

The results of the first ordinal logistic regression analysis showed that a significant relationship exists between the students' engagement benchmarks and their self-reported outcome, development of a deepened sense of spirituality. Table 5 presents

the estimated odds ratio, standard error, and the significance for each variable used in the ordinal regression analysis.

Table 5

Summary of Ordinal Regression Analysis Predicting the Development of a Deepened Sense of Spirituality

Variables	Odds Ratio	Sig.	SE
Student Characteristics			
Gender			
Male	.98		.028
Race/Ethnicity			
African American	1.45	***	.056
Asian/Pacific Islander	1.94	***	.062
Hispanic	1.40	***	.057
Other Minorities	.97		.043
Major			
Biological Sciences	.93		.060
Business	1.04		.046
Education	1.07		.053
Engineering	.79	**	.069
Physical Science	.72	***	.082
Professional	1.29	***	.056
Social Sciences	.99		.047
Other Majors	.96		.045
Student Behavior			
Participated in Activities to Enhance Spirituality	2.96	***	.027
Institutions Type			
Faith and Mission Based	2.48	***	.047
Public	.62	***	.029
Student-Level Benchmark Scores			
Academic Challenge	1.07	***	.015
Active and Collaborative Learning	1.05	**	.018

Student-Faculty Interactions	1.08	***	.017
Enriching Educational Environment	1.04	**	.015
Supportive Campus Environment	1.02	***	.028

Note: Significance: $p<0.001$ ***; $p<0.01$ **; $p<0.05$*

Overall, the NSSE engagement benchmarks were statistically significant ($p<0.01$). The students' individual benchmarks were converted into z-scores in order to compare the strength of the relationship between the continuous independent variables and the ordinal dependent variable. An increase in one unit of the z-score, equal to 1 standard deviation, was associated with an increase in the odds of a student self-reporting growth in the development of a deepened sense of spirituality. The increase in odds for each benchmark is as follows: academic challenge, 7%; active and collaborative learning, 5%; student-faculty interaction, 8%; enriching educational environment, 4%; and supportive campus environment, 2%.

In addition, other significant findings included the type of institutions students attended. Compared with students in public and non-faith-based private institutions, the odds of having a higher level of spiritual development in mission driven faith-based institutions were 1.48 times greater, while for students attending public institutions, the odds of having higher levels of spiritual growth decreased by 38%. Additionally, participating in activities to enhance spirituality such as worship, meditation, or prayer, tended to increase the odds of having a higher level of spiritual development by1.96 times.

Table 5 also includes student characteristics, such as gender, race/ethnicity and primary major. No significant differences were identified between males and females, while race/ethnicity was significantly related to the development of spiritual growth.

African Americans, Asian/Pacific Islanders, and Hispanics ranked 45%, 94%, and 40%, respectively, higher in the odds of having a deepened sense of spirituality than Caucasian students. No significant differences were found for other minorities, including multiracial and Native American.

With regard to primary major in college, the only significant categories were engineering, physical science, and professional majors. Professional majors, such as nursing, medicine and dentistry, as combined by NSSE, had a positive odds ratio, indicating a 29% increase in the odds of having a higher level of spiritual development compared to arts and humanities majors. Engineering and physical science majors showed a decrease in odds ratios of 79% and 72%, respectively, compared to arts and humanities majors.

Research Question 2

Does student engagement in educationally purposeful activities relate to student development of a personal code of values and ethics, controlling for the effects of student characteristics, behaviors and institutional type?

The results of the second ordinal logistic regression analysis showed a significant relationship exists between the students' engagement benchmarks, and their self-reported outcome, development of a personal code of values and ethics. Table 6 presents the estimated odds ratio, standard error, and the significance for each variable used in the ordinal regression analysis.

Table 6

Summary of Ordinal Regression Analysis Predicting the Development of a Personal Code of Values and Ethics

Variables	Odds Ratio	Sig.	SE
Student Characteristics			
Gender			
Male	.93	**	.030
Race/Ethnicity			
African American	1.14	*	.060
Asian/Pacific Islander	1.51	***	.069
Hispanic	1.42	***	.063
Other Minorities	.83	***	.043
Major			
Biological Sciences	.91		.062
Business	1.30	***	.049
Education	1.00		.056
Engineering	.96		.069
Physical Science	.64	***	.081
Professional	1.27	***	.060
Social Sciences	1.13	**	.049
Other Majors	1.08		.047
Institutions Type			
Faith and Mission Based	1.52	***	.053
Public	.82	***	.031
Student-Level Benchmark Scores			
Academic Challenge	1.35	***	.016
Active and Collaborative Learning	1.06	**	.019
Student-Faculty Interactions	1.04	*	.018
Enriching Educational Environment	1.10	***	.016
Supportive Campus Environment	2.39	***	.017

Note: Significance: $p<0.001$ ***; $p<0.01$ **; $p<0.05$*

Overall, the NSSE engagement benchmarks (independent variables) were all statistically significant ($p<0.05$). The students' individual benchmarks were again converted into z-scores in order to directly compare the strength of the relationship between the continuous independent variables and the ordinal dependent variable. An increase in one unit of the z-score, equal to 1 standard deviation, for Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Environment, and Supportive Campus Environment was associated with a 35%, 6%, 4%, 10% and 139% increase, respectively, in the odds of the development of a personal code of values and ethics.

In addition, other significant findings included the type of institutions students attended. Compared with students in public and non-faith-based institutions, the odds of having a higher level of the development of values and ethics increased by 52% in mission driven faith-based institutions, while for students attending public institutions, the odds of having higher levels of spiritual growth decreased by 18%.

Table 6 also included student characteristics, such as gender, race/ethnicity and primary major. In this analysis, gender was statistically significant ($p<0.01$). The odds of male students' development of a personal code of values and ethics were 7% lower than those for their female counterparts, while all race/ethnicity groups were statistically significant ($p<0.05$). African Americans, Asian/Pacific Islanders, and Hispanics were more likely to develop a personal code of values and ethics by 14%, 51%, and 42% than Caucasian students. Other minorities, including multiracial and Native Americans, were less likely than their Caucasian counterparts to develop a personal code of values and ethics, decreasing by 17%.

With regard to primary major in college, the only significant categories were business, physical science, professional, and social science majors, while business, professional, and social sciences majors had positive odds ratios, indicating a 30%, 27%, and 13% increase, respectively, in the odds of developing a personal code of values and ethics, compared to arts and humanities majors. Physical science majors showed a decrease in odds ratios of 64% compared to arts and humanities majors.

Research Question 3

Does student engagement in educationally purposeful activities relate to student development in an understanding of people of other racial and ethnic backgrounds, controlling for the effects of student characteristics, behaviors, and institutional type?

The results of the final ordinal logistic regression analysis showed a significant relationship exists between all of the students' engagement benchmarks and their self-reported outcomes, with the exception of active and collaborative learning in the development of an understanding of people of other racial and ethnic backgrounds. Table 7 presents the estimated odds ratio, standard error, and the significance for each variable used in the ordinal regression analysis.

