DISSERTATION

FACULTY MENTORING IN RESIDENCE HALLS:

AN EXPERIENTIAL LEARNING PROCESS

Submitted by

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ABSTRACT

FACULTY MENTORING IN RESIDENCE HALLS:

AN EXPERIENTIAL LEARNING PROCESS

As more demands are being placed on faculty inside of the classroom, the debate surrounding the feasibility of faculty having the time and resources to be involved outside the classroom continues. At the same time there is a growing concern that in light of current advancements in technology; oral communication skills, basic to human existence is going by the wayside and the ability to use the fire of conversation can no longer be taken for granted. Campuses also have the challenge of helping students develop their communication, life, and learning skills. In the 21st century, where information is instantly available 24/7 on the internet, critical thinking and life skills need to be stressed and developed (Marques, 2011). White (2011) recommended faculty mentors assist their student mentees in developing problem-solving skills, branching outside their comfort zone, addressing unfamiliar situations, and exploring further self-discovery by guiding versus doing it for them.

The research design for this study utilized a large number of questions taken from the National Survey of Student Engagement (NSSE), to solicit feedback on student engagement on an institutional level, along with additional questions supplied by the researcher (referred to as non-NSSE constructs) in order to solicit student and faculty feedback on the impact of faculty mentoring on personal development and experiential learning. This comparative study explored the relationship between faculty mentoring

and student engagement (i.e. NSSE constructs), and faculty mentoring and student development and learning (i.e. non-NSSE constructs) in an experiential learning environment (i.e. on-campus residence halls). Students who responded to the open ended question on the survey indicated that the mentor/mentee relationship impacted them in a significant way. Students' introspective comments are reflective and point to an in-depth personal and applied learning experience, where students with mentors found ways to integrate new information from mentors into their own experience.

The theoretical population for this study included students living in an on-campus residence hall that offered a faculty mentoring program. Also, the survey sample population involved one public institution in each of the following states: Illinois, California, and Texas. The total number of participants involved in the study was 364.

The results of the study suggest that faculty-student interaction outside of the classroom does have an impact on student's personal development and learning. Also, the research revealed that gender had a significant effect on sensitivity to diversity, effective communication, personal growth, personal and social development. Ethnicity had a significant effect on sensitivity to diversity, effective communication, personal growth, personal and social development, support for student success, and reflective learning. In addition, there are a number of practical implications based on the outcome of the survey that can be used by campuses wanting to implement a faculty mentor program or renew and revive an existing one.

ACKNOWLEDGEMENTS

complete my goal. You believed in me when I wanted to give up. Thank you for never

letting me give up!

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CHAPTER 1: INTRODUCTION AND BACKGROUND

It is seven o'clock on a Wednesday evening and residents of the fourth floor in Draper Hall are preparing to attend an educational program coordinated by their Resident Assistant (RA), Dion. The topic is Tattoos–Good or Bad? At the same time residents begin to arrive in the community lounge, a tenured professor in the Communications department (Bill) is clearing his office-desk for the evening and preparing to walk across campus. His destination was Draper residence hall to deliver a program titled Tattoos– Good or Bad. Bill is excited yet somewhat apprehensive. He has not been in a dorm since his college days, over 20 years ago. On the walk over Bill continues to wonder if he should have accepted the invitation at such a late hour and in a place he has never been with students he has never officially met or taught. Bill arrives at the hall and makes his way to the community room. He is greeted by the RA and curious looks from the 18 to 19 year olds in attendance.

The RA begins the program, but before moving on to the topic of tattoos, he introduces Bill as the floor's new faculty mentor. Most students continue to just stare at Bill, while some muster up a small smile and hello. After 30 minutes of reviewing the history of tattooing and some of the dos and don'ts, Dion asks if any members of the audience would like to show their tattoo and talk about what it means to them. After a number of students show off their tattoos and discuss their meaning, Bill quietly stands up and begins to loosen his tie. All eyes are now fixed on Bill, wondering what his intent

is. Bill continues by unbuttoning the top three buttons of his shirt, revealing the handle of

what turns out to be a medieval sword tattooed from the top of his chest all the way down

to his belly button. Everyone's eyes are riveted on Bill as he talks about his passion for

medieval history and his fascination with the Roman Spatha, used throughout first

millennium Europe and the territory of the Roman Empire. Bill continues telling the story

of medieval Europe to what is now a captivated audience.

After the program comes to a close, many of the residents stay afterward to listen

to Bill talk more about a topic that in the classroom seems much more distant and

relatively lackluster. After 30 minutes of a lively discussion, Bill walks to his car. He

can't help but feel the energy flowing through his body. After all, he just made a

connection outside of the classroom with six students in their environment; something he

typically does not accomplish within an entire academic year. His conversation topic was

educational as well as a personal passion. And the most invigorating part was that the

students wanted to be there and wanted to hear his story. No notes, no tests, no blank

stares, no glazed looks. They engaged in an educational conversation about medieval

Europe. Yes, this was a good night, indeed.

The scenario above summarizes the potential impact of a faculty mentor program

in a group setting for undergraduate students who are learning and developing on the

basis of academic and non-academic activities inside and outside the classroom (Kuh,

Douglas, Lund, & Ramin-Gyurnek, 1994).

Existing Research on the Issue

Faculty involvement in residence halls has its origins as early as the 16th century

at institutions such as Oxford and Cambridge (Bonner, 2009). Riker's prophetic

prediction of 1965 that future residential housing programs will "parallel the colleges of European Renaissance universities" in regards to student-faculty interaction in the residence halls (Riker, 1965, p.5) has come true.

Faculty and administrators have sensed the benefits, which have been affirmed through research), that student-faculty interaction outside the classroom affects student retention (Astin, 1993; Tinto 1993). Faculty-student engagement has gained popularity nationally as campuses strive to create interactive environments outside the classroom, such as in the residence halls (Benjamin & Vianden, 2011). Research by Astin (2001) and Kuh (2007) has shown that faculty presence in residence halls benefits students and the institution as a whole. Students who have contact with faculty outside the classroom have higher retention rates leading to graduation at the same institution, are more satisfied with college, and consider the amount of time they spend with full-time faculty to be very or extremely important (Chartwells College Student Survey, 2006; Tinto, 1993). The National Student Engagement Survey (NSSE) showed that students who live on campus are more engaged in on-campus activities and interaction with faculty than other students, based on easy access to campus resources (Kuh, 2003). Faculty members are aware of the campus surroundings and play an integral role in helping the students utilize physical and social resources that exist around them (Dewey, 1998). Students who had access to faculty members were found to be at an advantage and be more willing to make and learn from mistakes due to the support and guidance available through faculty support (McKeachie, Chism, Menges, Svinicki, & Weinstein, 1994).

Faculty members involved with students in out-of-classroom experiences also benefited from the mentoring experience, according to Riker (1965). Faculty members

have gained a greater understanding of students' needs, expectations, strengths, and weaknesses, which can lead to better structured academic expectations. Also, successful mentor-mentee pairs can continue their relationship long after graduation (Lockwood, Evans, & Eby, 2007). Faculty participating in the programs can gain a unique perspective on student life and an opportunity to interact with students in learning outside the classroom, which they can use towards the development and effectiveness of their personal teaching methods (Riker, 1965). Faculty involvement leads to community building, intellectual discourse, personal growth, career and idea exploration, creative thinking, and the practice of lifelong and seamless learning.

Rationale for the Study

Student and Academic Affairs professionals continue to debate the feasibility and effectiveness of faculty involvement in residence halls through programs such as faculty-in-residence and living-learning communities. These programs place significant financial and time constraints on the faculty, the academic program, and the housing department sponsoring these initiatives. This research reviewed three public institutions that have taken these national programs, created a hybrid program, and termed it a *faculty mentoring program*. These programs did not require a faculty member to live in the residential community, nor did they require all students to be enrolled in a particular major. These institutions have attempted to create an environment of informal learning through faculty participation in the residential communities' educational and social programs, as well as casual one-to-one interactions outside of the classroom. The purpose of this study was to explore the relationship of faculty mentoring outside the classroom on student engagement, personal development, and learning in an experiential living

environment. Students self-reported their academic and social experiences based on their

engagement or non-engagement in a residence hall faculty mentoring programs; as

determined by the National Survey of Student Engagement (NSSE) Copyright 2001-12

questionnaire and additional questions related to the faculty mentor program. NSSE

questions measured student engagement through five constructs: practical competence,

general education, personal and social development, support for student success, and

reflective learning; the questions related to the faculty mentoring program measured

personal development and experiential learning through three constructs: personal

growth, effective communication, and sensitivity to diversity.

There is abundant literature available that endorses the concept of mentoring and

the positive outcomes that stem from the mutual relationship between the mentor and

mentee. These relationships are a part of and apply to any field and any profession. This

positive endorsement through the literature is especially true for areas that require skills

to interact with people, of which education is one. This study looked at the concept of

experiential learning, which is common for disciplines such as biology, forestry,

archeology, and geology (McKeachie, Chism, Menges, Svinicki, & Weinstein, 1994),

and has recently grown in its application. Experiential learning is now quite popular in

the field of outdoor education, service learning, and adult education (Wurdinger, 2005).

This study took the application of experiential learning and applied it to the mentoring

process.

Purpose of the Study

Increasingly, faculty-in-residence and living-learning programs continue to be on

the chopping block due to the financial cost and time commitment required by both the

academic departments and their student affairs counterparts. Faculty mentoring programs have evolved as a hybrid of the traditionally more costly programs and found their niche in bringing faculty and students together in a less structured environment. These programs were inexpensive, less time consuming, less invasive, open to any resident, and yet arguably an effective way to engage students in experiential learning through the mentoring process outside of the classroom or laboratory.

The faculty mentoring programs as described in this study have provided a vehicle through which opportunities become available for all students to enhance their educational experience. This model is contrary to the specialized nature of living-learning or faculty-in-residence programs where students have to petition and actually apply to be part of these experiences. These faculty mentor programs simply paired-up university faculty with resident assistants (RA) and their respective floors or communities in the residence halls. All that was required was a willing faculty member, one interested resident assistant, and an ability to create a floor environment where these two entities could interact and exchange ideas. The magic was in its simplicity and its spontaneity through which the ancient art of storytelling was revived and embraced.

The program goals strived to do the following:

a) To increase faculty presence and role modeling in the residence halls,

b) To provide opportunities for faculty and students to interact outside the classroom,

c) To provide a seamless transition between the classroom and the residence hall environment, and

d) To increase personalization of the residence halls, and ultimately the university community, leading to higher student retention, satisfaction, and academic success.

The survey data collected from the three public institutions of higher education provide some insight into the student-faculty mentoring relationship. The data could be useful in creating faculty mentor program standards and implementation model. Programs that share similar components may lend themselves to using it as a national benchmarking assessment instrument, which is currently lacking in the field.

Conceptual Framework

This study used Kram's (1995) Phases of Mentoring Relationship, a conceptual framework that identifies four phases that a mentor-mentee relationship will experience: initiation, cultivation, separation, and redefinition. Kram described the four mentoring phases as follows:

> Initiation phase, when the relationship is started, a cultivation phase, when the range of functions provided expands to a maximum, a separation phase, when the nature of the relationship is altered by structural changes in the organizational context and/or by psychological changes within one or both individuals, and a redefinition phase, when the relationship either evolves into a completely or new form or ends entirely. (p. 48)

As is evident, Kram placed importance on the critical transitions within the mentoring process. At some point for a mentee to develop a sense of self-identity, the dependency on the mentor must end.

Mertz (2004) built on Kram's model (1985) and distinguished a mentor's role from that of a role model, teacher, advisor, sponsor, and protector. According to Mertz a role model is concerned about the psychosocial development, a teacher or advisor concentrates on professional development, and a sponsor and patron emphasizes career

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advancement. A mentor is concerned with all of the above and is further emotionally vested in all aspects of the mentee's psychosocial, professional, and career development.

The three constructs used in this study are personal growth, effective communication, and sensitivity to diversity. These are based on Riker and Decoster's (2008) model of General Objectives for College Student Housing. Phases one and two concentrate on the physical environment and its ability to be student friendly, and while important, environment is not within the scope of this study. Phase three emphasizes the importance of community living and working cooperatively, which in this study is classified as effective communication. Phase four emphasizes the importance of citizenship and care for others, which in this study it is classified as sensitivity to diversity. Finally, phase five emphasizes the importance of individual growth and opportunity, classified in this study as personal growth (Riker & Decoster, 2008).

Definition of Mentoring

In order to understand the mentoring interaction, it is critical to define three terms that will be used extensively in this paper: mentoring, mentor, and mentee. *Mentoring* is described by Bland, Taylor, Shollen, Weber-Main, and Mulcahy (2009) as a professional relationship with three essential characteristics:

> **First,** mentoring is a relationship with a defined purpose: to help mentees successfully acquire the key competencies and constructive work relationships they need to lead a successful and satisfying career. The specific competencies to be gained are based on the mentee's existing abilities and career goals. **Second,** mentoring is a collaborative learning relationship. It is a relationship that, in the traditional model, draws upon the knowledge of suitably experienced faculty as mentors and upon the commitment of mentees to develop their professional abilities. Because the learning relationship is collaborative, other mentoring models such as peer or group mentoring can also be used successfully. **Third**, mentoring is a relationship that develops over time and passes through specific phases. There is more than just a casual arrangement between the mentor and mentee. (p. 12)

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Mentor is defined as a "wise and trusted teacher" and mentee is "one whose welfare, training, or career is prompted by an influential person (i.e. the mentor)" (Dean, 2009, p. 3-4). Moon (2004) cautioned that experiential learning is not simply formal learning and on the contrary "it is usually not mediated; the material of learning is usually direct experience" (p. 123). The National Society for Experiential Education (NSEE) describes experiential education as "inductive, beginning with raw experience that is processed through an intentional learning format and transformed into working, useable knowledge" (www.nsee.org). In this *study faculty mentoring in residence halls was* defined as "providing an open community for on-going informal interaction and dialogue between faculty and students which takes place in a residence hall environment."

Research Questions

The research questions used in this study consisted of students' self-reported perceptions of the impact faculty mentoring programs had on their engagement, personal development, and learning, which were analyzed through eight constructs. The eight constructs were as follows:

Practical competence: Looked at questions related to ability to solve real-world problems, analyze quantitative problems, use computer and information technology, and acquire job- or work-related knowledge and skills.

Personal and social development: Looked at questions related to engagement with local and national elections, contributions to the welfare of the community, understanding of personal values and ethics, and development of a deepened sense of spirituality.

Support for student success: Looked at questions related to engagement with campus events, contact with students from different economic, social, and racial or ethnic

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background, and having knowledge of academic and non-academic support agencies at the institution.

Reflective learning: Looked at questions related to personal strengths and weaknesses on a topic or issue, understanding others' perspectives, and learning something that changed the way they understand an issue or concept.

General education: Looked at questions related to the ability to write, speak, and think clearly and effectively, participate in activities to enhance their spirituality, and participate in fitness activities.

Personal growth: Looked at questions related to self-esteem, confidence, creativity, intellectual curiosity, and improving interpersonal skills.

Effective communication: Looked at questions related to the ability to balance social and academic obligations, understand teamwork, become involved in campus activities, and approach other faculty members.

Sensitivity to diversity: Looked at questions related to the ability to understand others and empathize, appreciate differences, and gain a better understanding of personal values and attitudes.

The following research and sub-research questions were examined to study the stated purpose:

1) Is there a difference in student's overall score on questions related to five NSSE constructs (practical competence, general education, personal and social development, support for student success, and reflective learning) based on the opportunity to work with a faculty mentor or not?

Related to question 1, the following hypotheses were examined and tested in this study:

a) There is a significant difference as related to self-perception of gaining *practical competence* between students who are exposed to the faculty mentor program versus those who are not.

b) There is a significant difference as related to self-perception of gaining *general education* between students who are exposed to the faculty mentor program versus those who are not.

c) There is a significant difference as related to self-perception of *personal and social development* between students who are exposed to the faculty mentor program versus those who are not.

d) There is a significant difference as related to self-perception of having *support for student success* between students who are exposed to the faculty mentor program versus those who are not.

e) There is a significant difference as related to self-perception of engaging in *reflective learning* between students who are exposed to the faculty mentor program versus those who are not.

2) What are the associations among the five variables: practical competence, general education, personal and social development, support for student success, and reflective learning?

3) Is there a difference in student's overall score on the three constructs related to the faculty mentor program (personal growth, effective communication, and sensitivity to diversity) at the university based on school demographics, ethnicity,

gender, class standing, area of study, student organization membership, and first generation status?

4) Is there an interaction between school demographics and ethnicity and gender in regards to the eight constructs?

5) What are the associations among the three variables: personal growth, effective communication, and sensitivity to diversity?

6) Do students see value in outside the classroom interaction with faculty members?

   The following directional hypotheses were examined and tested in this study:

   a) Students who are exposed to the faculty mentor program through the residence halls will have a higher recommendation to other students to get to know faculty members outside the classroom.

   b) Students who are exposed to the faculty mentor program through the residence halls will score higher on the perception that faculty interaction outside the classroom is beneficial and important to their overall growth and maturity as individuals.

Delimitations

This study was delimited to three public institutions in California, Illinois, and Texas. The study was delimited to full-time undergraduate students who live on-campus, thus off campus residents, commuter students, and part-time students were not included in the study.

Assumptions and Limitations

a. The NSSE questions used a 4-point Likert scale; hence the researcher made the choice to use a similar scale for the non-NSSE questions as well.