Table 7

Summary of Ordinal Regression Analysis Predicting the Development of an Understanding of People of Other Racial and Ethnic Backgrounds

Variables	Odds Ratio	Sig.	SE
Student Characteristics			
Gender			
Female	.95		.029
Race/Ethnicity			
African American	1.33	***	.059
Asian/Pacific Islander	2.06	***	.069
Hispanic	1.47	***	.061
Other Minorities	1.00		.043
Major			
Biological Sciences	.96		.060
Business	.99		.047
Education	1.01		.054
Engineering	.64	***	.067
Physical Science	.74	***	.079
Professional	1.09		.058
Social Sciences	1.22	***	.048
Other Majors	.96		.046
Student Behavior			
Included Diverse Perspectives in Class Discussions or Writing Assignments	2.55	***	.029
Institutions Type			
Faith and Mission Based	1.03		.047
Public	1.38	***	.030
Student-Level Benchmark Scores			
Academic Challenge	1.17	***	.016
Active and Collaborative Learning	.97		.018
Student-Faculty Interactions	.91	***	.018
Enriching Educational Environment	1.28	***	.016
Supportive Campus Environment	2.21	***	.016

Note: Significance: $p<0.001$ ***; $p<0.01$ **; $p<0.05$*

Overall, the NSSE engagement benchmarks were statistically significant ($p<0.000$) with the exception of active and collaborative learning. The students' individual benchmarks were converted into z-scores in order to directly compare the strength of the relationship between the continuous independent variables and the ordinal dependent variable. An increase in one unit of the z score, equal to 1 standard deviation, for Academic Challenge, Enriching Educational Environment, and Supportive Campus Environment was associated with a 17%, 28%, and 121% increase, respectively, in the odds of the development of an understanding of people of other racial and ethnic backgrounds, while student-faculty interaction reported a reduction in the odds ratio of 9%.

In addition, other significant findings included the type of institutions students attended. Compared with students in non-faith-based private institutions, the odds of having a higher level of the development of understanding people of other race and ethnic backgrounds increased by 38% in public institutions. There was no significant difference for students attending faith-based mission related private institutions.

For students who responded to the survey question related to "participated in class discussions or writing assignments on diverse perspectives such as different races, religions, genders, political beliefs, etc.," the odds of having a higher level of development in the understanding of people of other race and ethnic backgrounds increased by 1.55 times.

Table 7 includes student characteristics such as gender, race/ethnicity and primary major. No significant differences were identified between males and females, while race/ethnicity was significantly related to the development of growth in understanding

people of different racial and ethnic backgrounds. African Americans, Asian/Pacific Islanders, and Hispanics were 33%, 106%, and 47% higher, respectively, in the odds of developing an understanding of people of other racial and ethnic backgrounds than Caucasian students. No significant differences were found for other minorities including multiracial and Native American.

With regard to primary major in college, the only significant categories were engineering, physical science, and social science majors; social science majors had a positive odds ratio, indicating a 22% increase in the odds of having a higher level of development of an understanding of people of other race or ethnic backgrounds compared to arts and humanities majors. The odds for having higher levels of development in this area for engineering and physical science majors showed a decrease by 36% and 26%, respectively, compared to those for arts and humanities majors.

Research Question 4

How do the relationships between educationally purposeful activities and student character development differ across institutional type?

Table 8 presents the results of the differential effects of student engagement on the development of a deepened sense of spirituality by institutional type. Mission driven faith-based institutions were associated with higher increases than those of the public and private non-faith-based institutions for academic challenge, 24%; enriching educational environment, 17%; and a supportive campus environment, 122%; in the odds of developing a deepened sense of spirituality. There were no significant findings for active and collaborative learning and student-faculty interactions. Public institutions were associated with a higher increase in the development of a deepened sense of spirituality

for student-faculty interactions, 12%, while they had the lowest odds for academic challenge, 5%, and active and collaborative learning, 4%. There were no significant findings for enriching educational environment. Private non-faith-based institutions had a higher level of growth in spirituality for active and collaborative learning, 10%, and the smallest increase for a supportive campus environment, 103%, with no significant findings for the other educationally purposeful activities.

The results of the differential effects of student engagement on the development of a personal code of values and ethics by institutional type are presented in Table 10. Consistent with the findings for the development of a deepened sense of spirituality, mission driven faith-based institutions had higher odds over public and private non-faith-based institutions for academic challenge, 39%; enriching educational environment, 19%; and a supportive campus environment, 166%; for the development of a personal code of values and ethnics. There were no significant findings for active and collaborative learning and student-faculty interactions. While public institutions had positive odds ratios for all of the educationally purposeful activities with the exception of student-faculty interaction, both mission driven faith-based institutions and private non-faith-based institutions had higher odds ratios in each of the benchmarks. Private non-faith-based institutions had higher levels of growth for active and collaborative learning, 10%, and student-faculty interactions, 9%, as compared to mission driven faith-based and public institutions, while they also had positive odds ratios for academic challenge, enriching educational environment, and a supportive campus environment.

Finally, Table 10 presents the results of the differential effects of student engagement on the development of an understanding of people of different racial and

ethnic backgrounds by institutional type. Public institutions were associated with higher increases in academic challenge, 18%; enriching educational environments, 33%; and a supportive campus environment, 126%. While mission driven faith-based institutions had positive odds ratios for academic challenge, 16%; enriching educational environment, 23%; and a supportive campus environment, 119%, they were the lower than private institutions. Of the five educationally purposeful activities, both public and mission driven faith-based institutions had decreases in the development of an understanding of people of different racial and ethnic backgrounds for student-faculty interaction, 11% versus 12%, respectively. Additionally, public institutions had decreases in self-perceived scores related active and collaborative learning, 5%, while mission driven faith-based and private institutions had no significance.

Table 8

Differential Effects of Student Engagement on the Development of a Deepened Sense of Spirituality by Institutional Type

	Faith-Based (n = 2,723)			Public (n = 15,037)			Private (n = 7,154)		
Educationally Purposeful Activities	Odds Ratio	Sig.	S.E.	Odds Ratio	Sig.	S.E.	Odds Ratio	Sig.	S.E.
Academic Challenge	1.24	***	.049	1.05	*	.020	1.06		.029
Active and Collaborative Learning	.96		.058	1.04	*	.022	1.10	**	.033
Student-Faculty Interaction	1.01		.055	1.12	***	.022	1.03		.031
Enriching Educational Environment	1.17	**	.047	1.03		.020	1.02		.028
Supportive Campus Environment	2.22	***	.050	2.13	***	.020	2.03	***	.029

Note: Significance: $p<0.001$ ***; $p<0.01$ **; $p<0.05$*

Table 9

Differential Effects of Student Engagement on the Development of a Personal Code of Values and Ethics by Institutional Type

	Faith-Based (n = 2,723)			Public (n = 15,037)			Private (n = 7,154)		
Educationally Purposeful Activities	Odds Ratio	Sig.	S.E.	Odds Ratio	Sig.	S.E.	Odds Ratio	Sig.	S.E.
Academic Challenge	1.39	***	.056	1.36	***	.020	1.32	***	.031
Active and Collaborative Learning	1.06		.067	1.05	*	.023	1.10	*	.036
Student-Faculty Interaction	1.05		.065	1.03		.023	1.09	*	.035
Enriching Educational Environment	1.19	**	.054	1.09	***	.020	1.10	**	.030
Supportive Campus Environment	2.66	***	.058	2.36	***	.021	2.38	***	.031

Note: Significance: $p<0.001$ ***; $p<0.01$ **; $p<0.05$*

Table 10

Differential Effects of Student Engagement on the Development of an Understanding of People of Different Racial and Ethnic Backgrounds by Institutional Type

	Faith-Based (n = 2,723)			Public (n = 15,037)			Private (n = 7,154)		
Educationally Purposeful Activities	Odds Ratio	Sig.	S.E.	Odds Ratio	Sig.	S.E.	Odds Ratio	Sig.	S.E.
Academic Challenge	1.16	**	.049	1.18	***	.020	1.17	***	.030
Active and Collaborative Learning	1.03		.057	.95	*	.023	.99		.034
Student-Faculty Interaction	.88	*	.054	.89	***	.023	.94		.032
Enriching Educational Environment	1.23	**	.046	1.33	***	.021	1.22	***	.028
Supportive Campus Environment	2.19	***	.049	2.26	***	.021	2.22	***	.029

Note: Significance: $p<0.001$ ***; $p<0.01$ **; $p<0.05$*

Summary

The purpose of this study is to determine whether a relationship exists between the specific student engagement benchmarks and student outcomes in the development of a deepened sense of spirituality, a personal code of values and ethics, and an understanding of people of other racial and ethnic backgrounds. This chapter presented the results of the statistical analysis used to test the research questions. The results of the statistical analysis suggest that the engagement benchmarks are significant predictors in measuring the growth in the character outcomes. Additionally, many of the other factors used in the proposed model were also found to be significantly related to character development. The final chapter discusses these findings and suggests implications, practices, and directions for future research.

CHAPTER FIVE

CONCLUSION AND IMPLICATIONS

In the past decade, there have been a number of studies on character development. Though the literature indicated the positive effects of student engagement on the development of the various aspects of character, no studies were found combining the variables using the National Survey on Student Engagement dataset. This study attempted to add to the literature by examining the NSSE as a viable tool for institutions to engage in developing indirect assessments that can be used as part of their accreditation, planning, and accountability reporting of value-laden student outcomes. While the NSSE was designed to provide data on student behaviors related to their success, mission driven faith-based institutions have the ability to measure their student's personal growth utilizing specific questions that focus on the important qualities of character.

The main goal of this study is to explore the relationship between student engagement in educationally purposeful activities and the three self-reported outcomes related to character development. In doing so, this study assists in informing whether the goals of using this tool will benefit the administrators, faculty, and student affairs professionals in assessing mission-related outcomes. More importantly, the stakeholders can use these measures to inform and improve policy, programs, and practices.

The conceptual framework for this study was developed from the theories of student engagement (Astin, 1984, 1999; Chickering & Gamson, 1987; Pace, 1982, 1984) that conceptualize how certain practices affect the outcome of student development. Combining with the theories of student engagement, I propose the inclusion of the developmental theories of Parks (1986, 2000) and Gurin, Dey, Hurtado and Gurin (2002)

as they relate to "meaning-making" and "mentoring communities," allowing for the exploration of the effects on the students' outcomes of growth in spirituality, values and ethnics, and diversity. Given the nature of the outcomes, the interrelationship of engagement activities and "meaning-making" and "mentoring-communities" were examined.

The main data source for this study was the 2007 National Survey on Student Engagement (NSSE), the most current dataset available. The dataset was obtained from the Center for Postsecondary Research at Indiana University at Bloomington. The survey was designed to collect from students, at all types of institutions, information related to their participation in several educationally purposeful activities, perceptions of the features of the students collective experience, institutional actions and requirements, student background information, and educational and personal growth data since starting college in various areas (Kuh, 2009a). The final sample used in this study was 24, 914 undergraduate senior students from both public and private four-year institutions.

Based on the proposed conceptual framework for this study, the data were first analyzed using cross-tabulations to identify patterns and trends between the dependent, independent, and control variables. The second step was to conduct ordinal logistic regression to determine the odds that students would perceive their growth in the three characteristics identified as important for the development of character; spirituality, values and ethics, and diversity. The final step was to optimize the effects of the student characteristics, behaviors, and institution type on the students' perceived growth in character development.

This chapter presents the final discussion of the findings of the study, along with implications for practice and policy, and suggestions for future directions of research on this topic. The chapter concludes with final remarks related to the study.

Summary of Findings

Sense of Spirituality

The descriptive analysis provided information about the patterns in educationally purposeful activities, student NSSE benchmark scores for academic challenge, active and collaborative learning, student-faculty interaction, enriching educational environment, supportive campus environment and their self-perceived growth in the development of a deepened sense of spirituality. In general, students were more likely to perceive their spiritual growth as "quite a bit/very much," the highest level, when their benchmark scores for each of the educationally purposeful activities was in the top third percent, 66.67% - 100%. Students attending mission driven faith-based institutions were found to have higher levels of growth in spirituality than those attending public and private institutions. In addition, students attending private institutions, including consortium institutions and religious institutions not affiliated with a consortium, also reported substantially higher levels of growth in spirituality than those attending public colleges and universities.

The descriptive results also indicated that the distribution by gender was less clear. While a higher percentage of female students rated their growth as "quite a bit/very much" over male students, the difference was minimal, 3.3%. The findings also suggest that minority students, including African Americans, Asian/Pacific Islanders, and Hispanics were found to be more likely to perceive their growth in spirituality at a higher

level than their Caucasian counterparts and students classified as other minorities. Additionally, other student characteristics, such as the student's primary major indicate a connection to spiritual growth, with the students majoring in the professions, education, and arts and humanities perceiving their growth as higher than those majoring in sciences and business. The findings also indicate that students who participated in activities to enhance their spirituality "often to very often" tend to have substantially higher scores than students who participated "never to sometimes."

Examining results from the ordinal logistic regression analysis revealed that students' self-perceived growth in spirituality was influenced by several factors including race/ethnicity, primary major, participation in activities to enhance spirituality, institution type and educationally effective practices as measured by the benchmark scores. For all five measures of educationally effective practices--academic challenge, active and collaborative learning, student-faculty interactions, enriching educational environments, and supportive campus environment--ordinal logistic regression results showed that students who achieved higher scores on these measures perceived their spiritual growth to be significantly greater than other students. These findings were consistent with the previous research that students who actively engage in educationally effective practices that promote spirituality are more likely to experience higher growth in these areas than students who do not (Astin, Astin & Lindholm, 2011; Astin, Astin Lindholm, & Bryant 2005; Bryant, Choi & Yasuno, 2003; Chickering, Dalton, & Stamm, 2005; Gonyea & Kuh, 2006; Kuh & Gonyea, 2005; Parks, 2000). These finding suggest that administrators and academic and student affairs professionals concerned with student spiritual development must continually benchmark student performance to better

understand and to improve educationally effective practices of undergraduates to achieve the desired learning outcomes.

The analysis also revealed that students at mission driven faith-based institutions achieved higher scores in spiritual growth than students attending public colleges and universities. This finding was supported by the exploration of the differential effect by institutional type, which identified the educationally purposeful activities of academic challenge, enriching educational environment, and supportive campus environment as important to the students' growth in spirituality. These findings are also consistent with the previous literature indicating that students of religiously affiliated institutions tend to achieve higher scores overall in spiritual growth than students attending secular institutions (Gonyea and Kuh, 2006; Kuh & Gonyea, 2005). This measure provides mission driven faith-based institutions with the evidence for assessment and accountability purposes.

Although the descriptive analysis found that women were slightly higher than men in their perceived growth in spirituality, the ordinal logistic regression findings revealed that the gender of the student was not significant, which is different from other research findings (Astin, Astin & Lindholm, 2011; Bryant, 2007, 2011; Kuh & Gonyea, 2005; Mayhew, 2011).

Racial and ethnic background also was a factor related to spiritual growth. African Americans, Asian/Pacific Islanders, and Hispanic students achieved higher growth in spirituality than Caucasian and other minority counterparts. These findings are consistent with previous research that revealed that these groups all reported higher spiritual growth during their four years of college than their White counterparts (Astin,

Astin & Lindholm, 2011; Kuh and Gonyea, 2005; Mayhew, 2011) suggesting that for students of other racial/ethnic backgrounds, spirituality may be a "buffer" for the negative effects of racist experiences (Bryant, 2010).

Students' primary majors also are related to spiritual growth. Students with majors in the professional field, physical sciences and engineering all had significant findings. While students in the professional field, which includes urban planning, health technology, medicine, dentistry, veterinarian, nursing, and allied health/other medical, achieved higher scores, significantly lower scores were found in the physical sciences and engineering majors. These findings are consistent with previous research, highlighting that students majoring in the person-oriented fields felt more connected to their spirituality than those majoring in engineering and mathematical fields (Astin, Astin & Lindholm, 2011). The analysis showed that for all other majors, no significance was found.

These findings suggest that administrators and academic and student affairs professionals should be aware that collegiate experiences vary by the students' background characteristics. This information about specific engagement patterns could guide improvements in programming and student learning outcomes through the creation of a variety of engagement opportunities, given the diversity of the student body.