The limitation with this scale is that students did not have the option to choose a middle point if they were unsure about how to respond to a question. Thus, students were forced into agreeing or disagreeing with a statement. This may have skewed the data.

b. The NSSE instrument is a well-known national survey. No adjustments were made to the survey, even though some of the items did not load correctly for the five factors.

c. The non-NSSE questions were created by the researcher, and even though a pilot test was conducted to check for validity and reliability, the research pilot test lacks longitudinal data.

d. It was assumed that students would know if their residence hall floor had a faculty mentor assigned to them. It is quite possible that students who were not active on their floors would have never known that they had a faculty mentor.

e. The survey was conducted in late fall semester based on permission from NSSE. NSSE did not want their spring campus survey to overlap with this faculty mentor survey, hence a fall date was chosen. Late fall semester may or may not have been enough time to provide an accurate picture of the faculty mentor program.

f. The amount of time and interaction spent by a faculty mentor on residence hall floors varied; therefore, we cannot assume all students had similar experiences while participating in the program.

g.   The study assumed the belief that mentoring efforts by faculty outside the classroom positively influences students' skill development, as portrayed in Figure 1.
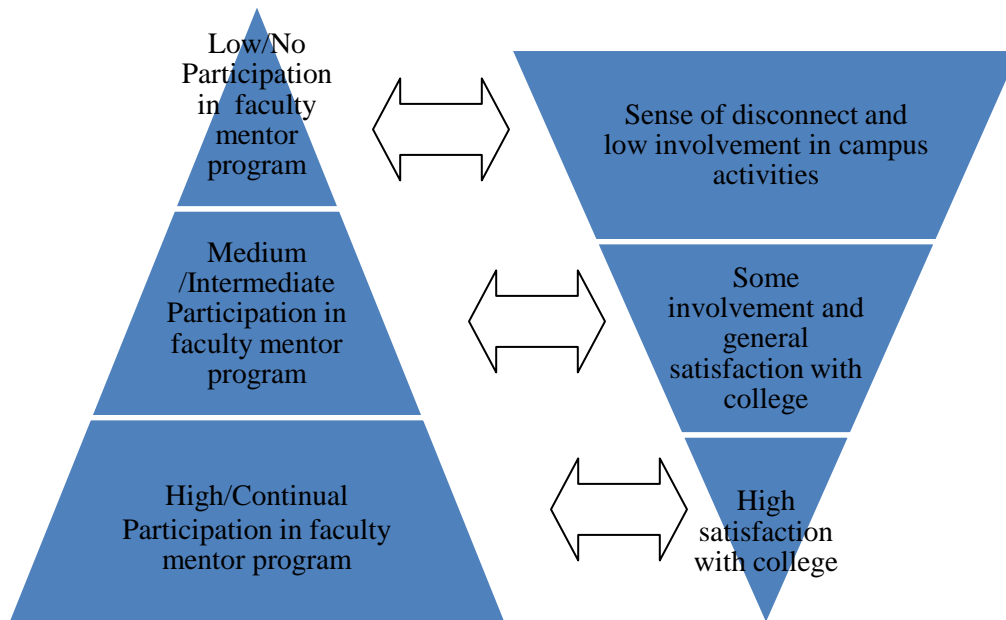
Figure 1. Impact of faculty mentor involvement on college satisfaction.

Researcher's Perspective

I have over fifteen years of experience in working with a faculty mentor program. This experience provides in-depth knowledge and understanding of the spirit of the model along with the knowledge of how to recruit faculty and create residence hall environments supportive of dialogue, debate, and storytelling. It also lends itself to understanding the time commitments of both faculty and staff, thus developing realistic expectations for both the mentors and resident assistants. I have served primarily as the developer and coordinator of the faculty mentoring model but never in the role of a

faculty mentor; therefore, my experience is limited to that of an external observer. I have observed successful faculty mentoring models and the impact they can make on a student's personal and professional growth. I have also witnessed times when students struggled to connect to the program and mentor and see little reason to continue. My observation is that, if a faculty mentor is involved and engaged with the residential community from the beginning of the academic year; students take an interest and learn exponentially from this interaction.

My interest lay in conducting a comparative study utilizing part of a national survey and additional questions geared towards faculty mentor programs to discover if faculty mentoring programs do indeed affects student engagement, personal development, and learning within an experiential learning environment. My research philosophy is post-positivistic, and I believe that data and research is a moving target that is influenced by its environment and a subject's personal experiences. Phillips and Burbules (2000) aptly described post-positivism and human knowledge as "not based on unchallengeable, rock-solid foundations—it is conjectural" (p. 26).

CHAPTER 2: LITERATURE REVIEW

Background

The concept of mentoring is a popular idea in corporate America where the goal of a manager is to mentor protégés in order to assist them to become successful in the organization. Trends in corporate America tend to eventually find their way into other fields, including education. A new trend that has emerged in corporate America is categorized *as e-mentoring. The CEO* of Circle Squared Europe Limited, believed that, with an effective online matching process, quality on-line training and development material, self-assessment tools, and adequate web-based support, a successful business-to-business or business-to-university model can be achieved (Hunt 2005). Hunt defined e-mentoring as "utilizing technology, it is a process by which two people assist each other to grow and learn in a safe and supportive relationship" (p. 8). E-mentoring promises to cross barriers such as location, gender, race, power, time, and cost (Hunt, 2005) and possibly offer employee development in times of corporate downturns, struggling economies, and corporate belt tightening periods (Emelo, 2009). E-mentoring may seem like a tool fit for corporate America only; however, when one thinks about distance education, online professional degrees, and online counseling, e-mentoring may be the wave of tomorrow for higher education as well.

Applicability of Emotional Intelligence to Mentoring

Another commonly used buzz word across many professional fields is emotional intelligence, coined by Goleman in his book *Working with Emotional Intelligence* (1998). The term refers "to the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (p. 317). According to Megginson, emotional intelligence has transcended its narrow application of only being applicable in the work place. It should also be considered for mentoring in a general sense as "mentors, even more than instructors and coaches, need a high level of emotional intelligence in order to use their own experience wisely in the service of the mentee" (2000, p. 257). Mentors need to embody traits of emotional intelligence when working with mentees by being empathetic, warm, and genuine. Mentors will expedite the bonding process by sharing personal stories, admitting their shortcomings, and describing ways they worked through problems. Personal sharing will break down the wall of suspicion as well as the power relationship that sometimes exists between mentor and mentees. Sharing and self-disclosure humanizes mentors in the eyes of the mentees (Megginson, 2000).

In a study of an after-school program in 1988-89 in Massachusetts, Seligson and MacPhee found that educators who connected with the students by sharing their personal lives, passions, and interests were well received by students. One student noted:

> They [the staff] don't have authority over us. It's not them and us—it's all *us.* They share what they are feeling and what's happening in their lives with us. It's nice to know that adults have feelings, too. Most adults never talk honestly about how their day went. They don't say how they feel about things. (Seligson and MacPhee 2004, p.6)

There are no basic requirements to serve as mentor. It does not require a Ph.D., a master's, or even a bachelor's degree. Mentors come from all walks of life: supervisor, parent, friend, guardian, professor, or co-worker. The main requirement is a willingness to serve, an ability to add value, and a commitment to one's own emotional intelligence, personal growth, and journey.

In a study by Schmidt, Marks, and Derrico (2004), 20 college students had a rewarding experience serving as mentors for at-risk fourth-graders in their community. These college student mentors learned very quickly that they needed to invest time and develop genuine interest in order to gain the trust and loyalty of their fourth-grader mentees. The mentors recognized that "mentees definitely teach you just as much if not more than you teach them" (p. 212).

The positive outcome of a mentoring relationship is captured through the study done by Bouquillon, Sosik, and Lee (2005) on mentoring phases. The study concluded that the level of trust between the mentors and their protégés was developed uniformly during all phases of mentoring, despite the length of interaction. This finding was encouraging since in today's fast-paced society leisure and down-time are scarce. This is both critical to understand and to acknowledge since faculty and students have limited time to invest in developing supportive mentoring relationships.

A study done by Russell (2007) at the Birmingham inner-city, co-educational, comprehensive secondary school in UK further reaffirmed the positive impact of mentoring. The students involved in the study felt that they had benefited from the mentoring program by receiving emotional support and guidance for college placement throughout the year. The study concluded that mentoring in schools should not be limited

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to helping only disruptive students but was also rather useful in providing a support system for any student who may need it.

Once a mentoring relationship has been implemented, it is critical to assess the quality of the relationship. Simply implementing a mentoring program cannot be sufficient. Continuous assessment should be part of the process. A quantitative study done by D'Abate and Eddy (2008) concluded that assessing the effectiveness of a mentoring program was essential from the view point of both the mentor and mentee and in measuring program objectives. In order for any mentoring program to be effective, its goals and outcomes must be assessed periodically, looking for areas of leverage in order to keep the mentoring program growing and effective.

It is important to realize that not all mentoring relationships are successful, nor do they produce optimal outcomes. In research by Hall and Smith (2009) on mentoring in the public accounting field, it was noted that the mentoring relationships that coached professional and career growth led to increased turnover in the organization as employees moved on to new career opportunities, which was contrary to the belief that good mentoring would "lead to desirable outcomes for the firm" (p. 699).

Faculty as Mentors in Higher Education

Educational institutions have an on-going obligation to develop students so that they become contributing members of society as well as upright and moral citizens (Mertz, 2004). The higher education realm, like that of corporate America, positions high-achieving students to find mentors (Kram, 1985). However, all students and not just high-achieving students should have an opportunity to work with a faculty mentor.

Faculty mentoring in the residence halls is not very common. In a study by Rong and Gable, 45% of faculty members had no awareness of the role they could play in student development outside the classroom (as cited in Browne, Headworth, & Saum, 2009). Informal interactions between students and faculty outside the classroom have a positive influence on the quality of the relationship between students and faculty in the residence halls (Pascarella & Terenzini, 1980), and this positive interaction was confirmed for living-learning communities as well (Longerbeam, Inkelas, & Brower, 2007).

Both formal and informal types of student-faculty pairings can have a positive effect on both the campus climate and the mentor and mentee. Formal mentoring benefits the institution, whereas informal mentoring benefits the mentee (Johannessen, 2010). Faculty mentors find their experience to be more rewarding, positive, and engaging when the contact is initiated by the mentee (McCluskey-Titus, 2005; Riebschleger & Cross, 2011). Formal mentor-mentee relationships where pairings are assigned do indeed work; however, it takes time to build a strong bond between the mentor and mentee, and trust and benefits of mentoring may not be realized until the second year (Dobie, Smith, & Robins, 2010).

Faculty on college campuses have been engaged as mentors in various roles such as instructor, advisor, advocate, faculty-in-residence, counselor, informal mentors, living-learning community members, and teachers of introductory University 101 classes in collaboration with student affairs professionals. A study by Astin (2001) indicated that student-faculty interaction had a positive correlation with student's intellectual and personal growth, behavior outcomes, career choices, and initiatives to tutor other

students. A study by Kuh et al. (2007) reaffirmed that student engagement in purposeful educational activities inside and outside the classroom affects the grades of first- and last-year students and retention of first-year students at the same institution. The positive effects of student engagement were valid for students with different racial and ethnic backgrounds. Kuh et al. (2007) also pointed out that faculty partnerships with student affairs professionals and other staff were important to learn about culture-building strategies to create learning communities in the classroom. These partnerships took into account students' preferred learning styles and created cooperative learning activities to engage with students outside the classroom. Positive research outcomes in Kuh and Astin's studies on student and faculty interaction provided validity to Tinto's position on the positive effect of faculty interaction on student's persistence:

> When those contacts also occur outside the formal domains of the institution and are seen as warm, receptive, and wide-ranging in character, that is, not restricted solely to the formalities of academic work, individuals are not only more likely to stay but also more likely to grow both intellectually and socially while staying. The faculty are key links to the intellectual life of the institution. (Tinto 1993, p. 166)

In the Chartwell's 2006 College Student Survey (as cited in Howe & Strauss, 2003), 57% of students surveyed considered the amount of time they spent with full-time faculty to be very or extremely important. Millennial students are especially attracted to living-learning communities, in which both the students and faculty live in the same residence hall and can conveniently schedule intensive group study and discussion (Howe & Strauss, 2003). The National Student Engagement Survey showed that students who live on campus are more engaged than other students, based on easy access to campus resources, which included faculty members (Kuh, 2003).

A quantitative study by Pfister (2004) studied the effect of faculty and peer mentoring on first-year student athletes and concluded that students who were mentored by faculty members had a greater sense of perceived social support than students who were mentored by peer mentors. The perceived stress level (PSL) was analyzed by using a repeated measures analysis of variance (ANOVA) since the variables were normally distributed. The survey was administered three times during the semester (beginning, middle, and end). The mentoring condition was identified as the independent variable and various stress levels were identified as the dependent variables. The researcher found no significant overall difference ($p > .05$) in stress levels due to time effect 'between student athletes grouped by Mentor Type, Gender, or Race.' There was also no significant overall difference ($p > .05$) between the perceived stress level and type of mentor (faculty-mentored and peer-mentored).

The perceived social support level (PSSF) was analyzed by using a repeated measures analysis of variance (ANOVA) since the variables were normally distributed. The PSSF was administered three times with friends and twice with mentors. The researcher found no significant overall difference ($p > .05$) between 'the perceived levels of social support from friends between student athletes grouped by Mentor Type, Gender or Race' (Pfister, 2004). The researcher also found no significant overall difference ($p > .05$) between the perceived levels of social support from friends as a time effect. The researcher did find a significant difference ($p < .001$) in the 'levels of perceived social support from mentors between student athletes mentored by faculty compared to those mentored by peers' (Pfister, 2004). The perception range varies from 0 (no support) to 40 (very high support). As outlined in Table 5, students who were mentored by faculty had a

mean score of 26.66 at mid-semester, whereas students mentored by their peers had a

mean score of 19.79. At the end of the semester, the mean score for the perceived social

support by faculty mentors rose to 27.48, and the perceived support by peer mentors rose

to 20.11. Overall, students who were mentored by faculty members had a greater sense of

perceived social support than students who were mentored by peer mentors.

Table 1

Mean Levels of Perceived Social Support by Students for Mentor Type

Mentor type	*M*	*SD*
Faculty		
Mid semester	26.66	6.48
End of semester	27.48	5.29
Peer		
Mid semester	19.79	7.28
End of semester	20.11	8.19

N = 29 mentored by faculty; N = 28 mentored by peers

The researcher also calculated the effect size, as outlined in Table 2, and it is clear that

the strongest effect size or strength of relationship is for the perceived social support

received by students from faculty at mid-semester ($D = 1$) and at the end of the semester

($D = 1.07$), which is much larger than typical.

Table 2

Effect Size for Stress and Social Support

Variable	D
Beginning semester stress survey	-.32
Mid-semester stress survey	.06
End of semester stress survey	-.19
Beginning semester social support survey from friends	.08
Mid-semester social support survey from friends	.20
End of semester social support survey from friends	.07
Mid-semester social support survey from faculty	1.00
End of semester social support survey from faculty	1.07

Another quantitative study by Nolan (2005) studied first-generation students at Berea College and examined the association between the barriers to graduation and the motivating factors. The research showed the motivating factor of faculty mentoring had a positive correlation of .710 with the barrier of financial support ($p < .001$); a positive correlation of .743 with the barrier of family support ($p < .001$); a positive correlation of .742 with the barrier of academic preparation ($p < .001$); a positive correlation of .701 with the barrier of personal commitment ($p < .001$); and a positive correlation of .716 with the barrier of social support ($p < .001$).

Table 3

Spearman Correlation Matrix for Motivating Factors and Barriers

	Tutoring	Faculty	Campus involvement	Personal resilience
Financial support	.721[**]	.710[**]	.741[**]	.740[**]
Family support	.704[**]	.743[**]	.745[**]	.738[**]
Academic preparation	.740[**]	.742[**]	.735[**]	.710[**]
Personal commitment	.702[**]	.701[**]	.701[**]	.944[**]
Social support	.736[**]	.716[**]	.735[**]	.720[**]

**p < .01*

A three-year study by Garrett and Zabriskie (2004) at a comprehensive university compared academic interactions of students participating in living-learning communities versus students not participating in a living-learning community but living in the same residence hall, as well as those students living in residence halls that did not offer living-learning communities. Students who participated in living-learning communities showed higher mean responses for formal and informal academic interactions than either of the other two communities. The research also pointed out that there is a positive influence that living-learning communities have on students, regardless of whether or not they are directly involved in the living-learning community. This finding was based on residents witnessing how their peers benefited from realizing the value of mentor-like relationships with faculty.

A study by Eck, Edge, and Stephenson showed similar successes with living-learning communities where the students involved in these communities displayed

improved "student engagement within and outside the classroom" (2007, p. 7), by displaying stronger competencies in the following areas: ability to see multiple sides of issues, writing skills, meaningful class discussions, impact on alcohol consumption, college students' sexual issues, oral presentation skills, evaluating the quality of opinions and facts, and computer skills.

Obstacles to Mentoring

A stumbling block that emerged repeatedly in the research was time constraints for both the mentors and mentees. In academia, faculties are faced with time constraints revolving around competing job expectations, spoken and unspoken. A mixed methods study done by O'Brien (2008) substantiated that the reward structures for faculty of comprehensive and research institutions is similar since faculty are expected to teach, perform research and provide service activities to be considered for promotions and tenure processes. The faculty members in this study identified teaching as the activity that consumed most of their time. "The time they spent addressing the teaching function–that was, class preparation, content expertise, evaluation methods, and advising students–was something they saw as their professional priority in the use of their time" (O'Brien, 2008, p. 101). Tinto (1993), although very complimentary of student-faculty interaction, cautioned about the burden that was placed on faculty who already have academic responsibilities and choosing to become a mentor means being trained to serve as a resource for others.

Another common obstacle to successful mentoring was identified as personality differences (Ehrich, Hansford, & Tennent, 2004). Just finding a mentor can be a daunting task for students. With this in mind, the Division of Geriatric Medicine and Gerontology

at John Hopkins University piloted a 'speed dating' program where potential faculty mentors and mentees came together to learn about one another's backgrounds with the promise that these conversations could continue after the session (McNabney, Fedarko, & Durso, 2010), enabling theory to become practice (Sherrat & Chambers, 2011).

Regardless of the motive to mentor, housing professionals have to take into consideration faculty members' workloads and understand that three classes require much more than the nine hours of teaching in the form of preparing for classes, conducting research, and performing service (McCluskey-Titus, 2005). Faculty members who participated in the mentoring programs recognized not only their time constraints but that of the students as well. Faculty mentors also recognized the importance of time spent on social and educational programs to build a sense of community and realized that these engagements need to be continual (Ellett & Schmidt, 2011). When faculty members volunteer to serve as mentors, it is critical to involve them in the planning phase of hall programs and activities to help create ownership and buy-in (Jessup-Anger, Yao, & Wawrzynski, 2011).

Stewart (2008) rightfully noted that most universities, especially research universities, do not have a system in place that will significantly reward a faculty member for interacting with first-year students in a residence hall. In fact, they may discourage faculty who seek promotion and tenure since mentoring pulls them away from time they could be using for research. But in order for faculty members to truly know and mentor their students, they need to transcend the obstacle of time and get to know their mentees since:

> Excellent mentors are accessible and available. But they also need to exhibit the human skills of listening, caring, communicating openly, and

giving constructive feedback. To conclude, taking the time to truly know protégés is arguably the most important of the mentoring virtues. (Johnson and Ridley, 2008, p. 6).

Weber (2000) conducted a case study to look at the perspective of students, faculty, and administrators involved in learning communities. While enjoying their experience in the program and bonding with students, the faculty was frustrated with time constraints, scheduling and administrative issues, lack of communication with administrators, lack of funding, and no clear direction for what a learning community should be. The administrators agreed that there was great potential for the learning communities, but the goals had not been articulated to the faculty and the students involved in the program. The students noted that they were initially apprehensive about being a part of a learning community based on the notion of it being more work, more difficult, and overall much harder than living on a non-learning community floor. Their perceptions changed once they bonded with their faculty mentors. Near the end of the academic year, most if not all students unanimously agreed that they would participate in such a program again.