With regard to student participation in activities that enhance spirituality, the research revealed a significant impact on spiritual growth. Students who participated in these activities perceived their growth to be three times higher than that of students who did not. These findings are supported by the previous research (Kuh & Gonyea, 2005), indicating that frequently engaging in spirituality-enhancing activities inside and outside

the classroom is strongly linked to the development of a deepened sense of spirituality. As this finding suggests, student participation in spiritually enhancing activities have powerful effects on their growth; institutions interested in the promotion of spirituality should encourage such activities.

Personal Code of Values and Ethics

As with the other previously discussed perceived outcomes, the descriptive analysis provided information about the patterns in educationally purposeful activities, or student NSSE benchmark scores for academic challenge, active and collaborative learning, and student-faculty interaction, enriching educational environment, and supportive campus environment and their self-perceived growth in the development of a personal code of values and ethics. For the student-engagement measures, students were more likely to perceive their development of a personal code of values and ethics as "quite a bit/very much," the highest level, when their benchmark scores for each educationally purposeful activities were in the top third percent, 66.67% -100%. Students attending mission driven faith-based institutions were found to have higher levels of growth in developing a personal code of values and ethics than students attending public and private institutions, while private institutions, which include consortium institutions and religious institutions not affiliated with a consortium, were also substantially higher than public colleges and universities.

The descriptive results indicated that female students tend to achieve higher scores than male students. Further, minority students, including African Americans, Asian/Pacific Islanders, and Hispanics were found to be more likely to perceive their development of s personal code of values and ethics at a higher level than their Caucasian

counterparts and students classified as other minorities. Other student characteristics, such as primary major, also indicates a connection to values and ethics, with the professional, education, and business majors perceiving their growth as higher than students in the sciences and engineering.

The results also indicated that the student's self-perceived development of a personal code of values and ethics was influenced by the student's background characteristics, institutional type, and educationally purposeful activities, using ordinal logistic regression. The results again showed that the students who attended mission driven faith-based institutions achieved higher self-perceived scores than other students in the five measures of educationally effective practices. The results were consistent with the prior research that students who engage in educationally effective practices that promote the development of a personal code of values and ethics, or moral reasoning, are more likely to experience higher growth than students who do not (Colby, Ehrich, Beaumont & Stephens, 2003; Kuh & Umbach, 2004; Mayhew & Engberg, 2010; Mayhew & King, 2008; Pascarella & Terenzini, 2005; Pearson & Bruess, 2001). These findings can also be used to inform administrators and academic and student affairs professionals interested in assessing and improving the learning environment for the desired learning outcome of values and ethics by enacting educationally effective practices.

With regard to the self-perceived scores of students attending mission driven faith-based institutions, the results of the study indicate that their scores in the development of a personal code of values and ethics are significantly higher than students who attend public colleges and universities. This finding was also supported by the

exploration of the differential effect by institutional type. The educationally purposeful activities of academic challenge, enriching educational environment, and supportive campus environment were identified as important to the student's growth in developing values and ethics. These findings are also consistent with the previous literature indicating that students attending religiously affiliated institutions tend to achieve higher scores overall in the growth of values and ethics than students attending secular institutions (Gonyea and Kuh, 2006; King & Mayhew, 2002; Pascarella & Terenzini, 2005). This measure provides mission driven faith-based institutions with not only the evidence for assessment and accountability purposes when measuring the development of values and ethics but also the magnitude of the institution's commitment to the outcome.

The ordinal logistic regression findings for this study also revealed that the gender of the student was significant. Overall, male students were found to have lower scores on the development of values and ethics than female students. While the literature on gender has been inconsistent, some researchers (Bruess & Pearson, 2002) have found that female students score significantly higher in principled moral reasoning, using other survey tools such as the Defining Issues Test. After controlling for all other factors, African American, Asian/Pacific Islander, and Hispanic students achieved higher growth in the development of a personal code of values and ethnics over Caucasian and other minority counterparts. The research findings related to the relationship between race/ethnicity and moral development have been inconsistent. Previous research revealed that there is no significant relationship among the different groups (King and Mayhew, 2002; Mayhew, Seifert, & Pascarella, 2010). Several reasons may explain why the findings of this study, which indicate that race/ethnicity is related to the development of values and ethics, are

different from those of Mayhew, Seifert, and Pascarella (2010) and King and Mayhew (2002). One important difference pertains to the survey instruments used in the studies. Prior research has predominantly been based on the Defining Issues Test. While the purpose of the Defining Issues Test is to measure moral development, the NSSE was developed to measure various educationally effective practices. Because the questions are more specifically related to moral development using the Defining Issues Test and the NSSE has only one question related to values and ethics, results should be interpreted with caution.

Past research provides some indication that a student's primary major is related to the development of a personal code of values and ethics. Students with majors in the professional field, business, and social science all had positive significant findings as compared to the arts and humanities majors, while physical science majors were found to have a decrease in the development of a personal code of values and ethnics. These findings are consistent with some of the previous research that indicates that students majoring in the person-oriented fields felt more connected to the development of moral principles than those majoring in business (King & Mayhew, 2002). For all other majors, the analysis showed no significance. Pascarella and Terenzini's (2005) synthesis of the past literature uncovered a relatively small body of research related to college major and the development of moral reasoning. The majority of the studies reviewed came from single-college samples. Their findings were "inconsistent and provided little basis for an unambiguous conclusion" (p. 359). Similarly, in their review of the literature, King and Mayhew (2002) found few studies using the Defining Issues Test (DIT), which uses different domains as a framework than the NSSE. Their findings corroborated those of

Pascarella and Terenzini's (2005), yielding inconclusive results to make generalizations. Perhaps the student's primary major, such as professional studies, business, and social sciences at mission driven faith-based institutions, is placing values and ethics into their curricular and co-curricular programming, contributing to higher outcomes than other majors. As in spirituality and developing a personal code of values and ethics, administrators, academic and student affairs professionals should consider the student's background characteristics to maximize programs and practices that aim to achieve these outcomes.

Understanding People of Other Racial and Ethnic Backgrounds

Finally, as with the other previously discussed perceived outcomes, the descriptive analysis provided information about the patterns in educationally purposeful activities, or student NSSE benchmark scores for academic challenge, active and collaborative learning, and student-faculty interaction, enriching educational environment, and supportive campus environment and their self-perceived growth in the development of an understanding of people of other racial and ethnic backgrounds. For the student engagement measures, students were more likely to perceive their development in an understanding of people of other racial and ethnic backgrounds as "quite a bit/very much," the highest level, when their benchmark scores for each educationally purposeful activities were in the top third percent, 66.67% -100%. In addition, students attending mission driven faith-based institutions reported slightly higher levels of growth in understanding people of other racial and ethnic backgrounds than public and private institutions, while private institutions, which include consortium

institutions and religious institutions not affiliated with a consortium, were also slightly higher than public colleges and universities.

The descriptive results indicated that female students tend to achieve higher scores than male students, while, minority students, including African Americans, Asian/Pacific Islanders, and Hispanics were found to be more likely to perceive their development of an understanding of people of different racial and ethnic backgrounds at a higher level than their Caucasian counterparts and other minorities. Other student characteristics, such as primary major, also indicate a connection to racial and ethnic understanding, with the social science, professional, and education majors perceiving their growth as higher than students in other majors. Moreover, students who actively participate in activities that include diverse perspectives in class discussions and writing assignments to enhance their understanding of people of other racial and ethnic backgrounds "often to very often" tend to have substantially higher scores than students who participated "never to sometimes."

In addition to spirituality and values and ethics, ordinal logistic regression analysis also revealed that the student's self-perceived development of an understanding of people of different racial and ethnic backgrounds were influenced by the student's race/ethnicity, participation in diverse perspectives in class discussions or writing assignments, institution type, and educationally effective practices as measured by the benchmark scores. For the measures of educationally effective practices, ordinal logistic regression results showed that students achieved higher scores in their perceived development of an understanding of people of different racial and ethnic backgrounds in three of the five NSSE benchmark scores. Academic challenge, enriching educational

environment, and supportive campus environment were significantly higher than students-faculty interactions. There were no significant differences in the scores for active and collaborative learning. The findings were consistent with the research for academic challenge, enriching educational environment, and supportive campus environment. However, the results of this study differed slightly from some of the previous research that showed that student-faculty interactions are educationally effective practices that facilitate diversity (Astin, 1993b; Chang, Astin, & Kim, 2004; Cole, 2007; Denson, 2009; Gurin, Dey, Hurtado & Gurin, 2002; Pascarella & Terenzini, 2005; Umbach & Kuh, 2006). Several reasons may explain the findings in this study, which indicate that mission driven faith-based institutions have slightly lower scores in student-faculty interactions. The student-faculty compositional structure of the institution was not taken into consideration in this model, compared to other private and public institutions; the majority of students and faculty are predominantly Caucasian at mission driven faith-based institutions (Astin, 1993b; Denson & Chang, 2009). This suggests that there are fewer opportunities for students to interact with diverse populations. These findings suggest that administrators, academic and student affairs professionals interested in assessing and improving the learning environment for the desired learning outcome of understanding people of other racial and ethnic backgrounds should continually evaluate educationally effective practices.

With regard to the type of institution, the analysis also revealed that students at public institutions achieved higher scores in understanding people of different racial and ethnic backgrounds than students attending mission driven faith-based and private institutions.

The differential effects by institutional type supported this finding, identifying the educationally purposeful activities of academic challenge, enriching educational environment, and supportive campus environment as important to the student's growth in spirituality. Additionally, the differential effects identified active and collaborative learning and student-faculty interaction as decreasing the student's development in understanding people of different racial and ethnic backgrounds. These findings are also consistent with the previous literature indicating that institutions that optimize their structural diversity or proportional mix of students of different racial and ethnic backgrounds promote more interactions with peers (Astin, 1993b; Pascarella & Terenzini, 2005). While there were no significant findings for the mission driven faith-based institutions with the third research question, the differential effect analysis revealed that academic challenge, enriching educational environment, and a supportive campus environment had positive effects on student growth. Additionally, the educationally purposeful activity, student–faculty interaction decreased the student's growth in understanding people of different racial and ethnic backgrounds. This measure can provide not only public, private, and mission driven faith-based institutions with the evidence for assessment and accountability purposes but also the magnitude of the institutions commitment to the development of and understanding of people of different racial and ethnic backgrounds.

The ordinal logistic regression findings for this study also revealed that the gender of the student was not significant. These findings are inconsistent with the literature that shows that female students had higher levels of openness to diversity and that male students were less likely to engage in interactions with students of different racial and

ethnic backgrounds (Astin, 1993b; Hu & Kuh, 2003; Mayhew, Seifert, & Pascarella, 2010; Pascarella, Edison, Nora, Hagedorn & Terenzini, 1996). While the descriptive statistics showed differences in gender, the findings from the ordinal logistic regression analysis suggest that the gender of students in this study might be disproportional. After controlling for other factors, African American, Asian/Pacific Islander, and Hispanic students achieved higher growth in the development of an understanding of people of other racial and ethnic backgrounds than their Caucasian and other minoritiy counterparts. These findings are counterintuitive to the previous literature on the promotion of understanding people of different racial and ethnic backgrounds. While some researchers have suggested that certain activities such as membership in a fraternity or sorority had significant negative impact on White students versus non-White students, prior research has found no significance to race/ethnicity and that across all racial/ethnic groups, having casual interactions or having friendship groups in college has significant positive effects on the development of an understanding of people of different racial and ethnic backgrounds (Chang, Astin & Kim, 2004; Gurin, Dey, Hurtado, & Gurin, 2002; Pascarella, Edison, Nora, Hagedorn & Terenzini, 1996; Pascarella, Palmer, Moye, & Pierson, 2001; Pike, Kuh, & Gonyea, 2007, Saenz, Ngai, & Hurtado, 2007). Findings from this study also indicate that the student's primary major varied in the relationship to the development of an understanding of people of different racial and ethnic backgrounds. While most college majors were found to have no significant difference in their scores, students in the social sciences had considerably higher ratings of perceived growth than those who majored in engineering and physical science. These findings are consistent with the research on the college student's racial ethnic values; while some

studies identified majors such as business, nursing, science, or engineering as having negative effects, others found little or no effect on the college student's attitude (Astin, 1993b; Pascarella & Terenzini, 2005; Snodgrass & Behling, 1996).

Theoretical Implications

The research model used in this study was derived from the student engagement theories and cognitive factors responsible for the student's development of character. According to the student development theorists (Gurin, Dey, Hurtado & Gurin, 2002; Parks, 1986, 2000) on the various outcomes related to character development, the college experience serves as a "mentoring community" that provides the needed recognition, support, challenge, and inspiration to create a generation of students who are more spiritually, morally, and globally aware. Combined with the student engagement theories (Astin, 1984, 1999; Chickering & Gamson, 1987; Pace, 1982, 1984; Kuh, 2009a), representing the time, quality, and effort that students put into their studies and other activities, institutions can assess the outcome of developing a deepened sense of spirituality, a personal code of values and ethics, and an understanding of people of different racial and ethnic backgrounds effectively using the NSSE survey.

The present study provides evidence demonstrating that the research presented on the suggested theoretical model of combining "meaning-making" and "mentoring-community" with educationally purposeful engagement activities is related and useful in assisting mission driven faith-based colleges and universities in developing and evaluating their policies and practices as they relate to the student outcomes of spirituality, values and ethics, and diversity.

Implications for Policy and Practices

The findings of this study have important implications for administrators, faculty, student affairs professionals, and other stakeholders interested in assessing student outcomes and improving practice in higher education, especially as it relates to their mission. Using the NSSE dataset provides a reliable and valid instrument that can be used in innovative and expansive ways and can be used to satisfy assessment requirements (Keller & Hammang, 2008).

First, the design of this study allows institutions the ability to assess student engagement patterns by developing benchmarks or performance indicators that can be used to measure the success or failure in the meeting of the goals related to the growth of character. By providing baseline measures and standards, institutions can carry out assessment systematically each year and for each cohort of students. NSSE as an assessment tool can provide an institution with a cost-effective method for gathering data to start discussions among the stakeholders. Because continuous improvement is the goal of accountability, the NSSE dataset can be utilized each year rather than conducting a single-year study. This study revealed that students at public and mission driven institutions did not have quality interactions with faculty, especially in the development of an understanding of people of different racial and ethnic backgrounds. These institutions should find ways of making students feel more comfortable and connected to their faculty through activities that foster informal student-faculty interaction, such as mentoring programs, study halls, living-learning communities, and extra-curricular activities.

A second implication of this study expands the students' participation in the assessment process. Because students can be the best source of information about their college experience, their willingness to share ideas can assist institutions in determining the realization of mission. Inclusion in the process also creates additional opportunities to provide a supportive, caring environment, which has positive educational effects on student growth. Institutions should consider student feedback as part of the process for academic and institutional policy planning.

The third implication brings administration, faculty, student affairs professionals and staff together to enhance their understanding of the values set in the mission. It also has the ability to engage all stakeholders in conversation and include them in the planning and evaluating process. It also has the potential of interesting faculty in research of their own, especially as it relates to survey results. Additionally, it can provide information on effective as well as ineffective curricular strategies being used. Student affairs professionals can use the information to evaluate student-programming outcomes along with finding best practices and identifying areas in need of improvement. Opportunities arise among student affairs professionals and faculty to work collaboratively to create environments that enhance the development of character in and out of the classroom.