Mentors' Experience and their Expectations

Mentoring relationships usually have spoken and unspoken expectations that are sometimes openly shared and other times privately assumed. Through a qualitative study, Bressler (2004) provided insight about mentors and their experiences, along with expectations they have of mentees and some strategies for future mentors. The mentors in this study acknowledged that mentoring is a time-consuming commitment, hence were quite critical about non-ideal mentees. They defined non-ideal mentees as those being "not committed to the relationship, not respecting the mentor's knowledge, lacking

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insight into their own skills and limitations, and not following through on promises, and being dishonest about their needs" (p.188). In order for the mentoring relationship to be successful, the mentors in this study agreed that goal setting, expectation sharing, honest and continual feedback, and dedication of adequate time to the mentoring process were critical. The mentors in this study were also realistic in acknowledging that not all mentoring relationships were successful and that it was the mentor's responsibility to connect their mentee with another mentor if their thoughts and ideology did not match up. On the other hand, if successful, the mentor-mentee pair could continue the relationship long after graduation and in the corporate sector long-term benefits such as career and salary gains could become evident in such organizational mentoring (Lockwood, Evans & Eby, 2007).

Characteristics of a Successful Mentoring Relationship

A successful mentor is one who is able to guide a mentee, is professional, is a role model, and is selfless in placing the need of the mentee before his or her own interests (White, 2011). An empirical qualitative study identified five characteristics of exceptional mentors: admirable personal qualities and personality, being a sounding board (sometimes even throughout the student's career), making time for regular formal or informal meetings, being supportive during personal struggles or stressful situations, and cultivating mentees to become future mentors (Cho, Ramanan, & Feldman, 2011). Faculty mentors in the residence halls bring these qualities to life by organizing field trips, providing advice on various academic and non-academic topics, leading book clubs, and being available to students as they adjust to the college environment (Bonner, 2009; Ellett & Schmidt, 2011; Rhoads, 2009). This mentoring relationship is beneficial for all

students but especially critical for underrepresented students who may find themselves in a minority on the college campus. In a qualitative study, underrepresented students reaffirmed their appreciation for their faculty mentors and for being pushed to network, be creative, and try new opportunities (Griffin, Perez, Holmes, & Mayo, 2010).

In the 21st century, where information is instantly available 24/7 on the internet, critical thinking and life skills need to be stressed and developed (Marques, 2011). White (2011) recommended faculty mentors assist their student mentees in developing problem-solving skills, branching outside their comfort zone, addressing unfamiliar situations, and exploring further self-discovery by guiding versus doing it for them. A longitudinal qualitative study confirmed that mentees identified a successful mentorship relationship as one where the mentor would listen, advocate, and express confidence in the ability of the mentee to be successful (Balmer, D'Alessandro, Risko, & Gusic, 2011). In order for the mentor-mentee relationship to be successful, the mentee must be willing to accept a level of ownership as well as a level of risk.

Benefits of a Mentoring Relationship to Faculty Members

Faculty mentors are experts in their field of study but can have doubts about their role and ability as a mentor to intervene and provide advice to students in crises. Mentors may also be unsure of whether or not they are doing enough when it comes to spending quality time with students or giving advice and direction (Dobie, et al., 2010). One-to-one interactions and planning programs for students in residence halls are unfamiliar phenomena for faculty mentors. Therefore, it is essential not to allow initial lack of attendance at programs disappoint or scare away faculty. Residence hall faculty mentors also undertake a certain level of personal risk by agreeing to serve as mentors since they

have not been trained for this role in academia (Browne, et al., 2009). There is also apprehension surrounding closure of the relationship. Building a trusting relationship takes time and commitment. When a mentor-mentee relationship ends, it generates feelings of loss and creates a void which is difficult to share with others (Jones & Reis, 2010; Riebschleger & Cross, 2011). There is an unspoken expectation that faculty mentors should be elated when their student mentees succeed and move on. There is certainly truth in that all mentors desire their mentees to be successful. However, this phase comes with mixed feelings as the mentee moves on to a new chapter of life and the relationship becomes more collegial and involves less interaction and contact.

While the faculty mentors are aware of these risks, they also understand that the 'intergenerational transfer of knowledge' is just as satisfying, if not more so, than the mentor-mentee relationships. The pride in student success compensates for the sense of loss felt when the relationship is no longer defined as it was when first developed (Riebschleger & Cross, 2011). Faculty members who have engaged in mentoring roles in the residence halls have founds students to be relaxed and more engaged in intellectual discussions and activities outside the classroom than within the classroom (Fitzpatrick, 2011; Terenzini, Pascarella, & Blimling, 1996).

At research institutions where faculty member mentored students, a mixed study (Potter, Abrams, Townson, & Williams, 2009) found that faculty members were motivated by students to do research ($p < .05$). The results of the study varied by faculty rank, where 80% of full professors indicated the highest level of motivation followed by 49% of associate professors and 47% of assistant professors. Of the faculty mentors studies, 84% also indicated that mentoring did not reduce their time spent on research (p

< .05). This result varied by gender where 70% of male faculty mentors indicated that mentoring did not hinder their time towards research whereas only 42% of female faculty mentors agreed with the statement. In order for faculty members to seek out these relationships and invest time and energy, they obviously need to find a level of personal satisfaction. Indeed, 71% of faculty mentors indicated that they learned from their students during the process of mentoring ($p < .05$). The results regarding learning from students varied by gender, with 93% of female faculty mentors indicating that they learned from their students in contrast to 82% of male faculty mentors.

In a qualitative study that matched faculty mentor and student responses about mentoring, students felt that it had positively affected their cognitive and communication skills. In turn, faculty mentors felt that they had communicated the importance of being persistent and made themselves available to the students (Behar-Horenstein, Roberts, & Dix, 2010). During their mentoring experience in the residence halls, faculty mentors were also pleasantly surprised to find that students have deep respect for faculty members and cherish the out-of-classroom interactions (Rhoads, 2009).

In order to make mentoring students a priority, faculty mentors should be rewarded by including this activity in their appraisals and getting direct feedback from students (National Academy of Sciences, 1997). Housing programs can provide small incentives that are meaningful to faculty members, such as meals in the residence halls (McCluskey-Titus, 2005), which will also assist faculty members in easing into a surrounding that is unfamiliar to them.

Effects of Culture and Gender on Mentoring Relationships

Another factor weighing in on the success of the mentoring relationship was the mentor's and mentee's cultural and gender identities. As the student demographic continues to become more diverse and the emphasis on preparing students for a global economy grows, there should be an expectation that a mentor's cross-cultural competency and sensitivity is high. In a cross-cultural faculty mentoring study by Crutcher (2007), the faculty members reaffirmed that fostering trust in same-race mentoring was perceived to be easier since it was assumed that the mentee would have a similar world view as the mentor. Crutcher rightfully pointed out that, as the student demographic becomes more diverse, the same cannot be said of faculty and staff ranks. There is a clear lack of faculty and staff of color in higher education, especially in the senior administrative ranks of academe.

This lack of diversity necessitates that faculty mentors develop a high level of cross-cultural competencies that will equip them with tools to work with majority and non-majority students. Crutcher (2007) identified the following abilities that will assist in cross-cultural mentoring: selflessness, active listening skills, honesty, a nonjudgmental attitude, persistence, patience, and an appreciation for diversity. Johnson-Bailey and Cervero (2004) suggested that, for effective cross-cultural mentoring to take place, it was important for the mentor to see their mentee as an individual and not a category. Equally important was the responsibility of the mentee to see the mentor as an individual and not as a category or a representative of the larger society or an inherent part of the system.

Mentoring as an Experiential Learning Process

There is an abundance of literature in the area of mentoring that includes varied definitions of mentoring, research on the benefits of mentoring, and suggestions for

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improvement and success by seasoned mentors and mentees. As discussed earlier, with the changing demographics in the student population, one mentoring style does not fit all mentoring relationships (Lunsford, 2011; White, 2011). The mentoring process lends itself to flexible approaches as it provides one-to-one interaction, resulting in creating extra-curricular intellectual opportunities to understand and appreciate each other's background and history (Kezar, Gallant, & Lester, 2011).

The argument can be made that mentoring is a form of experiential learning that directly and indirectly helps the mentor and mentee understand each other in an in-depth way, which is not possible in other types of relationships (White, 2011). The experiential form of the mentoring process does not adhere to a set structure of narrow procedures, or a one-way, or right way of thinking, but rather mentoring allows the diversity of difference inherent in each mentor-mentee pair and group to define the learning environment and evolution of each mentee-mentor relationship.

Experiential Learning: Definition and History

The National Society for Experiential Education (NSEE) describes experiential education as "inductive, beginning with raw experience that is processed through an intentional learning format and transformed into working, useable knowledge" (www.nsee.org). Roots of experiential learning can be found in the phenomenological approach of Dewey (1926), who introduced the importance of experience in education. Dewey was critical of the educational system that placed great emphasis on acquiring knowledge but little emphasis on having a fruitful experience. Dewey also emphasized the importance of reflection in experience and explained most human experience is a result of trial and error. According to Dewey, reflective experience comes into play when

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complete answers are not available, which leads to anticipation of the outcome and, upon

careful surveillance of all available options and testing each problem with various

solutions. This process of testing was defined as reflective experience (Dewey, 1926).

Chickering (1977) compared the goals of experiential learning to be similar to that

of good teaching where "there are complex questions concerning purpose, substance, and

quality; concerning student's abilities and differences; concerning the contribution and

sequence of various learning activities; concerning evaluation and certification" (p. 12).

Chickering raised an excellent question when he asked:

> When those activities include significant encounters with persons of different
> race, economic class, or social background, through counseling, teaching,
> interviewing, volunteer activities, or shares work–who can say what outcomes
> may result? How can either a student or a teacher anticipate what may happen
> when a concerned person observes, close up, the gaps between the espoused
> theories…and its actual practices and effects…and the gap? (1977, p. 43)

Kolb (1984) defined experiential learning as "not a molecular educational concept

but rather as a molar concept describing the central process of human adaptation to the

social and physical environment" (p. 31). Kolb also introduced a learning style model

that had four adaptive learning modes: concrete experience, reflective observation,

abstract conceptualization, and active experimentation. Kolb argued that knowledge was

"created through the transformation of experience" (p. 38). Based on how it was grasped

and transformed, knowledge could be further categorized as accommodative, divergent,

active, or assimilative. Kolb's model assists in identifying learning styles for students and

preparing a challenge and support developmental environment.

McKeachie (2002) took the concept of experiential learning in the direction of

service learning and hoped that the experiences in the field would "stir up questions in

students' minds that would lead to active learning" (p. 246). McKeachie saw the outcome

of experiential learning as being the impetus for students being able to make their current

learning transferrable to future situations. McKeachie also discussed the motivation for

faculty to engage in experiential learning since the faculties optimistically wish the

students to retain knowledge beyond the current period and truly develop an interest in

future learning.

CHAPTER 3: METHODOLOGY

Research Design

This non-experimental comparative study was based on a quantitative approach that used a blend of two surveys to explore the relationship of faculty mentoring outside the classroom on student engagement, personal development, and learning in an experiential living environment. This was a one-time study which included an online survey and review of results via a telephone conference call with program coordinators at the three institutions. The survey design drew from the National Survey of Student Engagement (NSSE) and included additional questions to prompt feedback on the impact of faculty mentoring by student. The five constructs that captured a snapshot of the student's college engagement through NSSE were the following: practical competence, general education, personal and social development, support for student success, and reflective learning.

The three non-NSSE constructs that captured a snapshot of the student's personal development and learning through the faculty mentor survey were personal growth, effective communication, and sensitivity to diversity. The survey also allowed for an open-ended question for students to share their personal experiences as related to their participation in the faculty mentor program. Survey results were shared with the program coordinators at the three campuses to solicit their impressions and reactions. The survey

required no more than 30 to 45 minutes for completion, and the telephone conference lasted approximately 30 minutes.

A pilot study was conducted in spring 2011 to test the validity of the non-NSSE constructs. NSSE constructs were not included since the NSSE instrument is well known and has existing reliability and validity data.

The research methodology as described above allowed students to self-select and share their perceptions and stories based on their level of engagement in the faculty mentor program. The survey gathered demographic details concerning students' gender, ethnicity, class standing, area of study, and identification as a first-generation student in order to isolate and identify factors that play a role in the mentoring process. This study not only compared students who were involved in the faculty mentoring program at three institutions, but also compared critical data on the students' college experience and engagement, based on participation versus non-participation in the faculty mentoring programs. The following research questions were explored:

1) Is there a difference in student's overall score on questions related to five NSSE constructs (practical competence, general education, personal and social development, support for student success, and reflective learning) based on the opportunity to work with a faculty mentor or not?

The following hypotheses were examined and tested in this study:

a) There is a significant difference as related to self-perception of gaining *practical competence* between students who are exposed to the faculty mentor program versus those who are not.

b) There is a significant difference as related to self-perception of gaining *general education* between students who are exposed to the faculty mentor program versus those who are not.

c) There is a significant difference as related to self-perception of *personal and social development* between students who are exposed to the faculty mentor program versus those who are not.

d) There is a significant difference as related to self-perception of having *support for student success* between students who are exposed to the faculty mentor program versus those who are not.

e) There is a significant difference as related to self-perception of engaging in *reflective learning* between students who are exposed to the faculty mentor program versus those who are not.

2) What are the associations among the five variables of practical competence, general education, personal and social development, support for student success, and reflective learning?

3) Is there a difference in a student's overall score on three constructs related to the faculty mentor program: personal growth, effective communication, and sensitivity to diversity at the university based on school demographic, ethnicity, gender, class standing, area of study, student organization membership, and first-generation status?

4) Is there an interaction between region, gender, and ethnicity in regards to the eight constructs?

5) What are the associations among the three variables of personal growth, effective communication, and sensitivity to diversity?

6) Do students see value in outside the classroom interaction with faculty members?

The following directional hypotheses were also examined in this study:

a) Students who are exposed to the faculty mentor program through the residence halls will have a higher recommendation to other students to get to know faculty members outside the classroom.

b) Students who are exposed to the faculty mentor program through the residence halls will score higher on the perception that faculty interaction outside the classroom is beneficial and important to their overall growth and maturity as individuals.

Research Sites

The research sites were three public institutions of higher education in Illinois, California, and Texas. Each of these three institutions house at least 60% of its first-year students, hence the potential for a faculty mentoring program to positively impact this population's transition from high school to college. The institution selected in Illinois was a large public research institution that places emphasis on undergraduate teaching; the institution in California was a mid-size teaching-focused institution, and the institution in Texas was a large public institution that places its emphasis on research. The faculty mentor program at the institution in Illinois was implemented over 15 years ago, and its framework was duplicated by the institutions in California and Texas.

Population and Sample

The theoretical population of students who lived on-campus at the Illinois campus was 5400, California was 2200, and Texas was 7400. For the purpose of this study, data were collected from a random sample of approximately 1500 students at each of the campuses. Of these approximately students 750 had a faculty mentor and 750 did not. In all, approximately 4500 surveys were administered. The overall survey completion rate was 8%.

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Instruments

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The survey instrument included sections II, III, and IV from the NSSE instrument which consisted of 29 questions. Thirty non-NSSE questions were developed by researcher based on prior experience of working with faculty mentoring programs. Both sets of questions were merged into one instrument and noted in appendix A.

NSSE

The National Survey of Student Engagement (NSSE) is a national college survey that has gathered information on collegiate quality since 1999. Through its student survey, NSSE collects information on

> …hundreds of four-year colleges and universities about student participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college (NSSE, 2011).

Reliability of this instrument has been estimated using Cronbach's alpha as noted in Table 4 with internal consistencies ranging from .82 to .83 for Practical Competence, .83 to .85 for General Education, .87 to .88 for Personal and Social Development, .78 for

Support for Student Success, and .80 to .81 for Reflective Learning (NSSE website, 2011). The questions were grouped within the following five NSSE constructs:

Practical competence: Looked at questions related to ability to solve real-world problems, analyze quantitative problems, use computer and information technology, and acquire job- or work-related knowledge and skills.

Personal and social development: Looked at questions related to engagement with local and national elections, contributions to the welfare of the community, understanding of personal values and ethics, and development of a deepened sense of spirituality.

Support for student success: Looked at questions related to engagement with campus events, contact with students from different economic, social, and racial or ethnic background, and having knowledge of academic and non-academic support agencies at the institution.

Reflective learning: Looked at questions related to personal strengths and weaknesses on a topic or issue, understanding others' perspectives, and learning something that changed the way they understand an issue or concept.

General education: Looked at questions related to the ability to write, speak, and think clearly and effectively, participate in activities to enhance their spirituality, and participate in fitness activities.

A pilot study was conducted in spring 2011 and the NSSE questions were not used in the pilot study since the NSSE instrument is well known and has existing reliability and validity data. A factorial analysis was conducted of the NSSE items during the actual study and even though some variables did not load as outlined by NSSE; no adjustments were made since it is a national survey.

Table 4

Cronbach's Alpha for NSSE Items

Items Measured	Cronbach's Alpha 2010	Cronbach's Alpha 2009	Cronbach's Alpha 2008
Practical Competence (acquiring job or work related knowledge and skill, working effectively with others, using computing and information technology, analyzing quantitative programs, and solving complex real-world problems)	.83 (1st Year) .82 (Senior)	.83 (1st Year) .82 (Senior)	.83 (1st Year) .82 (Senior)
General Education (writing clearly and effectively, speaking clearly and effectively, acquiring a broad general education, and thinking critically and analytically)	.84 (1st Year) .84 (Senior)	.83 (1st Year) .84 (Senior)	.84 (1st Year) .85 (Senior)
Personal and Social Development (developing a personal code of values and ethics, understanding yourself, understanding people of other racial and ethnic backgrounds, voting in local, state or national elections, learning effectively on your own, contributing to the welfare of your community, and developing a deepened sense of spirituality)	.87 (1st Year) .88 (Senior)	.88 (1st Year) .88 (Senior)	.88 (1st Year) .88 (Senior)
Support for Student Success (providing the support you need to help you succeed academically, helping you cope with your non-academic responsibilities, and providing the support you need to thrive socially)	.78 (1st Year) .78 (Senior)	.78 (1st Year) .78 (Senior)	.78 (1st Year) .78 (Senior)
Reflective Learning (examine the strengths and weaknesses of your own views on a topic or issue, tried to better understand someone else's view by imagining how an issue looks from his or her perspective, and learned something that changed the way you understand an issue or concept)	.80 (1st Year) .81 (Senior)	Not Available	Not Available

Non-NSSE

A pilot study was conducted in spring 2011 to test the validity of the non-NSSE

questions. The test site was the institution in Illinois, which was one of the three sites

chosen for the study. Thirty-three students participated in the pilot study. Principal axis

factor analysis with varimax rotation was conducted to assess the underlying structure for

the 22 items of the faculty mentor questionnaire. Three factors were requested, based on

the fact that the items were designed to index three constructs: personal growth, effective

communication, and sensitivity to diversity. After rotation, the first factor accounted for

28.55% of the variance, the second factor accounted for 25.04%, and the third factor

accounted for 23.42%. The factor analysis provided validity that only 18 of the 22

variables fit within the three constructs. The first three factors accounted for 77% of the

variance. There were four items that did not fit the three constructs and were accounted as

individual variables and not included in the three constructs. A factorial analysis was

conducted of the non-NSSE items during the actual study and only one item did not load

as expected.