Finally, the findings of this study assist in identifying areas of best practice by providing evidence to the administration of these institutions, keeping them focused on continuous improvement and the transformation of campus life, especially as it relates to mission. Additionally, the benchmarking of character can provide administrators the information they need to confer bragging rights, recruit students, increase philanthropy, and improve society. With the right assessment tools, stakeholders at these institutions

can continue to be focused, guide students in their development, as well as improve practices in higher education.

Implication for Future Research

This study focused on the relationship between student engagement and the self-reported outcomes related to character development for senior undergraduate students at liberal arts and mission driven faith-based institutions. While this study has attempted to enrich the literature by providing an alternative examination of the five benchmarks of engagement provided by the NSSE, there are many additional areas of future research to explore. Hopefully, this study will initiate other research questions that could assist in the assessment of character development.

First, scholars have frequently recommended that mixed methods of analysis should be employed when assessing institutional performance (Banta, Pike & Hansen, 2009). A qualitative study could reveal more in-depth research if paired with the analysis utilized in this study using the NSSE dataset at a single institution. Complementing this quantitative study with qualitative methods such as focus groups and individual open-ended interviews could reveal findings that may be more meaningful and possibly validate or disqualify the NSSE results, which have recently been criticized in the press (Schmidt, 2011).

Second, the dataset used in this study was from the 2007 NSSE survey. Replication of this study could be conducted using datasets from multiple years. This longitudinal design would add additional insight into student trends possibly associated with changes in policy and practice.

Third, while this study investigated the relationship between senior students and their engagement patterns using the NSSE benchmarks, future research could be designed to examine change over time. Using freshmen surveys matched with senior surveys from the same cohort of students, analysis could confirm or refute the conclusions of this research and determine the broader impact of institutional policies and practices.

Fourth, because there may be other factors affecting character development, additional research could be conducted using the NSSE dataset paired with other predictor variables not included in the framework of this study. Because the NSSE is limited in the information it provides, at the institution level researchers can link the data with the Beginning College Survey of Student Engagement (BCSSE) or other internal records such as the student's high school grades, standardized tests, courses taken, financial aid, and other demographic information.

Fifth, a study can be designed utilizing more advanced analysis such as hierarchical linear modeling (HLM). Using HLM will not only allow the researcher to understand the main effects of both the individual-level and institutional-level measurements but will also provide a better measure of the effects various characteristics predict different variables at different levels (Bryk & Raudenbush, 2001).

Sixth, because the NSSE was not intentionally designed to investigate character development, future research should be conducted combining the scores from various other survey instruments related to spirituality, diversity, and moral reasoning. Survey instruments such as the Defining Issues Test (DIT) can provide further evidence of the student's growth in moral judgment.

Finally, because this study utilized the student's individual aggregated benchmark score in the analysis, future research could examine the individual items composing the benchmarks (see Appendices C - G). While benchmark scores are very useful in providing a general overview of the engagement patterns on campus, individual items comprising the benchmarks are more useful in identifying items for the continual improvement of student engagement on campus (Pike, 2006).

Concluding Comments

In order for mission driven faith-based institutions to imbue their students with the values stated in their mission statements, it is imperative that they provide a variety of experiences in which they can be actively engaged. Such experiences leading to student learning are central to the purpose of higher education. The more connected and involved students become during the time they attend these institutions, the more likely that they will develop the desired outcomes. Student outcomes assessment is instrumental documentation for institutions with value-based missions. Because exposure to best practices are positively correlated to student learning outcomes, the results of this study add to the literature regarding the accountability for mission related faith-based and liberal arts colleges.

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Appendix A

National Survey of Student Engagement 2007

The College Student Report

1 In your experience at your institution during the current school year, about how often have you done each of the following? Mark your answers in the boxes. Examples: ☒ or ■

	Very often	Often	Some-times	Never
a. Asked questions in class or contributed to class discussions	☐	☐	☐	☐
b. Made a class presentation	☐	☐	☐	☐
c. Prepared two or more drafts of a paper or assignment before turning it in	☐	☐	☐	☐
d. Worked on a paper or project that required integrating ideas or information from various sources	☐	☐	☐	☐
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	☐	☐	☐	☐
f. Come to class without completing readings or assignments	☐	☐	☐	☐
g. Worked with other students on projects **during class**	☐	☐	☐	☐
h. Worked with classmates **outside of class** to prepare class assignments	☐	☐	☐	☐
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	☐	☐	☐	☐
j. Tutored or taught other students (paid or voluntary)	☐	☐	☐	☐
k. Participated in a community-based project (e.g., service learning) as part of a regular course	☐	☐	☐	☐
l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	☐	☐	☐	☐
m. Used e-mail to communicate with an instructor	☐	☐	☐	☐
n. Discussed grades or assignments with an instructor	☐	☐	☐	☐
o. Talked about career plans with a faculty member or advisor	☐	☐	☐	☐
p. Discussed ideas from your readings or classes with faculty members outside of class	☐	☐	☐	☐
q. Received prompt written or oral feedback from faculty on your academic performance	☐	☐	☐	☐
r. Worked harder than you thought you could to meet an instructor's standards or expectations	☐	☐	☐	☐
s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	☐	☐	☐	☐
t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	☐	☐	☐	☐
u. Had serious conversations with students of a different race or ethnicity than your own	☐	☐	☐	☐
v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	☐	☐	☐	☐

2 During the current school year, how much has your coursework emphasized the following mental activities?

	Very much	Quite a bit	Some	Very little
a. **Memorizing** facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	☐	☐	☐	☐
b. **Analyzing** the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	☐	☐	☐	☐
c. **Synthesizing** and organizing ideas, information, or experiences into new, more complex interpretations and relationships	☐	☐	☐	☐
d. **Making judgments** about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	☐	☐	☐	☐
e. **Applying** theories or concepts to practical problems or in new situations	☐	☐	☐	☐

3 **During the current *school year*, about how much reading and writing have you done?**

a. Number of assigned textbooks, books, or book-length packs of course readings

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

c. Number of written papers or reports of **20 pages or more**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

d. Number of written papers or reports **between 5 and 19 pages**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

e. Number of written papers or reports of **fewer than 5 pages**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

4 **In a *typical week*, how many homework problem sets do you complete?**

	None	1-2	3-4	5-6	More than 6
a. Number of problem sets that take you **more** than an hour to complete	☐	☐	☐	☐	☐
b. Number of problem sets that take you **less** than an hour to complete	☐	☐	☐	☐	☐

5 **Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work.**

Very little ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Very much

6 **During the current school year, about how often have you done each of the following?**

	Very often	Often	Some-times	Never
a. Attended an art exhibit, play, dance, music, theater, or other performance	☐	☐	☐	☐
b. Exercised or participated in physical fitness activities	☐	☐	☐	☐
c. Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.)	☐	☐	☐	☐
d. Examined the strengths and weaknesses of your own views on a topic or issue	☐	☐	☐	☐
e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	☐	☐	☐	☐
f. Learned something that changed the way you understand an issue or concept	☐	☐	☐	☐

7 **Which of the following have you done or do you plan to do before you graduate from your institution?**

	Done	Plan to do	Do not plan to do	Have not decided
a. Practicum, internship, field experience, co-op experience, or clinical assignment	☐	☐	☐	☐
b. Community service or volunteer work	☐	☐	☐	☐
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	☐	☐	☐	☐
d. Work on a research project with a faculty member outside of course or program requirements	☐	☐	☐	☐
e. Foreign language coursework	☐	☐	☐	☐
f. Study abroad	☐	☐	☐	☐
g. Independent study or self-designed major	☐	☐	☐	☐
h. Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)	☐	☐	☐	☐

8 **Mark the box that best represents the quality of your relationships with people at your institution.**

a. Relationships with **other students**

Unfriendly, Unsupportive, Sense of alienation ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Friendly, Supportive, Sense of belonging

b. Relationships with **faculty members**

Unavailable, Unhelpful, Unsympathetic ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Available, Helpful, Sympathetic

c. Relationships with **administrative personnel and offices**

Unhelpful, Inconsiderate, Rigid ☐1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 Helpful, Considerate, Flexible

9 About how many hours do you spend in a typical 7-day week doing each of the following?

a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30
Hours per week

b. Working for pay **on campus**

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30
Hours per week

c. Working for pay **off campus**

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30
Hours per week

d. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30
Hours per week

e. Relaxing and socializing (watching TV, partying, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30
Hours per week

f. Providing care for dependents living with you (parents, children, spouse, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30
Hours per week

g. Commuting to class (driving, walking, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30
Hours per week

10 To what extent does your institution emphasize each of the following?

	Very much	Quite a bit	Some	Very little
a. Spending significant amounts of time studying and on academic work	☐	☐	☐	☐
b. Providing the support you need to help you succeed academically	☐	☐	☐	☐
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	☐	☐	☐	☐
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	☐	☐	☐	☐
e. Providing the support you need to thrive socially	☐	☐	☐	☐
f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	☐	☐	☐	☐
g. Using computers in academic work	☐	☐	☐	☐

11 To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

	Very much	Quite a bit	Some	Very little
a. Acquiring a broad general education	☐	☐	☐	☐
b. Acquiring job or work-related knowledge and skills	☐	☐	☐	☐
c. Writing clearly and effectively	☐	☐	☐	☐
d. Speaking clearly and effectively	☐	☐	☐	☐
e. Thinking critically and analytically	☐	☐	☐	☐
f. Analyzing quantitative problems	☐	☐	☐	☐
g. Using computing and information technology	☐	☐	☐	☐
h. Working effectively with others	☐	☐	☐	☐
i. Voting in local, state, or national elections	☐	☐	☐	☐
j. Learning effectively on your own	☐	☐	☐	☐
k. Understanding yourself	☐	☐	☐	☐
l. Understanding people of other racial and ethnic backgrounds	☐	☐	☐	☐
m. Solving complex real-world problems	☐	☐	☐	☐
n. Developing a personal code of values and ethics	☐	☐	☐	☐
o. Contributing to the welfare of your community	☐	☐	☐	☐
p. Developing a deepened sense of spirituality	☐	☐	☐	☐

12 Overall, how would you evaluate the quality of academic advising you have received at your institution?

☐ Excellent
☐ Good
☐ Fair
☐ Poor

13 How would you evaluate your entire educational experience at this institution?

☐ Excellent
☐ Good
☐ Fair
☐ Poor

14 If you could start over again, would you go to the *same institution* you are now attending?

☐ Definitely yes
☐ Probably yes
☐ Probably no
☐ Definitely no

15 Write in your year of birth: 1 9 _ _

16 Your sex:
- ☐ Male
- ☐ Female

17 Are you an international student or foreign national?
- ☐ Yes
- ☐ No

18 What is your racial or ethnic identification? (Mark only one.)
- ☐ American Indian or other Native American
- ☐ Asian, Asian American, or Pacific Islander
- ☐ Black or African American
- ☐ White (non-Hispanic)
- ☐ Mexican or Mexican American
- ☐ Puerto Rican
- ☐ Other Hispanic or Latino
- ☐ Multiracial
- ☐ Other
- ☐ I prefer not to respond

19 What is your current classification in college?
- ☐ Freshman/first-year
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ Unclassified

20 Did you begin college at your current institution or elsewhere?
- ☐ Started here
- ☐ Started elsewhere

21 Since graduating from high school, which of the following types of schools have you attended other than the one you are attending now? (Mark all that apply.)
- ☐ Vocational or technical school
- ☐ Community or junior college
- ☐ 4-year college other than this one
- ☐ None
- ☐ Other

22 Thinking about this current academic term, how would you characterize your enrollment?
- ☐ Full-time
- ☐ Less than full-time

23 Are you a member of a social fraternity or sorority?
- ☐ Yes
- ☐ No

24 Are you a student-athlete on a team sponsored by your institution's athletics department?
- ☐ Yes
- ☐ No (Go to question 25.)

On what team(s) are you an athlete (e.g., football, swimming)? Please answer below:

25 What have most of your grades been up to now at this institution?
- ☐ A
- ☐ A-
- ☐ B+
- ☐ B
- ☐ B-
- ☐ C+
- ☐ C
- ☐ C- or lower

26 Which of the following best describes where you are living now while attending college?
- ☐ Dormitory or other campus housing (not fraternity/sorority house)
- ☐ Residence (house, apartment, etc.) within **walking distance** of the institution
- ☐ Residence (house, apartment, etc.) within **driving distance** of the institution
- ☐ Fraternity or sorority house

27 What is the highest level of education that your parent(s) completed? (Mark one box per column.)

Father	Mother	
☐	☐	Did not finish high school
☐	☐	Graduated from high school
☐	☐	Attended college but did not complete degree
☐	☐	Completed an associate's degree (A.A., A.S., etc.)
☐	☐	Completed a bachelor's degree (B.A., B.S., etc.)
☐	☐	Completed a master's degree (M.A., M.S., etc.)
☐	☐	Completed a doctoral degree (Ph.D., J.D., M.D., etc.)

28 Please print your major(s) or your expected major(s).

a. Primary major (Print only one.):

b. If applicable, second major (not minor, concentration, etc.):

THANKS FOR SHARING YOUR VIEWS!

After completing the survey, please put it in the enclosed postage-paid envelope and deposit it in any U.S. Postal Service mailbox. Questions or comments? Contact the National Survey of Student Engagement, Indiana University, 1900 East Tenth Street, Eigenmann Hall Suite 419, Bloomington IN 47406-7512 or nsse@indiana.edu or www.nsse.iub.edu.

Appendix B
Student Sample by Institutional Type

Institutional Type	Frequency (n=24,914)	Percentage
Catholic Colleges & Universities	971	3.8
Council for Christian Colleges & Universities	787	3.2
Jesuit Universities	818	3.3
Private Liberal Arts Colleges & Universities	147	.6
Other Colleges & Universities not in Consortium	22,191	89.1
Total	24,914	100.0

Appendix C

Level of academic challenge (AC) benchmark frequency percentages by item

Item	Response Values	Frequency Percentage
In your experience at your institution during the current school year, about how often have you done each of the following?		
Worked harder than you thought you could to meet an instructor's standards or expectations	1 = Never	5.9
	2 = Sometimes	35.9
	3 = Often	38.2
	4 = Very often	20.0
During the current school year, how much has your coursework emphasized the following mental activities?		
Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	1 = Very little	1.3
	2 = Some	14.0
	3 = Quite a bit	43.4
	4 = Very much	41.3
Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	1 = Very little	3.0
	2 = Some	21.9
	3 = Quite a bit	40.7
	4 = Very much	34.4
Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	1 = Very little	4.6
	2 = Some	23.5
	3 = Quite a bit	39.7
	4 = Very much	32.2
Applying theories or concepts to practical problems or in new situations	1 = Very little	2.5
	2 = Some	16.8
	3 = Quite a bit	37.6
	4 = Very much	43.1

During the current school year, about how much reading and writing have you done?		
Number of assigned textbooks, books, or book-length packs of course readings	1 = None	1.2
	2 = 1-4	25.8
	3 = 5-10	38.3
	4 = 11-20	21.6
	5 = More than 20	13.1
Number of written papers or reports of 20 pages or more	1 = None	48.1
	2 = 1-4	44.1
	3 = 5-10	5.5
	4 = 11-20	1.3
	5 = More than 20	1.0
Number of written papers or reports between 5 and 19 pages	1 = None	8.3
	2 = 1-4	42.5
	3 = 5-10	33.3
	4 = 11-20	11.6
	5 = More than 20	4.3
Number of written papers or reports of fewer than 5 pages	1 = None	5.5
	2 = 1-4	32.5
	3 = 5-10	28.2
	4 = 11-20	18.5
	5 = More than 20	15.3
About how many hours do you spend in a typical 7-day week doing each of the following?		
Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	1 = 0	.4
	2 = 1-5	17.3
	3 = 6-10	26.5
	4 = 11-15	19.7
	5 = 16-20	15.6
	6 = 21-25	9.0
	7 = 26-30	5.4
	8 = More than 30 hours	6.1

To what extent does your institution emphasize each of the following?