The following questions were grouped within the three non-NSSE constructs:

Personal growth: Looked at questions related to self-esteem, confidence, creativity,

intellectual curiosity, and improving interpersonal skills.

Effective communication: Looked at questions related to the ability to balance social

and academic obligations, understand teamwork, become involved in campus activities,

and approach other faculty members.

Sensitivity to diversity: Looked at questions related to the ability to understand others and empathize, appreciate differences, and gain a better understanding of personal values and attitudes.

The pilot study assisted in validating the non-NSSE survey questions and further assisted in grouping the items in three constructs through a factorial analysis as shown in Table 5.

Table 5

Factorial Analysis Matrix for non-NSSE Survey Questions

Item	Factor	Loading	
	1	2	3
Personal growth			
Increasing self-esteem and confidence	.82		
Better understanding of personal strengths and talents	.72		
Improving interpersonal skills	.71		
Increasing knowledge about self and ability to get things done	.79		
Stimulating intellectual curiosity	.71		
Encouraging to be reflective	.68		
Enabling to solve problems more effectively	.75		
Connecting to campus	.64		
Effective communication			
Learning to balance social activities with academic obligations		.76	
Enabling to apply knowledge from courses to real world		.72	
Increasing comfort levels to approach other faculty members		.74	
Helping acquire knowledge and skills useful to major/career		.65	
Becoming involved with additional campus activities		.78	
Understanding teamwork strategies		.57	
Sensitivity to diversity			
Increasing understanding of others			.79
Increasing empathy for people whose background is different			.48
Gaining a better understanding of personal values and attitudes			.82
Appreciating differences			.56
Items that did not fit			
*Tapping creativity		.67*	
*Connecting to other students			.62*
*Increasing satisfaction with collegiate experience			.83*
*Beneficial to overall growth and maturity			63*

*Did not fit the three constructs.

Open Ended Student Feedback

The survey solicited feedback on the faculty mentor program and asked students their self-perception of how the program had contributed to their personal growth and experiential learning. The survey also asked for candid feedback based on students' experiences and queried whether "they would recommend other residents get to know a faculty person outside of the classroom."

Data Collection

The on-campus housing office at the three study institutions randomly selected students from the housing roster who were eligible to take this survey (approximately 750 who have a faculty mentor and 750 who do not) and sent an e-mail to the residents on behalf of the researcher. The e-mail contained an invitation to complete the online through CampusLabs, which is an online survey company. Students received a link to the online survey and read the informed consent before starting the survey. In total, approximately 4500 web-based surveys were distributed via e-mail to college students who lived in the residence halls at the three public institutions in November 2011. Approximately 1500 surveys were administered at each institution, which was further broken down to approximately 750 students who had a faculty mentor and 750 who did not. The responses to the surveys were anonymous however; students were advised that they could place their e-mail address in a drawing for a $25 gift card of Starbucks. Four $25 gift cards were offered to each research site as an incentive to complete the survey.

Data Types

The NSSE survey questions were completed by all students, and data were analyzed as a comparative study between students who had a faculty mentor versus

students who did not. This comparative data explored the engagement level of college students based on their participation in the faculty mentor program through the residence halls. The NSSE constructs also explored the support students received by the institution in academic and non-academic growth areas. NSSE constructs answered research questions one and explored the impact of the opportunity to work with a faculty mentor or not on student engagement; research question two looked at the association among the five constructs; research question four explored the relationship between the NSSE constructs, demographic data, and the impact of the opportunity to work with a faculty mentor or not; and research question six explored if students who have the opportunity to work with a faculty mentor or not answer differently on the value they see in the interaction with and getting to know a faculty member.

The general faculty mentor questions or non-NSSE questions were completed only by students who had a faculty mentor through their residence hall or academic programs. The questions aimed to understand if students' personal development and learning was impacted as a result of their involvement in the programs. The three constructs examined were personal growth, effective communication, and sensitivity to diversity. Non-NSSE constructs answered research questions three and explored the impact of the opportunity to work with a faculty mentor or not on student development and learning; research question four explored the relationship between the non-NSSE constructs, demographic data, and the impact of the opportunity to work with a faculty mentor or not; research question five looked at the association among the three constructs; and research question six explored if students who have the opportunity to

work with a faculty mentor or not answer differently on the value they see in the interaction with and getting to know a faculty member.

Demographic Questions

A wide range of demographic data was collected to assist in isolating factors that might skew the results but could also further explain unusual trends. The following demographic data were collected from all students:

- Gender

- Ethnicity

- Class standing

- Area of study

- Member of at least one student club or organization

- First-generation status

<center>**Statistical Analysis**</center>

This non-experimental comparative study focused on comparison between groups that were involved in faculty mentor programs and those that were not, as related to the eight constructs. Research also included descriptive, associational, and interaction questions. SPSS version 19 was used for the data entry and analysis. Table 6 outlines the statistical methods used for the research questions.

Table 6

Statistical Methods Used for Research Questions

Research Questions	Statistical Method
1) Is there a difference in student's overall score on NSSE's five constructs: practical competence, general education, personal and social development, support for student success, and reflective learning based on the opportunity to work with a faculty mentor or not?	Descriptive statistics used for the five NSSE constructs. Independent t-tests were performed to compare the faculty mentor and non-faculty mentor groups.
2) What are the associations among the five variables: practical competence, general education, personal and social development, support for student success, and reflective learning?	Correlations were performed and matrixes displayed.
3) Is there a difference in student's overall score on three constructs related to faculty mentor program: personal growth, effective communication, and sensitivity to diversity at the university based on region, ethnicity, gender, area of study, student organization membership, and first generation status?	Descriptive statistics used for the three faculty mentor program non-NSSE constructs. Analyses of Variance (ANOVA) were conducted to compare several means. Independent t-tests were performed to compare student organization membership and self-identification as first generation. Post hoc tests (Bonferroni) were conducted to look for patterns.
4) Is there an interaction between region and gender and ethnicity and gender in regard to the eight constructs?	Two-Way Factorial ANOVAs were conducted to compare two independent variables.
5) What are the associations among the three variables: personal growth, effective communication, and sensitivity to diversity?	Correlations were performed and matrixes displayed.
6) Do students see value in outside the classroom interaction with faculty	Independent t-tests were performed to compare questions 6a and 6b with faculty mentor and non-faculty

members?	
a. Interacting with faculty outside of the classroom is beneficial to my overall growth and maturity as an individual. b. I would recommend other residents get to know a faculty person outside the classroom.	mentor groups.

Ethical Consideration

This study included questions from National Survey of Student Engagement (NSSE) and additional questions that drew feedback on the impact of faculty mentoring on student engagement. Sections II, III, and IV of the NSSE Survey were used with permission from The College Student Report, National Survey of Student Engagement, Copyright 2001-12, The Trustees of Indiana University.

Research findings were share with the program coordinator and a conference call was scheduled to discuss their reactions. The conference call with the program coordinators at the three institutions allowed the researcher to share the findings of the survey and capture their reaction and additional stories based on their observations. The program coordinators also provided recommendations based on their first-hand experience of working with the program. The conference calls were not taped and their comments were aggregated to allow for anonymity. The following guiding questions were used to provide further insight into the research findings:

    a) What impact do you hope the faculty mentor program will make on the students?

b) Do you feel the findings are representative of the experience you hope your faculty mentor program will achieve? If yes or no, please explain.

c) Based on the results, do you have recommendations for any institution that may want to implement a faculty mentor program?

CHAPTER 4: RESULTS

This study explored the relationship of faculty mentoring outside the classroom on and student engagement (NSSE constructs), personal development (non NSSE constructs), and learning (non NSSE constructs) in an experiential learning environment of the residence halls. The research design utilized a large number of questions taken from the National Survey of Student Engagement (NSSE), along with additional questions supplied by the researcher in order to solicit student and faculty feedback on the impact of faculty mentoring on personal development and learning. The theoretical population for this study included students living in an on-campus residence hall (i.e. residents) that offered a faculty mentoring program. The survey population involved one public institution in each of the following states: Illinois, California, and Texas. The actual sample included 163 participants from California, 56 from Illinois, and 145 from Texas. The total number of students participants involved in the study was 364 and four faculty mentor program coordinators shared their insight through phone interviews after they reviewed the research findings. The comments from the program coordinators are embedded in chapter 5.

Demographics

The Housing and Residential Life office at each of the selected institutions in California, Illinois, and Texas administered the survey to 1500 of their residents. Of the 364 participants, 23.9% ($n = 87$) were male, 75.3% ($n = 274$) were female, and .8% (n =

3) chose not to respond. The majority of the students were freshmen (67%) followed by

sophomores (17%), juniors (10%), and seniors (5%) while three chose not to respond

(1%). First generation status constituted 23% of the respondents, and 76% were involved

in at least one club or student organization. Student ethnicity self-identification included

57% White, 17% Asian/Pacific Islander, 14% Black/African American, 13%

Latino/Hispanic, and 4.7% Multiracial, as noted in Table 7.

Table 7

Percentage Breakdown for Ethnicity

Ethnicity	N	Percentage
Asian/Pacific Islander	62	17
Black/African American	16	14.4
Latino(a)/Hispanic	48	13.2
Middle Eastern	2	.5
Indigenous/Native American	1	.3
White	208	57.1
Multiracial	17	4.7
I prefer not to respond to this questions	7	1.9
Blank	3	.8
Total	364	100

Factorial Analysis for NSSE Survey Items

Principal axis factor analysis with varimax rotation was conducted to assess the

underlying structure of the 29 items of the NSSE survey. Five factors were designed to

index five constructs: personal and social development, support for student success,

practical competence, general education, and reflective learning. The Kaiser-Meyer-

Olkin (KMO) measure was .907, and the Bartlett test was significant (sig. < .001), thus

providing a reasonable foundation for factorial analysis based on the variables being

highly correlated. After rotation, the first factor accounted for 13.77% of the variance, the

second factor accounted for 12.64%, the third factor accounted for 12.23%, the fourth

factor accounted for 8.59%, and the fifth factor accounted for 7.9%. Table 8 displays the

items and factor loading for the rotated factors. Results of the factor analysis provided

validity that only 21 of the 29 variables fit within the five constructs. Of the variance

55%was accounted for by the first five factors.

Factorial Analysis for non-NSSE Items

Principal axis factor analysis with varimax rotation was conducted to assess the

underlying structure for the 21 items of the non-NSSE survey. Three factors were

designed to index three constructs: personal growth, effective communication, and

sensitivity to diversity. The Kaiser-Meyer-Olkin (KMO) measure was .971 and the

Bartlett test was significant (sig. < .001) thus provide a reasonable basis for factorial

analysis based on the variables being highly correlated. After rotation, the first factor

accounted for 85.32% of the variance, the second factor accounted for 2.50%, and the

third factor accounted for 1.56%. Table 9 displays the items and factor loading for the

rotated factors. Results of the factor analysis provided validity that only 20 of the 21

variables fit within the three constructs. Of the variance, 89% was accounted for by the

first three factors. Item 'Increasing empathy for people whose background is different'

loaded on factor one at .770 and factor three at .388. The researcher made the decision to

leave the item under factor three since it seemed logical to place it under sensitivity to

diversity.

Table 8
Factorial Analysis Matrix for NSSE Survey Question

Item	Factor	Loading			
	1	2	3	4	5
Personal and Social Development					
Voting in local, state, or national elections	.520				
Contributing to the welfare of your community	.481				
Understanding people of other racial and ethnic backgrounds	.711				
Developing a personal code of values and ethics	.637				
Understanding yourself	.648		.404		
Learning effectively on your own	.487				
Developing a deepened sense of spirituality*				.619	
Support for Student Success					
Providing the support to help succeed academically		.690			
Helping you cope with your non-academic responsibilities		.723			
Providing the support you need to thrive socially		.742			
Attending campus events and activities		.695			
Encourage contact among students from different economic, social, and racial or ethnic backgrounds		.648			
Practical Competence					
Solving complex real-world problems*	.497				.419
Analyzing quantitative problems			.771		
Using computing and information technology			.737		
Acquiring job or work related knowledge & skill*	.449				
Spending significant time on study and academic work			.410		
Working effectively with others	.524		.528		
General Education					
Acquiring a broad general education*	.432				
Writing clearly and effectively*	.476		.541		
Speaking clearly and effectively*			.625		
Thinking critically and analytically*			.624		
Participate in activities to enhance your spirituality				.844	
Attend an art exhibit, play, music, or other performance				.524	
Exercise or participated in fitness activities					
Reflective Learning					
Examine the strengths and weaknesses of your own views on a topic or issue					.697
Tried to better understand someone else's view by imagining how an issue looks from his or her perspective					.726
Learned something that changed the way you understand an issue or concept					.555
Using computer in academic work					.421

*Did not fit the constructs.

Table 9

Factorial Analysis Matrix for non-NSSE Survey Questions

Item	Factor	Loading	
	1	2	3
Personal Growth			
Increasing self-esteem and confidence	.765		
Better understanding of personal strengths and talents	.680		
Improving interpersonal skills	.733		
Increasing knowledge about self and ability to get things done	.747		
Stimulating intellectual curiosity	.671		
Encouraging to be reflective	.655		
Enabling to solve problems more effectively	.723		
Connecting to campus	.460		
Tapping creativity	.608		
Effective Communication			
Learning to balance social activities with academic obligations		.700	
Enabling to apply knowledge from courses to real world		.625	
Increasing comfort levels to approach other faculty members		.634	
Helping acquire knowledge and skills useful to major/career		.750	
Becoming involved with additional campus activities		.747	
Understanding teamwork strategies		.698	
Connecting to other students		.734	
Increasing satisfaction with collegiate experience		.658	
Sensitivity to Diversity			
Increasing understanding of others			.678
Increasing empathy for people whose background is different*	.770		.388
Gaining a better understanding of personal values and attitudes			.665
Appreciating differences			.655

*Did not fit the constructs.

Examination of Research Questions

Difference between Student and Faculty Pairings for NSSE Constructs

The first research question explored the differences among the three groups: students who had a faculty mentor through the residence halls, students who had a faculty mentor through their academic program, and students who did not have a faculty mentor as related to the five NSSE constructs, based on the following questions.

1. Are there differences among the three groups (students who have a faculty mentor through the residence halls, students who have a faculty mentor through their academic program, and students who do not have a faculty mentor) on NSSE constructs: personal and social development, support for student success, practical competence, general education, and reflective learning?

ANOVA was conducted for the independent variable faculty mentor pairings with three levels: students who had a faculty mentor through living in the residence halls, students who had a faculty mentor through their academic program and lived in the residence halls, and students who did not have a faculty mentor and lived in the residence halls. A statistically significant difference was found among three of the NSSE constructs: personal and social development, $F (2, 305) = 8, p < .001$, support for student success, $F (2, 311) = 4.39, p = .013$, and reflective learning, $F (2, 316) = 3.61, p = .028$. Table 10a shows that the mean scores for students living in a residence hall with a faculty mentor and those who had a faculty mentor through their academic program had a higher mean score than students who did not have a faculty mentor. Post hoc Bonferroni in Table 10b indicated that the students living in a residence hall with a faculty mentor and

students without a faculty mentor differed significantly in their scores for the personal

and social development construct ($p < .01$, $D = .52$). Post hoc Bonferroni indicated that

the students that had a faculty mentor through their academic program and students

without a faculty mentor differed significantly in their scores for the support for student

success construct ($p < .05$, $D = .52$). Post hoc Bonferroni also indicated that the students

living in a residence hall with a faculty mentor and students without a faculty mentor

differed significantly in their scores for the reflective learning construct ($p < .05$, $D =$

.33).

Table 10a

Means and Standard Deviations Comparing Student and Faculty Mentor Pairings

FM Status	n	Personal and social dev.		Support for student success		Reflective learning	
		M	*SD*	*M*	*SD*	*M*	*SD*
Res. Hall FM	172	3.02	.64	3.12	.68	3.23	.57
Academic FM	47	2.86	.62	3.27	.54	3.23	.60
No FM	89	2.68	.66	2.93	.74	3.03	.64
Total	308	2.90	.66	3.09	.68	3.17	.60

Generally speaking, the results appearing in Table 10a and 10b showcase

mentoring programs in a favorable light. Regardless of whether students were assigned a

faculty mentor while living in the residence halls or through their academic program,

both groups scored significantly higher than their peers who did not have or work with a

faculty mentor.

Table 10b

Analysis of Variance Summary Table Comparing Student and Faculty Mentor Pairing on Personal and Social Development, Support for Student Success, and Reflective Learning

Source	df	SS	MS	F	p
Personal and social dev.					
Between groups	2	6.67	3.34	8	<.001
Within groups	305	127.14	.42		
Total	307	133.81			
Support for student success					
Between groups	2	4	2	4.39	.013
Within groups	311	141.74	.46		
Total	313	145.75			
Reflective learning					
Between groups	2	2.58	1.29	3.61	.028
Within groups	316	113.05	.36		
Total	318	115.63			

Impact of Faculty Mentoring and Generation of Study on the Constructs

A 2 X 2 Factorial ANOVA was conducted to consider research question two to see the effect of faculty mentoring on first generation students, based upon the following question:

2. Does student and faculty mentor pairing along with being first generation student have an effect on sensitivity to diversity, effective communication, personal growth, personal and social development, practical competence, general education, support for student success, and reflective learning constructs? And do the independent variables interact?

Table 11a shows the means and standard deviations for sensitivity to diversity, effective communication, personal growth, personal and social development, and practical competence constructs for student and faculty mentor pairing and first-

generation groups. Table 11b shows that there was a significant main effect of generation on the sensitivity to diversity construct, $F(1, 190) = 6.33$, $p < .05$. Eta for generation was .19, a small effect. There was also a significant main effect of generation on the effective communication construct, $F(1, 192) = 4.83$, $p < .05$, and student and faculty mentor pairing on the effective communication construct, $F(1, 192) = 6.37$, $p < .05$. Eta for generation was .16, and eta for student and faculty mentor paring was .18, which are both small effects. There was a significant main effect of generation on the personal growth construct, $F(1, 190) = 6.28$, $p < .05$, and student and faculty mentor paring on the personal growth construct, $F(1, 190) = 4.14$, $p < .05$. Eta for generation was .18, and eta for student and faculty mentor paring was .14, which are both small effects.

Table 11a

Means, Standard Deviations, and n for Sensitivity to Diversity, Effective Communication, Personal Growth, Personal and Social Development, Practical Competence, General Education, and Reflective Learning as a Function of Student and Faculty Mentor Pairing (Residence Hall or not) and Generation

	First	Gen.		Not	First	Gen		Total	
	n	*M*	*SD*	*n*	*M*	*SD*	*M*	*SD*	
Sensitivity to diversity									
RH faculty mentor	38	3.09	.98	114	2.77	.96	2.85	.97	
No RH faculty mentor	6	2.92	1.07	36	2.04	1.05	2.17	1.09	
Total	44	3.06	.98	150	2.60	1.03	2.70	1.04	
Effective communication									
RH faculty mentor	39	3.12	.94	116	2.79	.96	2.87	.96	
No RH faculty mentor	7	2.71	.91	34	2.07	1.07	2.18	1.06	
Total	46	3.06	.94	150	2.63	1.03	2.73	1.02	
Personal growth									
RH faculty mentor	38	3.12	.97	114	2.74	.78	2.83	.99	
No RH faculty mentor	7	2.84	.76	35	2.11	1.01	2.23	1	
Total	45	3.08	.94	149	2.59	1.01	2.7	1.02	
Personal and social dev.									
RH faculty mentor	43	3.16	.60	129	2.97	.65	3.02	.64	
No RH faculty mentor	23	2.81	.63	113	2.73	.66	2.74	.65	
Total	66	3.04	.63	242	2.86	.67	2.90	.66	
Practical competence									
RH faculty mentor	45	3.40	.48	128	3.02	.63	3.12	.62	
No RH faculty mentor	22	2.78	.57	115	3.05	.60	3.00	.61	
Total	67	3.19	.59	243	3.03	.62	3.07	.61	
General education									
RH faculty mentor	43	3.10	.49	131	2.87	.58	2.93	.56	
No RH faculty mentor	22	2.75	.50	11	2.80	.53	2.79	.53	
Total	65	2.98	.52	245	2.84	.56	2.87	.55	
Reflective learning									
RH faculty mentor	45	3.39	.50	132	3.17	.59	3.23	.57	
No RH faculty mentor	24	3.06	.62	118	3.10	.64	3.10	.63	
Total	69	3.28	.56	250	3.14	.61	3.17	.60	

Table 11b

Analysis of Variance for Sensitivity to Diversity, Effective Communication, Personal Growth, Personal and Social Development, Practical Competence, General Education, and Reflective Learning as a Function of Student and Faculty Mentor Pairing (Residence Hall or not) and Generation

Variable and source	df	MS	F	η^2
Sensitivity to diversity				
Generation	1	6.16	6.33	.032
Student and faculty pairing	1	3.52	3.62*	.019
Generation* Student and faculty pairing	1	1.37	1.41	.007
Error	190	.97		
Effective communication				
Generation	1	4.58	4.83*	.025
Student and faculty pairing	1	6.05	6.37*	.032
Generation* Student and faculty pairing	1	.46	.49	.003
Error	192	.95		
Personal growth				
Generation	1	6	6.28*	.032
Student and faculty pairing	1	3.96	4.14*	.021
Generation* Student and faculty pairing	1	.58	.610	.003
Error	190	.96		
Personal and social development				
Generation	1	.83	1.98	.006
Student and faculty pairing	1	4.21	10.09*	.032
Generation* Student and faculty pairing	1	.15	.36	.001
Error	304	.42		
Practical competence				
Generation	1	.152	.428	.001
Student and faculty pairing	1	4.09	11.47*	.036
Generation* Student and faculty pairing	1	4.95	13.89**	.043
Error	306	.36		
General education				
Generation	1	.773	.128	.004
Student and faculty pairing	1	2.13	7.20*	.023
Generation* Student and faculty pairing	1	.92	3.10	.010
Error	306	.30		
Reflective learning				
Generation	1	.43	1.19	.004
Student and faculty pairing	1	1.97	5.51*	.017
Generation* Student and faculty pairing	1	.89	2.50	.008
Error	315	.36		

*$p < .05$, ** $p < .001$

The following NSSE constructs had a significant difference as related to generation:

personal and social development, practical competence, general education, and reflective

learning. There was a significant main effect of generation on the personal and social development construct, $F(1, 304) = 10.09$, $p < .05$. Eta for generation was .18, a small effect. There was a significant main effect of student and faculty pairing on the practical competence construct, $F(1, 306) = 11.47$, $p < .05$. Eta for student and faculty pairing was .19, a small effect. There was also a significant interaction between generation and student and faculty pairing on the practical competence construct, $F(1, 306) = 13.89$, $p < .001$. Eta for generation and student and faculty pairing interaction was .21, a small effect. This interaction is best observed in Figure 2. There was a significant main effect of student and faculty pairing on the general education construct, $F(1, 306) = 7.20$, $p < .05$. Eta for student and faculty pairing was .15, a small effect. Finally, there was a significant main effect of student and faculty pairing on reflective learning construct, $F(1, 315) = 5.51$, $p < .05$. Eta for student and faculty pairing was .13, a small effect.
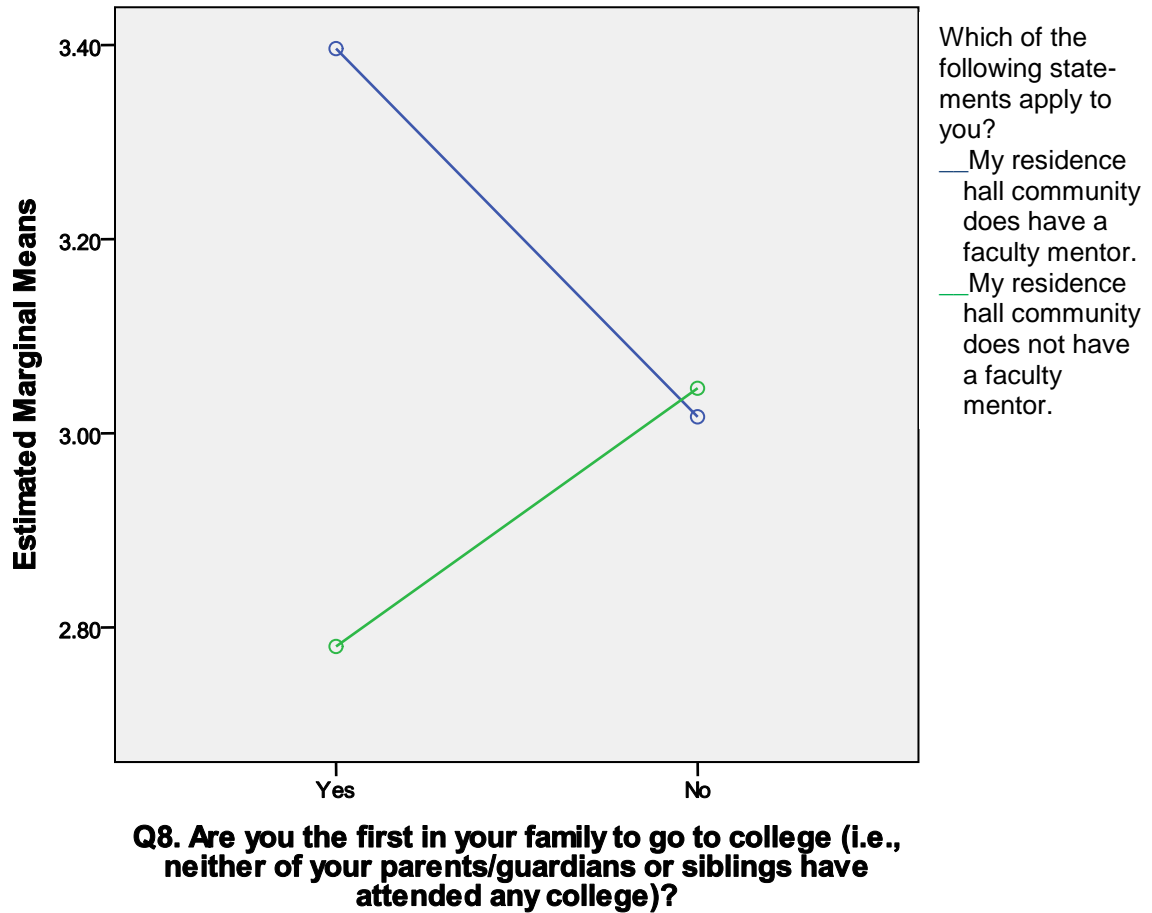
Figure 2. Estimated marginal means plot of generation of study and student and faculty mentor pairing to practical competence.

Impact of Faculty Mentoring and Students Involved in Clubs and Organizations on the Constructs

A 2 X 2 Factorial ANOVA was conducted to investigate research question three and in order to study the effect of faculty mentoring and student's involvement in clubs/organizations on the eight constructs, based on the following question:

3. Does student and faculty mentor pairing along with being involved in club/organizations have an effect on sensitivity to diversity, effective

communication, personal growth, personal and social development, practical

competence, general education, support for student success, and reflective

learning? And do the independent variables interact?

Table 12a shows the means and standard deviations for sensitivity to diversity, effective

communication, personal growth, personal and social development, general education,

and support for student success constructs for student and faculty mentor pairing, and

students involved or not involved in clubs and organizations. Table 12b shows that there

was a significant main effect of student and faculty mentor pairing on the sensitivity to

diversity construct, $F(1, 190) = 9.98$, $p < .05$. Eta for student and faculty mentor pairing

was .22, a medium effect. There was a significant main effect of student and faculty

mentor pairing on the effective communication construct, $F(1, 192) = 14.55$, $p < .001$.

Eta for student and faculty mentor pairing was .26, a medium effect. There was also a

significant main effect of student and faculty mentor pairing on the personal growth

construct, $F(1, 190) = 8.5$, $p < .05$. Eta for student and faculty mentor pairing was .21, a

medium effect.

The following NSSE constructs had a significant difference as related to student

involvement: personal and social development, practical competence, general education,

and reflective learning. There was a significant main effect of student and faculty mentor

pairing on the personal and social development construct, $F(1, 302) = 9.95$, $p < .05$ and

involvement on the personal and social development construct, $F(1, 302) = 3.90$, $p < .05$.

Eta for student and faculty mentor pairing was .19, and eta for involvement was .11, a

small effect. There was a significant main effect of student involvement on the support

for student success construct, $F(1, 308) = 7.92$, $p < .05$. Eta for student involvement was

.16, a small effect. In addition, there was a significant main effect of student involvement

on the general education construct, F (1, 305) = 8.80, $p < .05$. Eta for student

involvement was .17, a small effect.

Table 12a

*Means, Standard Deviations, and n for Sensitivity to Diversity, Effective Communication,
Personal Growth, Personal and Social Development, Support for Student Success,
General Education, and Reflective Learning as a Function of Student and Faculty
Mentor Pairing (Residence Hall or not) and Involvement*

	Club	Involved		No	Club		Total	
	n	*M*	*SD*	*n*	*M*	*SD*	*M*	*SD*
Sensitivity to diversity								
RH Faculty mentor	111	2.87	.97	41	2.80	.99	2.85	.97
No RH faculty mentor	36	2.20	1.10	6	1.96	1.05	2.17	1.09
Total	147	2.70	1.04	47	2.70	1.03	2.70	1.04
Effective communication								
RH faculty mentor	113	2.88	.96	42	2.85	.99	2.87	.96
No RH faculty mentor	35	2.27	1.08	6	1.67	.80	2.18	1.06
Total	148	2.73	1.02	48	2.71	1.04	2.73	1.02
Personal growth								
RH faculty mentor	110	2.83	.99	42	2.85	1.01	2.83	.99
No RH faculty mentor	36	2.27	1.01	6	2.02	1.06	2.23	1.00
Total	146	2.69	1.02	48	2.74	1.04	2.70	1.02
Personal and social dev.								
RH faculty mentor	125	3.06	.59	46	2.89	.75	3.01	.64
No RH faculty mentor	107	2.79	.66	28	2.61	.59	2.75	.65
Total	232	2.93	.64	74	2.78	.70	2.90	.66
Support - student success								
RH faculty mentor	128	3.22	.59	45	2.81	.81	3.12	.68
No RH faculty mentor	112	3.09	.65	27	2.99	.75	3.07	.67
Total	240	2.16	.62	72	2.88	.79	3.10	.67
General education								
RH faculty mentor	126	2.99	.51	47	2.75	.65	2.92	.56
No RH faculty mentor	110	2.83	.52	26	2.62	.54	2.79	.53
Total	236	2.91	.52	73	2.70	.61	2.86	.55

Table 12b

Analysis of Variance for Sensitivity to Diversity, Effective Communication, Personal Growth, Personal and Social Development, Support for Student Success, and General Education, as a Function of Student and Faculty Mentor Pairing (Residence Hall or not) and Involvement

Variable and source	*df*	*MS*	*F*	η^2
Sensitivity to diversity				
Student involvement	1	.41	.41	.002
Student and faculty pairing	1	10.04	9.98*	.050
Student involvement* Student and faculty pairing	1	.14	.14	.001
Error	190	1.01		
Effective communication				
Student involvement	1	1.72	1.78	.009
Student and Faculty Pairing	1	14.09	14.55**	.070
Student involvement* Student and faculty pairing	1	1.49	1.54	.008
Error	192	.97		
Personal growth				
Student involvement	1	.23	.24	.001
Student and Faculty Pairing	1	8.46	8.5*	.043
Student involvement* Student and faculty pairing	1	.32	.32	.002
Error	190	.99		
Personal and social development				
Student involvement	1	1.62	3.90*	.013
Student and Faculty Pairing	1	4.11	9.95*	.032
Student involvement* Student and faculty pairing	1	.002	.006	.000
Error	302	.41		
Support – student success				
Student involvement	1	3.48	7.92*	.025
Student and Faculty Pairing	1	.019	.04	.000
Student involvement* Student and faculty pairing	1	1.23	2.81	.009
Error	308	.44		
General education				
Student involvement	1	2.57	8.80	.028
Student and Faculty Pairing	1	1.09	3.72	.012
Student involvement* Student and faculty pairing	1	.011	.04	.000
Error	305	.29		

*p < .05, ** p < .001

Impact of Faculty Mentoring and School Demographics on the Constructs

A 2 X 3 Factorial ANOVA was conducted to investigate research question four

and see the effect of faculty mentoring and school demographics on the eight constructs.

4. Do student and faculty mentor pairing and school demographics each seem to have an effect on sensitivity to diversity, effective communication, personal growth, personal and social development, practical competence, general education, support for student success, and reflective learning? And do the independent variables interact?

Table 13a shows the means and standard deviations for the constructs for student and faculty mentor pairing and school location. Table 13b shows that there was a significant main effect of student and faculty mentor pairing on all the eight constructs. There was a significant main effect of student and faculty mentor pairing F (1, 308) = 4, $p < .05$ and school location F (2, 308) = 6.5, $p < .05$ on the support for student success construct. Eta for student and faculty mentor pairing was .11, a small effect, and eta for school location was .20, a medium effect. Post hoc Bonferroni indicated that Texas ($M = 3.23$, $SD = .64$) and California ($M = 2.96$, $SD = .73$) differed significantly in their scores for support for student success construct ($p < .05$, $d = .39$), which is a medium effect size. There was also a significant main effect of student and faculty mentor pairing F (1, 304) = 4.94, $p < .05$ and school location F (2, 304) = 4.19, $p < .05$ on the practical competence construct. Eta for student and faculty mentor pairing was .13, a small effect, and eta for school location was .16, a small effect. Post hoc Bonferroni indicated no significant differences.

Table 13a

Means, Standard Deviations, and n for the Constructs as a Function of Student and Faculty Mentor Pairing (Residence Hall or not) and School Demographics

	CA			IL			TX			Total	
	n	*M*	*SD*	*n*	*M*	*SD*	*N*	*M*	*SD*	*M*	*SD*
Sensitivity to diversity											
RH faculty mentor	88	2.90	.91	24	2.88	1.03	40	2.72	1.09	2.85	.97
No RH faculty	11	2.45	1.21	4	1.38	.75	27	2.17	1.05	2.17	1.09
Total	99	2.85	.95	28	2.67	1.12	67	2.5	1.10	2.70	1.04
Effective communication											
RH faculty mentor	89	2.94	.89	25	2.90	.97	41	2.71	1.10	2.87	.96
No RH faculty	11	2.27	1.12	4	1.34	.69	26	2.27	1.05	2.18	1.06
Total	100	2.86	.94	29	2.68	1.08	67	2.54	1.10	2.73	1.02
Personal growth											
RH faculty mentor	87	2.93	.90	24	2.85	1.03	41	2.62	1.12	2.83	.99
No RH faculty	11	2.41	1.08	4	1.44	.75	27	2.28	.98	2.23	1.00
Total	98	2.87	.93	28	2.65	1.11	68	2.48	1.07	2.70	1.02
Personal and social dev.											
RH faculty mentor	97	2.96	.64	29	3.09	.49	46	3.09	.73	3.02	.64
No RH faculty	42	2.69	.67	17	2.69	.54	77	2.74	.66	2.74	.65
Total	139	2.88	.66	46	2.94	.54	123	2.90	.70	2.90	.66
Support - student success											
RH faculty mentor	96	3.01	.72	29	3.21	.55	49	3.27	.62	3.12	.68
No RH faculty	44	2.84	.75	18	2.91	.55	78	3.21	.66	3.05	.69
Total	140	2.96	.73	47	3.09	.56	127	3.23	.65	3.10	.68
General education											
RH faculty mentor	96	2.86	.58	30	3.13	.49	48	2.93	.55	2.93	.56
No RH faculty	42	2.70	.53	18	2.80	.41	76	2.80	.55	2.79	.53
Total	138	2.81	.57	48	3.01	.49	124	2.87	.55	2.87	.55
Reflective learning											
RH faculty mentor	99	3.20	.59	29	3.28	.50	49	3.26	.58	3.23	.57
No RH faculty	45	3.03	.63	18	3.03	.51	79	3.15	.66	3.10	.63
Total	144	3.15	.61	47	3.18	.51	128	3.19	.63	3.17	.60
Practical competence											
RH faculty mentor	97	3.03	.61	28	3.24	.41	48	3.22	.62	3.12	.62
No RH faculty	43	2.85	.59	18	3.02	.51	76	3.09	.63	3.00	.61
Total	140	2.97	.61	46	3.16	.46	124	3.14	.66	3.07	.61

Table 13b

Analysis of Variance for Constructs, as a Function of Student and Faculty Mentor Pairing (Residence Hall or not) and School Demographics

Variable and source	df	MS	F	η²
Sensitivity to diversity				
School demographics	2	1.63	1.63	.017
Student and faculty pairing	1	13.84	13.89**	.069
School demo* Student and faculty pairing	2	1.54	1.55	.016
Error	188	1.00		
Effective communication				
School demographics	2	1.20	1.25	.013
Student and faculty pairing	1	15.45	16.02**	.078
School demo* Student and faculty pairing	2	1.76	1.83	.019
Error	190	.97		
Personal growth				
School demographics	2	1.51	1.55	.016
Student and faculty pairing	1	11.23	11.52*	.058
School demo* Student and faculty pairing	2	1.59	1.63	.017
Error	188	.98		
Personal and social development				
School demographics	2	.39	.93	.006
Student and faculty pairing	1	5.93	14.09**	.045
School demo* Student and faculty pairing	2	.06	.14	.001
Error	302	.42		
Support – student success				
School demographics	2	2.91	6.5*	.040
Student and faculty pairing	1	1.80	4.0*	.013
School demo* Student and faculty pairing	2	.22	.49	.003
Error	308	.45		
General education				
School demographics	2	.67	2.67	.015
Student and faculty pairing	1	2.22	7.50*	.024
School demo* Student and faculty pairing	2	.21	.70	.005
Error	304	.30		
Reflective learning				
School demographics	2	.23	.64	.004
Student and faculty pairing	1	1.73	4.76*	.015
School demo* Student and faculty pairing	2	.09	.23	.001
Error	313	.36		

Practical competence				
School demographics	2	1.54	4.19*	.027
Student and faculty pairing	1	1.82	4.94*	.016
School demo* Student and faculty pairing	2	.03	.10	.001
Error	304	.37		

*p < .05, ** p < .001

Impact of Faculty Mentoring and Ethnicity on the Constructs

A 2 X 5 Factorial ANOVA was conducted to investigate research question five

and see the effect of faculty mentoring and ethnicity on the eight constructs.