Spending significant amounts of time studying and on academic work	1 = Very little	2.1
	2 = Some	17.9
	3 = Quite a bit	46.3
	4 = Very much	33.7

Appendix D

Active and Collaborative Learning (ACL) benchmark frequency percentages by item

Item	Response Values	Frequency Percentage
In your experience at your institution during the current school year, about how often have you done each of the following?		
Asked questions in class or contributed to class discussions	1 = Never	1.7
	2 = Sometimes	25.7
	3 = Often	32.9
	4 = Very often	39.7
Made a class presentation	1 = Never	4.2
	2 = Sometimes	32.7
	3 = Often	38.1
	4 = Very often	25.0
Worked with others on projects during class	1 = Never	10.0
	2 = Sometimes	43.0
	3 = Often	31.4
	4 = Very often	15.6
Worked with classmates outside of class to prepare class assignments	1 = Never	6.4
	2 = Sometimes	33.9
	3 = Often	35.1
	4 = Very often	24.6
Tutored or taught other students (paid or voluntary)	1 = Never	41.7
	2 = Sometimes	35.6
	3 = Often	12.9
	4 = Very often	9.8
Participated in a community-based project (e.g. service learning) as part of a regular course	1 = Never	50.3
	2 = Sometimes	31.4
	3 = Often	11.6
	4 = Very often	6.7

Discussed ideas from your readings or classes with other outside of class (students, family members, co-workers, etc.)	1 = Never	3.7
	2 = Sometimes	32.9
	3 = Often	37.7
	4 = Very often	25.7

Appendix E

Student-Faculty Interaction (SFI) benchmark frequency percentages by item

Item	Response Values	Frequency Percentage
In your experience at your institution during the current school year, about how often have you done each of the following?		
Discussed grades or assignments with an instructor	1 = Never	4.0
	2 = Sometimes	35.9
	3 = Often	33.2
	4 = Very often	26.9
Talked about career plans with a faculty member or advisor	1 = Never	14.8
	2 = Sometimes	40.6
	3 = Often	26.1
	4 = Very often	18.5
Discussed ideas from your readings or classes with faculty members outside of class	1 = Never	26.7
	2 = Sometimes	45.0
	3 = Often	18.3
	4 = Very often	10.0
Received prompt written or oral feedback from faculty on your academic performance	1 = Never	3.9
	2 = Sometimes	30.4
	3 = Often	45.8
	4 = Very often	19.9
Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	1 = Never	43.6
	2 = Sometimes	32.7
	3 = Often	14.8
	4 = Very often	8.9

Which of the following have you done or do you plan to do before you graduate from your institution?

Work on a research project with a faculty member outside of course or program requirements	1 = Have not decided	14.8
	2 = Do not plan to do	55.2
	3 = Plan to do	9.8
	4 = Done	20.2

Appendix F

Enriching Educational Experiences (EEE) benchmark frequency percentages by item

Item	Response Values	Frequency Percentage
In your experience at your institution during the current school year, about how often have you done each of the following?		
Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	1 = Never	11.6
	2 = Sometimes	27.9
	3 = Often	26.9
	4 = Very often	33.6
Had serious conversations with students of a different race or ethnicity than your own	1 = Never	12.5
	2 = Sometimes	36.3
	3 = Often	26.7
	4 = Very often	24.5
Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	1 = Never	9.1
	2 = Sometimes	35.2
	3 = Often	29.7
	4 = Very often	26.0
Which of the following have you done or do you plan to do before you graduate from your institution?		
Practicum, internship, field experience, co-op experience, or clinical assignment	1 = Have not decided	7.0
	2 = Do not plan to do	16.1
	3 = Plan to do	19.2
	4 = Done	57.7
Community service or volunteer work	1 = Have not decided	8.5
	2 = Do not plan to do	15.8
	3 = Plan to do	12.0
	4 = Done	63.7

Participate in a learning community or some other formal program where groups of students take two or more classes together	1 = Have not decided	13.0
	2 = Do not plan to do	53.6
	3 = Plan to do	6.6
	4 = Done	26.8
Foreign language coursework	1 = Have not decided	7.2
	2 = Do not plan to do	42.4
	3 = Plan to do	7.1
	4 = Done	43.3
Study abroad	1 = Have not decided	11.0
	2 = Do not plan to do	65.2
	3 = Plan to do	7.1
	4 = Done	16.7
Independent study or self-designed major	1 = Have not decided	10.7
	2 = Do not plan to do	62.4
	3 = Plan to do	7.2
	4 = Done	19.7
Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)	1 = Have not decided	9.5
	2 = Do not plan to do	25.9
	3 = Plan to do	27.8
	4 = Done	36.8

Appendix G

Supportive Campus Environment (SCE) benchmark frequency percentages by item

Item	Response Values	Frequency Percentage
Mark the box that best represents the quality of your relationship with people at your institution.		
Relationships with other students	1 = Unfriendly, Unsupportive, Sense of Alienation	.7
	2	2.1
	3	4.2
	4	10.0
	5	19.9
	6	30.2
	7 = Friendly, Supportive, Sense of Belonging	32.9
Relationships with faculty members	1 = Unavailable, Unhelpful, Unsympathetic	.6
	2	2.2
	3	4.6
	4	12.3
	5	23.2
	6	31.6
	7 = Available, Helpful, Sympathetic	25.5
Relationships with administrative personnel and offices	1 = Unhelpful, Inconsiderate, Rigid	4.8
	2	8.6
	3	11.3
	4	20.9
	5	21.7
	6	18.5
	7 = Helpful, Considerate,	14.2

Flexible

To what extent does your institution emphasize of the following?		
Providing the support you need to help you succeed academically	1 = Very little	4.8
	2 = Some	24.2
	3 = Quite a bit	44.0
	4 = Very much	27.0
Helping you cope with your non-academic responsibilities (work, family, etc.)	1 = Very little	37.0
	2 = Some	38.2
	3 = Quite a bit	17.6
	4 = Very much	7.2
Providing the support you need to thrive socially	1 = Very little	24.8
	2 = Some	40.3
	3 = Quite a bit	25.6
	4 = Very much	9.3

Appendix H

Summary of Variables in the Model

Variable Name	NSSE Name	Description
Developing a deepened sense of spirituality	GNSPIRIT	Categorical: 0 = Very Little 1= Some 2=Quite a Bit/Very Much
Developing a personal code of value and ethics	GNETHNICS	Categorical: 0 = Very Little 1= Some 2=Quite a Bit/Very Much
Understanding people of other racial and ethnic backgrounds	GNDIVERS	Categorical: 0 = Very Little 1= Some 2=Quite a Bit/Very Much
Level of Academic Challenge	AC	Continuous: z-scored
Active and Collaborative Learning	ACL	Continuous: z-scored
Student-Faculty Interaction	SFI	Continuous: z-scored
Enriching Educational Experiences	EEE	Continuous: z-scored
Supportive Campus Environment	SCE	Continuous: z-scored
Gender	sex	Categorical: 0=Female 1=Male
Race/Ethnicity	race05	Categorical: 10 responses white is reference = 1
Primary Major Code	majrpcod	Categorical: 10 responses arts and humanities is reference = 1
Institution Type	consorti	Categorical: 0=Consortium 1=Public 2=Private
Spiritual Activities	WORSHP05	Categorical: 0=Never to Sometimes 1=Often to Very Often
Diverse Activities	DIVCLASS	Categorical: 0=Never to Sometimes 1=Often to Very Often