> 5. Do student and faculty mentor pairing and ethnicity each seem to have an effect
>
> on sensitivity to diversity, effective communication, personal growth, personal
>
> and social development, practical competence, general education, support for
>
> student success, and reflective learning? And do the independent variables
>
> interact?

There was a significant main effect of ethnicity $F (6, 182) = 2.32$, $p < .05$ and student and

faculty mentor pairing $F (1, 182) = 8.47$, $p < .05$ on the sensitivity to diversity construct.

Eta for ethnicity was .21, and Eta for student and faculty mentor pairing on sensitivity to

diversity construct was .27, which are both medium effects. There was a significant main

effect of ethnicity $F (6, 184) = 2.31$, $p < .05$ and student and faculty mentor pairing $F (1,$

$184) = 9.56$, $p < .05$ on the effective communication construct. Eta for ethnicity was .26

and eta for student and faculty mentor pairing on effective communication construct was

.22, which are medium effects. There was a significant main effect of student and faculty

mentor pairing on the personal growth construct, $F (1, 182) = 6.97$, $p < .05$. Eta for

student and faculty mentor pairing on personal growth construct was .19, which is a

medium effect. There was also a significant main effect of ethnicity $F (7, 293) = 2.76$, $p <$

.05 and student and faculty mentor pairing $F (1, 293) = 4.10$, $p < .05$ on the personal and

social development construct. Eta for ethnicity was .25, which is a medium effect, and eta for student and faculty mentor pairing on personal and social development construct was .12, which is a small effect. There was a significant main effect of ethnicity on the support for student success construct, $F(7, 300) = 3.11$, $p < .05$. Eta for ethnicity on support for student success construct was .26, which is a medium effect. There was a significant main effect of student and faculty mentor pairing on the general education construct, $F(1, 295) = 5.37$, $p < .05$. Eta for student and faculty mentor pairing on general education construct was .13, which is a small effect. There was a significant main effect of ethnicity on the reflective learning construct, $F(7, 304) = 2.22$, $p < .05$. Eta for ethnicity on reflective learning construct was .22, which is a medium effect. There was no significant interaction or main effect of ethnicity or student and faculty mentor pairing on the practical competence construct.

Post hoc analysis is not needed for ethnicity since the student-faculty mentor pairing group had fewer than three options. Mean scores of the various ethnicity groups as related to the constructs are noted in Table 14. Students who self-identified with a minority ethnic groups Black or African American and Latino(a) or Hispanic and had a faculty mentor through the residence halls had a higher mean score that their peers who self-identified as White and students who did not have a faculty mentor.

Table 14

Means of Ethnicity for Constructs

	Asian/ Pacific	Black/ African Am.	Latino(a)/ Hispanic	White	Multiracial
Sensitivity to diversity					
RH Faculty Mentor	2.85	3.11	**3.16**	2.79	3.00
No RH Faculty Mentor	2.39	1.75	2.81	2.00	2.38
Effective communication					
RH Faculty Mentor	2.85	**3.20**	3.10	2.80	3.06
No RH Faculty Mentor	2.36	2.25	2.78	2.03	2.09
Personal growth					
RH Faculty Mentor	2.64	3.14	**3.21**	2.78	2.98
No RH Faculty Mentor	2.22	2.33	2.67	2.13	2.39
Personal and social dev.					
RH Faculty Mentor	3.04	**3.46**	3.34	2.90	3.00
No RH Faculty Mentor	2.79	3.33	2.87	2.71	2.99
Support for students success					
RH Faculty Mentor	3.14	**3.69**	3.44	2.99	3.08
No RH Faculty Mentor	3.18	3.20	3.29	3.02	3.22
General education					
RH Faculty Mentor	2.81	3.08	**3.14**	2.86	3.02
No RH Faculty Mentor	2.82	2.82	2.82	2.80	2.79
Reflective learning					
RH Faculty Mentor	3.10	**3.78**	3.39	3.17	3.17
No RH Faculty Mentor	3.08	3.50	3.67	3.11	3.11
Practical competence					
RH Faculty Mentor	3.17	**3.46**	3.31	3.03	3.08
No RH Faculty Mentor	3.23	3.17	2.92	3.00	3.15

Impact of Faculty Mentoring and Gender on the Constructs

A 2 X 2 Factorial ANOVA was conducted to investigate research question six and see the effect of faculty mentoring and gender on the eight constructs.

6. Do student and faculty mentor pairing and gender have an effect on sensitivity to diversity, effective communication, personal growth, personal and social development, practical competence, general education, support for

student success, and reflective learning? And do the independent variables interact?

There was a significant main effect of student and faculty mentor pairing on the sensitivity to diversity construct, $F(1, 189) = 8.28$, $p < .05$. Eta for student and faculty mentor pairing on sensitivity to diversity construct was .20, which is a medium effect. There was a significant main effect of student and faculty mentor pairing on the effective communication construct, $F(1, 191) = 10.67$, $p < .05$. Eta for student and faculty mentor pairing on effective communication construct was .23, which is a medium effect. There was also a significant main effect of student and faculty mentor pairing on the personal growth construct, $F(1, 189) = 4.80$, $p < .05$. Eta for student and faculty mentor pairing on personal growth construct was .16, which is a small effect. There was a significant main effect of student and faculty mentor pairing on the personal and social development construct, $F(1, 303) = 4.57$, $p < .05$, and a significant interaction between student and faculty mentor pairing and gender, $F(1, 303) = 4.38$, $p < .05$. Eta for student and faculty mentor pairing on the personal and social development construct was .12, and eta for interaction was .12, which are both small effects. The interaction for the personal and social development construct is noted in Figure 3.
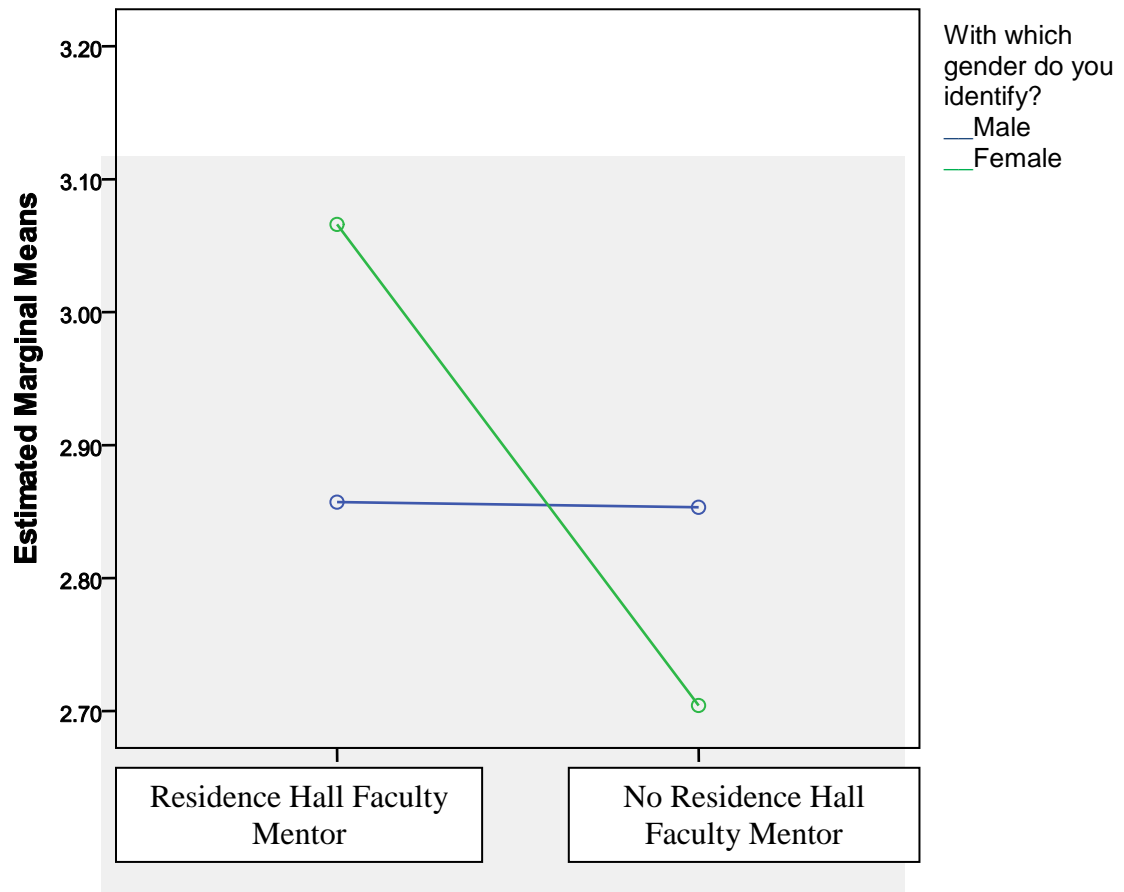
Figure 3. Estimated marginal means plot of gender and student and faculty mentor pairing to personal and social development.

There was a significant interaction between student and faculty mentor pairing and gender, $F (1, 309) = 5.04$, $p < .05$ for the support for student success construct. Eta for interaction on the support for student success construct was .13, which is a small effect and is noted in Figure 4.
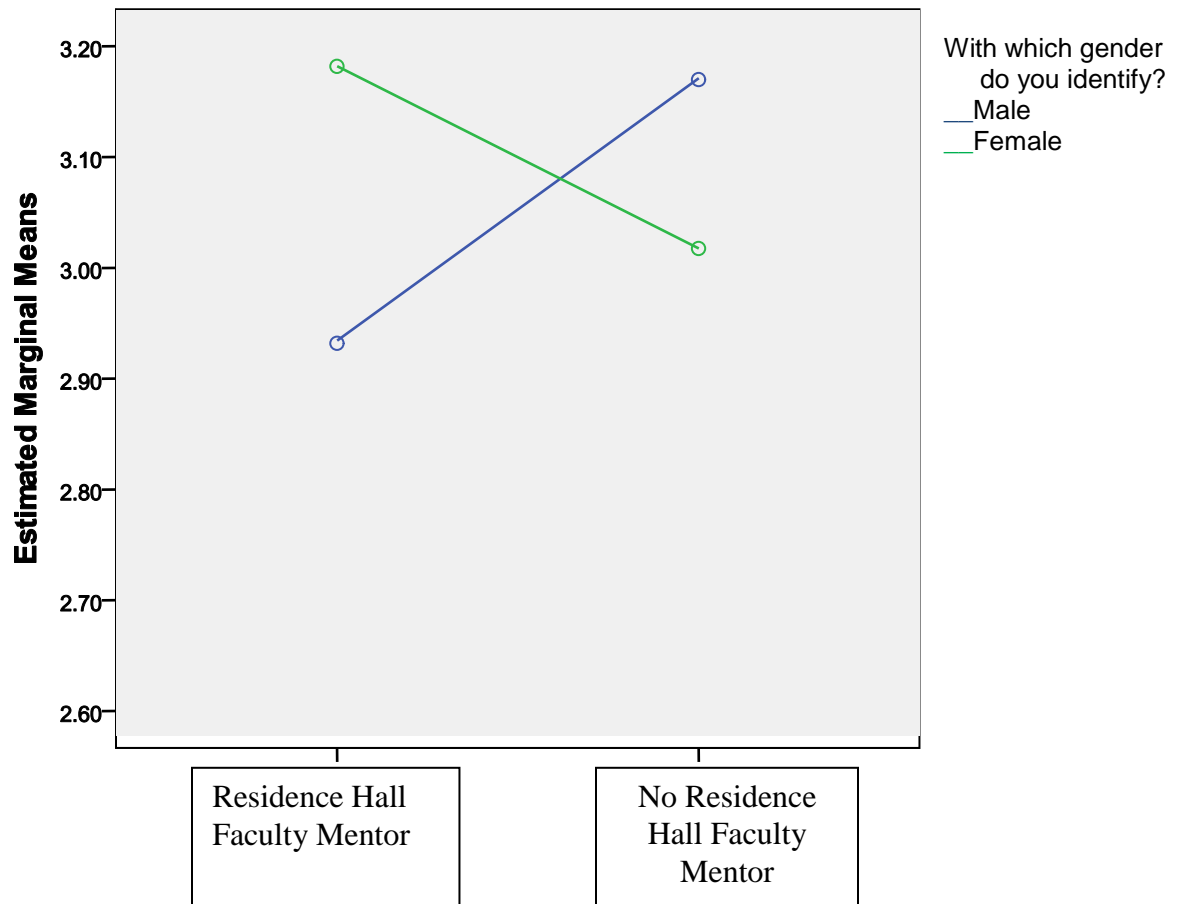
Figure 4. Estimated marginal means plot of gender and student and faculty mentor pairing to support for student success.

There was a significant interaction between student and faculty mentor pairing and gender, $F(1, 303) = 5.90$, $p < .05$ for the practical competence construct. Eta for interaction on the practical competence construct was .14, which is a small effect and is noted in Figure 5.
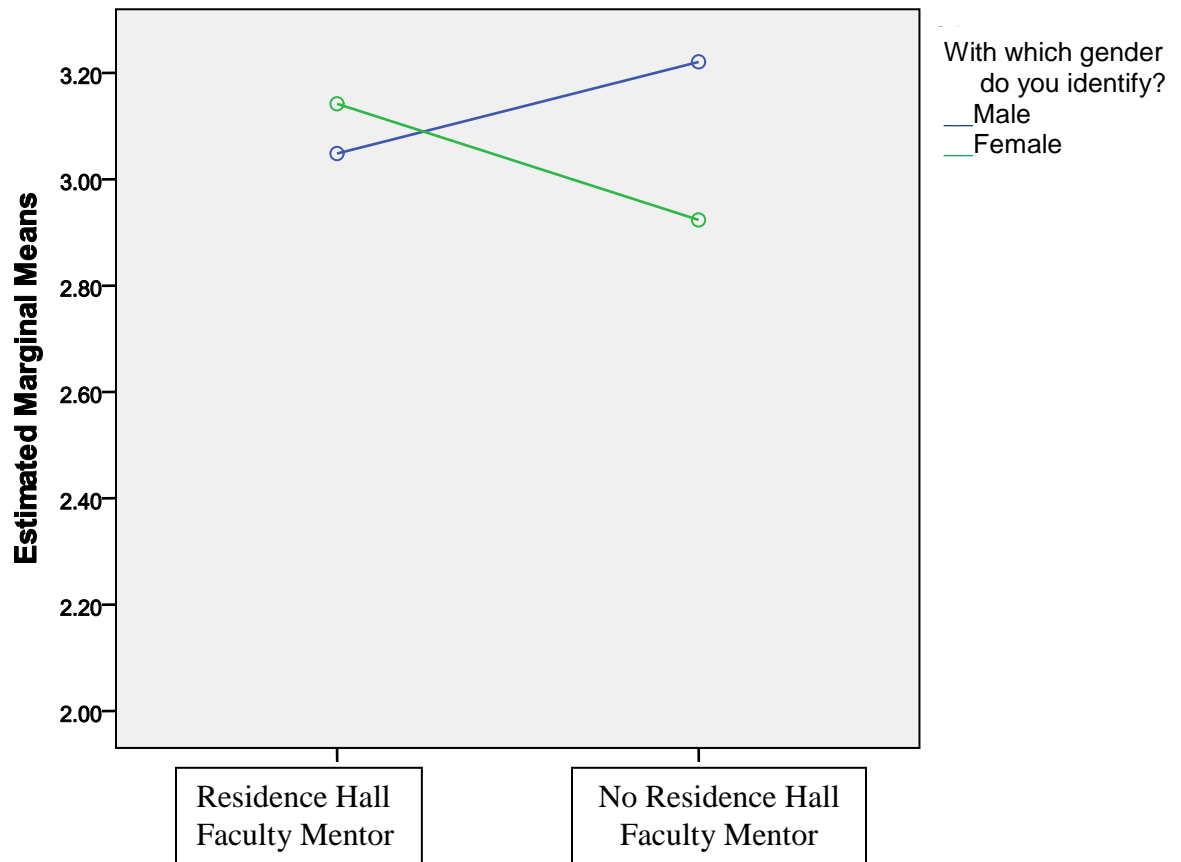
Figure 5. Estimated marginal means plot of gender and student and faculty mentor pairing to practical competence.

There was a significant interaction between student and faculty mentor pairing and gender, $F (1, 306) = 6.53$, $p < .05$ for the general education construct. Eta for interaction on the general education construct was .14, which is a small effect and is noted in Figure 6.
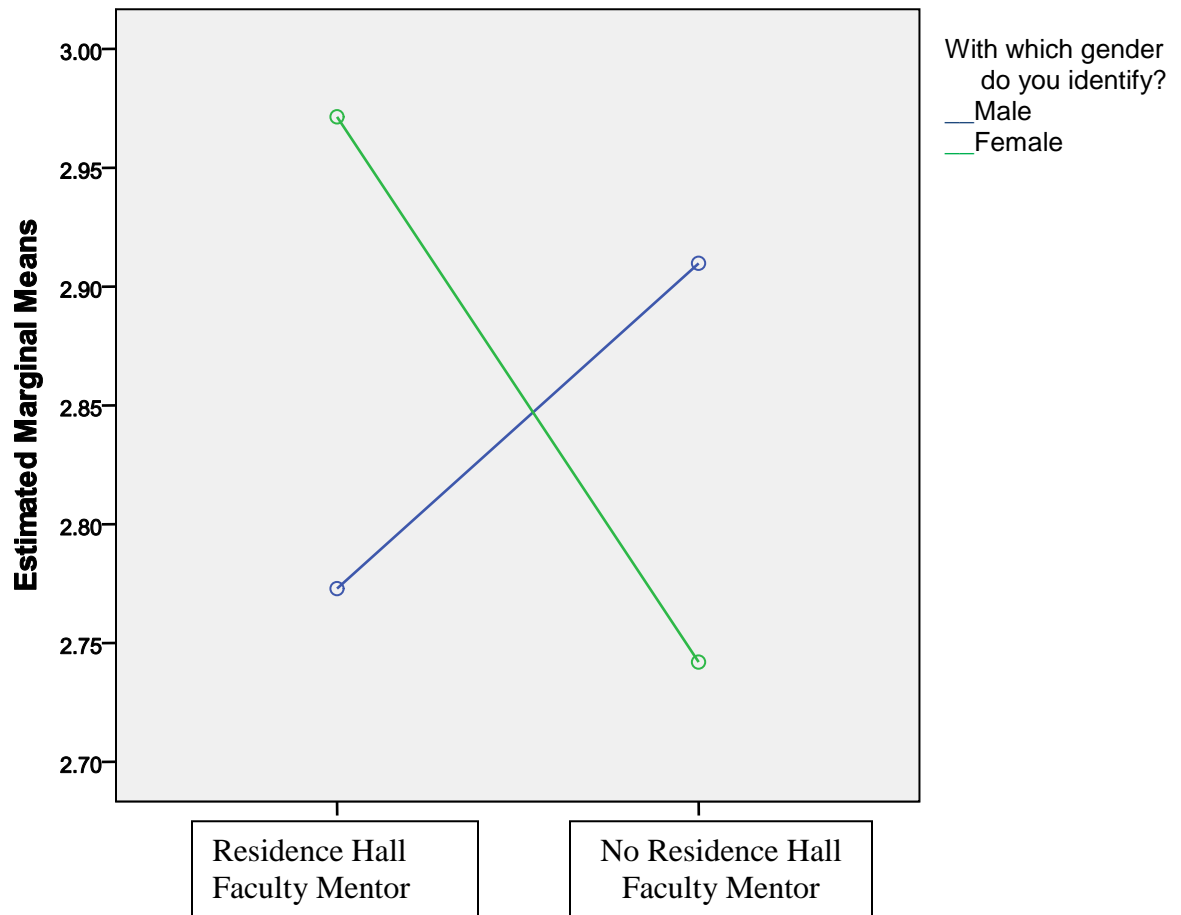
Figure 6. Estimated marginal means plot of gender and student and faculty mentor pairing to general education.

There was a significant interaction between student and faculty mentor pairing and gender, $F (1, 314) = 10.11$, $p < .05$ for the reflective learning construct. Eta for interaction on the reflective learning construct was .18, which is a small effect and is noted in Figure 7.
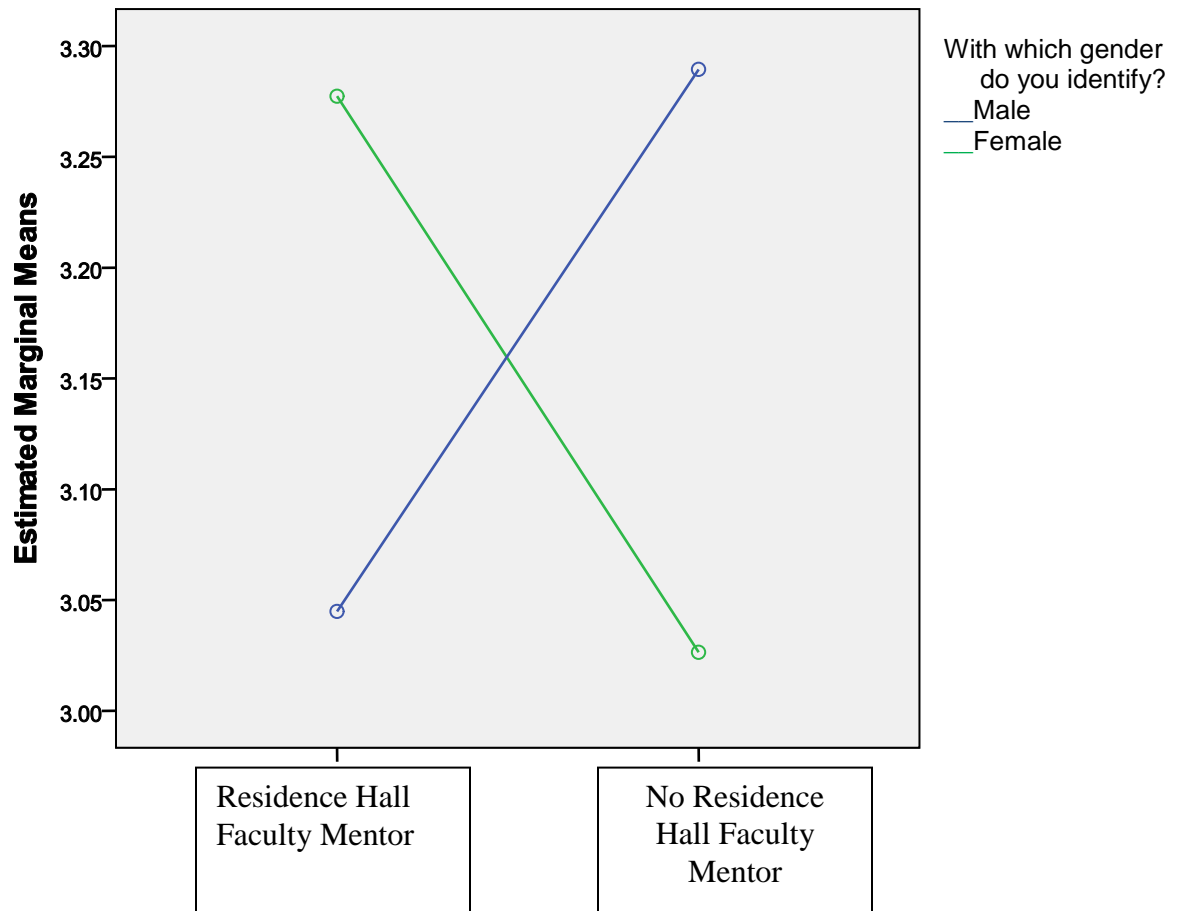
Figure 7. Estimated marginal means plot of gender and student and faculty mentor pairing to reflective learning.

Post hoc analysis is not needed for gender since the student-faculty mentor pairing group had fewer than three options. Mean scores of the various ethnicity groups as related to the constructs are noted in Table 15. Female students who had a faculty mentor assigned through the residence halls scored higher than the female students who did not have a faculty mentor assigned through their residence hall. Male students on other hand scored higher if they had a faculty mentor assigned through the residence halls for sensitivity to diversity, effective communication, personal growth, and personal and

social development constructs. Male students scored higher if they did not have a faculty

mentor assigned through their residence halls for support for student success, general

education, reflective learning, and practical competence. Female students scored higher

than their male counterparts when they had a faculty mentor assigned through the

residence halls.

Table 15

Means of Gender for Constructs

	Male	Female
Sensitivity to diversity		
RH Faculty Mentor	2.61	2.92
No RH Faculty Mentor	2.23	2.15
Effective communication		
RH Faculty Mentor	2.58	2.95
No RH Faculty Mentor	1.95	2.26
Personal growth		
RH Faculty Mentor	2.60	2.89
No RH Faculty Mentor	2.41	2.18
Personal and social dev.		
RH Faculty Mentor	2.86	3.07
No RH Faculty Mentor	2.85	2.70
Support for student success		
RH Faculty Mentor	2.92	3.18
No RH Faculty Mentor	3.16	3.02
General education		
RH Faculty Mentor	2.77	2.97
No RH Faculty Mentor	2.91	2.74
Reflective learning		
RH Faculty Mentor	3.05	3.28
No RH Faculty Mentor	3.29	3.02
Practical competence		
RH Faculty Mentor	3.05	3.14
No RH Faculty Mentor	3.22	2.92

Effect of Faculty Mentor Program on NSSE and Non-NSSE Constructs

The seventh research question explores the overall, if any, on students' scores on the five NSSE constructs based on their involvement in a faculty mentor program or not.

7. Is there a difference in students' overall score on questions related to five NSSE constructs (practical competence, general education, personal and social development, support for student success, and reflective learning) based on the opportunity to work with a faculty mentor through residence halls or not for the following hypotheses:

a) There is a significant difference as related to self-perception of gaining *practical competence* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

b) There is a significant difference as related to self-perception of gaining *general education* between students who are exposed to the faculty mentor through the residence halls and those who are not.

c) There is a significant difference as related to self-perception of *personal and social development* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

d) There is a significant difference as related to self-perception of having *support for student success* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

e) There is a significant difference as related to self-perception of engaging in *reflective learning* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

Independent sample t-tests were calculated for the five NSSE constructs and students who had a faculty mentor through residence halls versus academic program. Table 16 shows that scores for the personal and social development construct ($p < .001$) for students with faculty mentors through residence halls were significantly higher ($M = 3.02$) than the score ($M = 2.74$) for students without a residence hall faculty mentor. The effect size is $D = .43$, which is a medium effect size. The scores of the general education construct ($p = .028$) were also significantly higher ($M = 2.93$) than the scores ($M = 2.79$) for students without a residence hall faculty mentor. The effect size is $D = .13$, which is a small effect size. The t-tests rejected the hypotheses that there is a significant difference for students who were exposed to the faculty mentor program through the residence for practical competence, support for student success, and reflective learning constructs.

Table 16

Comparison of Students with Faculty Mentors through Residence Hall (RH) or not on NSSE Constructs: Personal and Social Development and General Education

Variable	*M*	*SD*	*t*	*df*	*p*
Personal and social development			3.70	306	<.001
RH Faculty mentor	3.02	.64			
No RH faculty mentor	2.74	.65			
General Education			2.20	308	.028
RH Faculty mentor	2.93	.56			
No RH faculty mentor	2.79	.53			

The eighth research question explores the overall difference if any on student's scores on the three non NSSE constructs based on their involvement in a faculty mentor program or not.

8. Is there a difference in student's overall score on questions related to the three non-NSSE constructs (sensitivity to diversity, effective communication, and personal growth) based on the opportunity to work with a faculty mentor through residence halls or not for the following hypotheses:

a) There is a significant difference as related to self-perception of gaining *sensitivity to diversity* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

b) There is a significant difference as related to self-perception of gaining *effective communication* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

c) There is a significant difference as related to self-perception of *personal growth* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

Independent sample t-tests were calculated for the three non NSSE constructs and students who had or did not have a faculty mentor through residence halls. Table 17 shows that scores for the sensitivity to diversity construct ($p < .001$) for students with faculty mentors through residence halls were significantly higher ($M = 2.85$) than the scores ($M = 2.17$) for students without a residence hall faculty mentor. The effect size is $D = .66$, which is a large effect size. The scores for the effective communication construct ($p < .001$) for students with faculty mentors through residence halls were significantly higher ($M = 2.87$) than the scores ($M = 2.18$) for students without a residence hall faculty mentor. The effect size is $D = .68$, which is a large effect size. The scores for the personal growth construct ($p = .001$) for students with faculty mentors through residence halls

were significantly higher ($M = 2.83$) than the scores ($M = 2.23$) for students without a residence hall faculty mentor. The effect size is $D = .60$, which is a large effect size. The t-tests supported the hypotheses that there is a significant difference for students who were involved in the faculty mentor program through the residence halls versus not for the following constructs: sensitivity to diversity, effective communication, and personal growth.

Table 17

Comparison of Students with Faculty Mentors through Residence Halls or not on non-NSSE Constructs: Sensitivity to Diversity, Effective Communication, and Personal Growth

Variable	M	SD	t	D	df	p
Sensitivity to diversity			3.93	.66	192	<.001
RH faculty mentor	2.85	.97				
No RH faculty mentor	2.17	1.09				
Effective communication			3.98	.68	194	<.001
RH faculty mentor	2.87	.96				
No RH faculty mentor	2.18	1.06				
Personal growth			3.47	.60	192	.001
RH Faculty mentor	2.83	.99				
No RH faculty mentor	2.23	1.00				

Correlation Matrix for NSSE and non-NSSE Variables

The three non-NSSE constructs were normally distributed, and the assumption of linearity was not markedly violated. Pearson correlations were computed to examine the intercorrelations of the constructs:

9) What are the associations among the three variables: personal growth, effective communication, and sensitivity to diversity?

Table 18 shows that three non-NSSE constructs were significantly correlated. The strongest positive correlations, which would be considered a very large effect size, was between the sensitivity to diversity and personal growth constructs, r (184) = .95, $p <$ .001 and between effective communication and personal growth constructs, r (184) = .95, $p <$.001. The sensitivity to diversity construct was also positively correlated with effective communication construct, r (184) = .94, $p <$.001. These correlations are large effect size according to Cohen (1988).

Table 18

Intercorrelations, Means, and Standard Deviations for Three non-NSSE Constructs (N = 187)

Variable	1	2	3	M	SD
Sensitivity to diversity		.94**	.95**	2.70	1.03
Effective communication			.95**	2.73	1.02
Personal growth				2.69	1.02

**$p < .001$

10) What are the associations among the five variables: practical competence, general education, personal and social development, support for student success, and reflective learning?

Table 19 shows that five NSSE constructs were significantly correlated. The strongest positive correlations, which would be considered very large effects, were between the personal and social development and practical competence constructs, r (280) = .68, $p < .001$. The personal and social development construct was also positively correlated to support for student success construct, r (280) = .60, $p <$.001, general education construct, r (280) = .65, $p <$.001, and reflective learning construct, r (280) =

.57, *p* <.001. The support for student success construct was positively correlated to the

practical competence construct *r* (280) = .57, *p* <.001, the general education construct, *r*

(280) = .50, *p* <.001, and the reflective learning construct, *r* (280) = .46, *p* <.001.

Practical competence construct was positively correlated with the general education

construct, *r* (280) = .64, *p* <.001, and reflective learning construct, *r* (280) = .54, *p* <.001.

General education construct was positively correlated with reflective learning construct *r*

(280) = .64, *p* <.001. These correlations are medium to large effect size according to

Cohen (1988).

Table 19

Intercorrelations, Means, and Standard Deviations for Five NSSE Constructs (N = 285)

Variable	1	2	3	4	5	M	SD
Personal and social development		.60**	.68**	.65**	.57**	2.90	.66
Support for student success			.57**	.50**	.46**	3.11	.67
Practical competence				.64**	.54**	3.07	.61
General education					.52**	2.85	.56
Reflective learning						3.12	.60

**p* < .001

Multiple Regression for Predictor Variables

11) How well does the combination of participation or non-participation in the faculty

mentor program, club involvement, gender, generation of study, and ethnicity

predict the eight constructs?

Simultaneous multiple regression was conducted to investigate the best predictor

for non-NSSE constructs. The mean, standard deviation, and intercorrelations can be

found in Table 20a. The combination of variable to predict sensitivity to diversity

construct from gender, ethnicity, club, generation, and faculty mentor paring was

statistically significant, $F(5, 188) = 4.91$, $p < .001$. The beta coefficients are presented in

table 20b.

Table 20a

Means, Standard Deviations, and Intercorrelations for Sensitivity to Diversity (N = 194), Effective Communication (N = 196), Personal Growth (N = 194), and Predictors

Variable	*M*	*SD*	Gender	Ethnicity	Club	Generation	Faculty Mentor
Sensitivity to diversity	2.70	1.04	.09	-.132*	-.003	-.189*	-.273**
Predictor variable							
1.Gender	1.78	.45	--	-.10	-.02	-.04	-.05
2. Ethnicity	4.61	2.08		--	.07	.11	.04
3. Club	1.24	.43			--	-.01	-.12*
4. Generation	1.77	.42				--	.10
5. Faculty mentor	1.22	.41					--
Effective comm.	2.73	1.02	.16*	-.12*	-.01	-.18*	-.28**
Predictor variable							
1.Gender	1.79	.45	--	-.11	-.02	-.05	-.03
2.Ethnicity	4.59	2.08		--	.67	.13*	.12
3.Club	1.24	.43			--	-.02	-.12
4.Generation	1.77	.42				--	.08
5. Faculty mentor	1.21	.41					--
Personal growth	2.70	1.02	.08	-.07	.02	-.20*	-.24**
Predictor variable							
1.Gender	1.80	.44	--	-.09	-.04	-.03	-.05
2.Ethnicity	4.58	2.07		--	.07	.14*	.03
3.Club	1.25	.43			--	-.03	-.13*
4.Generation	1.77	.42				--	.08
5.Faculty mentor	1.22	.41					--

*$p < .05$, ** $p < .001$

Table 20b

Simultaneous Multiple Regression Analysis Summary for Gender, Ethnicity, Club Involvement, Generation of Study, and Faculty Mentor Pairing, and non-NSSE Constructs

Variable	*B*	*SEB*	ß
Sensitivity to diversity			
Gender	.14	.16	.06
Ethnicity	.05	.04	.10
Club	.07	.17	.03
Generation	.37	.17	.15*
Faculty mentor pairing	.63	.18	.25**
Constant	4.17	.54	
Effective communication			
Gender	.31	.16	.14*
Ethnicity	.04	.03	.08
Club	.09	.16	.04
Generation	.34	.16	.14*
Faculty mentor pairing	.66	.17	.26**
Constant	3.86	.53	
Personal growth			
Gender	.14	.16	.06
Ethnicity	.02	.04	.03
Club	.01	.17	.01
Generation	.43	.17	.18*
Faculty mentor pairing	.56	.17	.23*
Constant	3.98	.55	

*$p < .05$, ** $p < .001$

Generation of study and faculty mentor pairing significantly predicted the sensitivity to diversity construct when all five variables were included. The adjusted R^2 value was .092. This indicates that 9% of the variance in the sensitivity to diversity construct was explained by the model. According to Cohen (1988), this is a small effect. The combination of variables to predict the effective communication construct from gender, ethnicity, club, generation, and faculty mentor paring was statistically significant, $F(5, 190) = 5.70$, $p < .001$. Generation of study, gender, and faculty mentor pairing

significantly predicted the effective communication construct when all five variables were included. The adjusted R^2 value was .107. This indicates that 11% of the variance in the effective communication construct was explained by the model. According to Cohen (1988), this is a small effect. The combination of variables to predict the personal growth construct from gender, ethnicity, club, generation, and faculty mentor paring was statistically significant, $F(5, 188) = 4.05$, $p < .05$. The generation of study and faculty mentor pairing significantly predicted the personal growth construct when all five variables were included. The adjusted R^2 value was .073, which indicates that 7% of the variance in the personal growth construct was explained by the model. According to Cohen (1988), this is a small effect.

Next, simultaneous multiple regression was conducted to investigate the best predictor for NSSE constructs. The mean, standard deviation, and intercorrelations can be found in Table 21a. The combination of variables to predict the personal and social development construct from gender, ethnicity, club, generation, and faculty mentor paring was statistically significant, $F(5, 299) = 5$, $p < .001$. The beta coefficients are presented in table 21b. Ethnicity and faculty mentor pairing significantly predicted the personal and social development construct when all five variables were included. The adjusted R^2 value was .062. This indicates that 6% of the variance in the personal and social development construct was explained by the model. According to Cohen (1988), this is a small effect. The combination of variables to predict support for the student success construct from gender, ethnicity, club, generation, and faculty mentor paring was statistically significant, $F(5, 306) = 4.08$, $p < .05$. Ethnicity and gender significantly predicted support for the student success construct when all five variables were

Table 21a

Means, Standard Deviations, and Intercorrelations for Personal and Social Development (N = 305), Support for Student Success (N = 312), Practical Competence (N = 307), and Predictors

Variable	*M*	*SD*	Gender	Ethnicity	Club	Generation	Faculty Mentor
Personal & social	2.90	.66	.05	-.16*	-.10*	-.11*	-.20**
Predictor variable							
1.Gender	1.76	.45	--	-.08	-.01	-.03	-.07
2. Ethnicity	4.68	2.13		--	.13*	.12*	.07
3. Club	1.24	.43			--	.02	-.07
4. Generation	1.78	.41				--	.10*
5. Faculty mentor	1.44	.50					--
Support for student	3.10	.67	.04*	-.18*	-.18*	-.09	-.04
success							
Predictor variable							
1.Gender	1.76	.45	--	-.10*	-.12	-.03	-.06
2.Ethnicity	4.68	2.12		--	.14*	.13*	.08
3.Club	1.23	.42			--	.03	-.08
4.Generation	1.79	.41				--	.11*
5. Faculty mentor	1.45	.50					--
Practical comp.	3.07	.61	-.07	-.17*	-.16*	-.11*	-.09
Predictor variable							
1.Gender	1.77	.45	--	-.10*	-.02	-.03	-.08
2.Ethnicity	4.68	2.12		--	.13*	.13*	.07
3.Club	1.23	.42			--	.01	-.10
4.Generation	1.78	.41				--	.12*
5.Faculty mentor	1.44	.50					--

*p < .05, ** p < .001

included. The adjusted R^2 value was .047. This indicates that 5% of the variance in

support for student success construct was explained by the model. According to Cohen

(1988), this is a small effect. The combination of variable to predict the practical

competence construct from gender, ethnicity, club, generation, and faculty mentor paring

was statistically significant, $F(5, 301) = 4.74$, $p < .001$. Ethnicity and club involvement

significantly predicted the practical competence construct when all five variables were

included. The adjusted R^2 value was .058, which indicates that 6% of the variance in

practical competence construct was explained by the model. According to Cohen (1988),

this is a small effect. The combination of variables to predict the general education

construct from gender, ethnicity, club, generation, and faculty mentor paring was

statistically significant, $F(5, 302) = 3.33$, $p < .05$ but the adjusted R^2 value was .037 so

only 4% of the variance in general education construct was explained by the model,

hence the construct was not included in the tables. The combination of variables to

predict reflective learning construct from gender, ethnicity, club, generation, and faculty

mentor paring was not statistically significant.

Table 21b

Simultaneous Multiple Regression Analysis Summary for Gender, Ethnicity, Club Involvement, Generation of Study, and Faculty Mentor Pairing, and NSSE Constructs

Variable	B	SEB	ß
Personal and social development			
Gender	.04	.08	.03
Ethnicity	.04	.18	.13*
Club	.14	.09	.09
Generation	.12	.09	.08
Faculty mentor pairing	.25	.07	.19*
Constant	3.76	.27	
Support for student success			
Gender	.03	.08	.02
Ethnicity	.05	.02	.15*
Club	.25	.09	.16*
Generation	.10	.09	.06
Faculty mentor pairing	.04	.08	.03
Constant	3.80	.28	
Practical competence			
Gender	.13	.08	.10
Ethnicity	.04	.02	.15*
Club	.22	.08	.15*
Generation	.12	.08	.08
Faculty mentor pairing	.11	.07	.09
Constant	4.13	.25	

*$p < .05$, ** $p < .001$

Student Recommendations about Faculty Mentoring Program

The final research question reviewed students' recommendations to other students and the perceived value of engaging with faculty mentors:

12. Do students see value in outside the classroom interaction with faculty members? The following directional hypotheses were examined and tested in this study:

    a)   Students who are exposed to the faculty mentor program through the residence halls will have a higher score on recommendation that other students get to know faculty members outside the classroom than their peers without a faculty mentor through the residence halls.

    b)   Students who are exposed to the faculty mentor program through residence halls will score higher on the perception that faculty interaction outside the classroom is beneficial and important to their overall growth and maturity as an individual than their peers without a faculty mentor through the residence halls.

Both of the directional hypotheses were rejected since there was no significant difference for questions 12a and 12b. However, students who had a faculty mentor through the residence halls highly recommended ($M = 3.31$ on a scale of 4, $SD = .78$) that other students get to know faculty members outside the classroom, as noted in Figure 8.

Question 12b was completed by all students and there was no significant difference between students who had a faculty mentor through the residence halls or academic programs in regards to their perception of faculty interaction outside the classroom being beneficial and important to their overall growth and maturity as an individual.

Student Recommendation

Strongly Agree = 76
Agree = 58
Disagree = 19
Strongly Disagree = 4

48%
37%
12%
3%
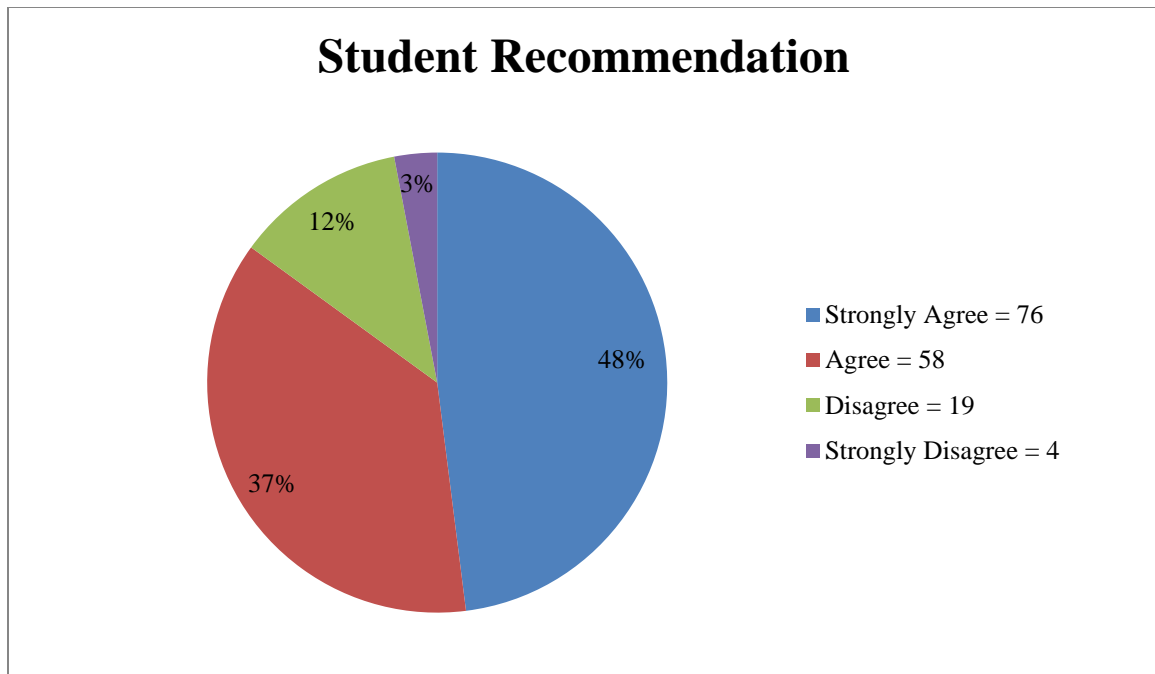
Figure 8. Pie chart on student recommendation of faculty mentor program.

Faculty Mentor Description by Students

Students were provided an opportunity to narrate their story or experience related to the impact their faculty mentor had made on them. Eighteen students had a positive comment while three students said they did not have a faculty mentor and one student said it had made no impact. Comments and themes that emerged regarding their experiences are discussed below and embedded in the discussion of findings in chapter 5. The comments are not directly tied to any research question but provide rich qualitative data to complement the statistical findings. The themes that emerged within the open ended question were:

Impact of faculty on their personal life: Four students indicated how their faculty mentors had affected their personal lives. One student commented about her faculty mentor that "you can see how much she enjoys her life and she makes you think about

your own life and how to appreciate the little things." Another student remarked how "being able to e-mail my faculty mentor and have lunch with her and learning more about her college and life experiences has been very fun, interesting, and beneficial to me."

Impact of faculty on their academics: Three students commented how their faculty mentors were an expert in their field. One student described his/her faculty mentor "as a familiar face when walking to class. She is always someone I can talk to about classes or academics." When students saw their faculty mentor in the community and outside the classroom, they equated the familiarity of faculty members as being approachable to ask academic related questions.

Impact of faculty on their social and career skills: The impact of faculty mentors on students goes beyond the academic realm and six students shared how faculty mentor programs had brought students together to participate in creative social programs which had allowed them to meet other people. One student commented how his faculty mentor had helped him "through major choices as well as aiding in his career search."

Accessibility and approachability to faculty members: Four students pointed out that having a faculty mentor had increased their confidence to approach other faculty members since it allowed them to see how accessible their own faculty mentors were. One student added that their faculty mentor allowed him/her to "have the confidence to approach other professors and value my knowledge."

Seeing the human side of faculty: Four students noted adjectives such as "amazing, kind-hearted, approachable, and knowledgeable" to describe their faculty mentor. One student described her faculty mentor as "such an amazing, kind-hearted person that you cannot help but smile when you are around her." Being able to see the human and

emotional side of the faculty mentors allowed students to break the student-faculty barrier and see their faculty mentor and other faculty members as individuals who were there to help them succeed.

When all students were asked to state a preference regarding how they would describe their faculty mentors, majority picked mentor ($n = 83$), resource person on campus ($n = 82$), and counselor ($n = 64$). The top picks were followed by friend ($n = 53$), professor ($n = 41$), mediator ($n = 29$), and other ($n = 17$). The findings are noted as number of responses versus percentages since students could pick multiple responses.
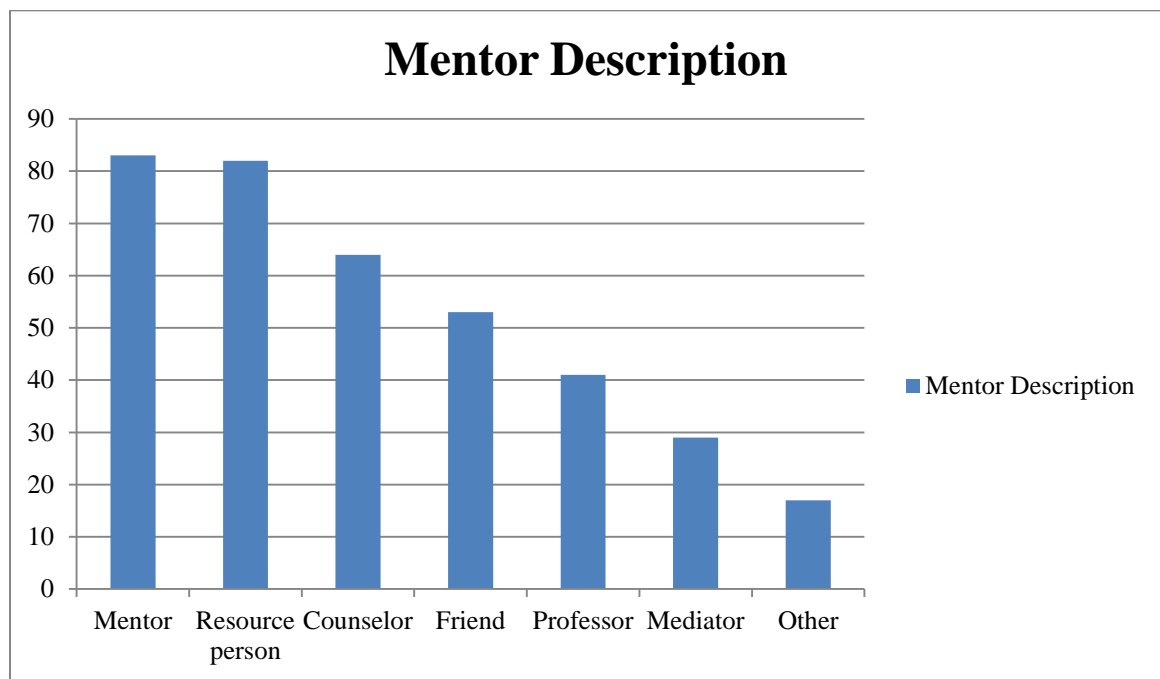

Figure 9. Bar chart on student descriptions of faculty mentors.

Faculty Mentor Program Debriefing by Program Coordinators

The following guiding questions were used with faculty mentor program coordinators at the three institutions to provide further insight into the research findings:

a. What impact do you hope the faculty mentor program will make on the

   students?

The themes that emerged from the interviews with the program coordinators

were:

Approachability to other faculty members: All the program coordinators stated that

they hoped that having a faculty mentor on the floor will allow students to approach other

faculty members and make a "it less scary" experience. They also saw the faculty mentor

program being able to bridge the gap between classroom and out-of-classroom learning.

Humanizes faculty position: The program coordinators believed that the faculty mentor

program demystifies the faculty position and makes them more human. One of the

program coordinators stated that "when students have dinner with them and see that it is

not such a big deal," it allows them to see faculty as "humans and not just lecturers and

provides them with an opportunity to learn about their faculty mentor's personal

interests."

Connection to campus: The program coordinators felt that the faculty mentor program

allows students to ask questions that are academically related to their mentors and the

faculty mentors have access to resources on campus. One of the program coordinator

stated that if the "students feel engaged academically due to access to a faculty member,

then they may feel more connected to the campus."

b. Do you feel the findings are representative of the experience you hope your

   faculty mentor program to achieve? If yes or no, please explain.

The themes that emerged from the interviews with the program coordinators were:

First generation students: The program coordinators said they could see how faculty mentor programs would have an impact on first generation college students. They added that faculty mentors are certainly aware of resources on campus and if first generation students did not know where to seek out particular resources, the faculty mentors could assist them. One of the program coordinators said that "these students may not be able to get similar advice from home," and having a faculty mentor through the community is beneficial and convenient for first generation students.

Minority students: Similar to the first generation student population, the program coordinators concurred that the faculty mentor program would be beneficial for minority students since it breaks the barrier between student and faculty and provides easy access through their community. One of the program coordinator said that "they had personally heard from minority students that this program has benefited them since they attend a primarily white campus, which can be a culture shock for minority students."

Learning how to engage with other faculty members: The program coordinators acknowledged that faculty mentors assisted students in how to interact with other faculty members. The coordinators identified various topics such as how to navigate through a class, get extra help, or how to ask questions to faculty. One of the program coordinators shared that at their campus one of the faculty mentor "conducted a program on things not to ask your faculty. For example, the faculty mentor said it happens very often that if students are going to miss a class they ask if anything important will be covered, and this is a pet peeve for faculty."

Support to students: The program coordinators shared that faculty mentors provide a wide range of support to students which varies from academic advice; relationship

advice; to learning new skills such as cooking, creating origami figures. The emotional

bond allows the students trust their faculty mentors and seek them out for different

reasons. One of the program coordinators revealed that "their campus had an incident in

which a student who was contemplating suicide and told his faculty mentor first because

of the social and emotional bond which goes way beyond academics."

      c.   Based on the results, do you have recommendations for any institution that

               may want to implement a faculty mentor program?

The program coordinators shared their experiences and reflected on the struggles

in creating and sustaining the faculty mentor as they provided the following

recommendations:

Generate support for the program: The program coordinators were univocal in their

response that in order to start or sustain a faculty mentor program there needs to be a

level of support and commitment from top administrators. Some of the administrative

levels identified by the coordinators were: president, vice president, director, provost,

deans, chairs, and others. The coordinators also cautioned that it is important to involve

prospective faculty mentors in the planning phase. One program coordinator stated that

"money is not as important as political support."

Philosophy behind the program: The program coordinators had a similar end goal for

the program but their approach and philosophy varied in the manner they selected faculty

mentors, matched resident assistant staff, and the expectations of their faculty mentors.

Regardless of individual campus differences, each program coordinator emphasized that

it was important to be clear about their philosophy and learning outcomes when

communicating with prospective faculty mentors and presenting to the deans and chairs.

RA-faculty mentor pairing: The program coordinators also varied in how they matched the faculty mentor with the resident assistant. One campus matched the faculty and RA based on their academic major while another allowed the RA to pick their faculty member from any major. Regardless of the matching method, the program coordinators indicated that for paring where the RA and the faculty mentor already had a previous relationship due to a former class or assignment, these pairs were the strongest since there was trust from the very beginning.

Faculty member's time commitment: The program coordinators were cognizant of the time commitment required from faculty members in order to engage in the residential community. One program coordinator shared that "RAs have last-minute programs, which disappoint faculty mentors if they cannot be present. The program coordinator plays an important role in mediating this conversation and helping RAs be more reflective in their planning."

Incentives for faculty mentors: The program coordinators shared that none of their campuses provide any class release time for the faculty members to participate in these mentoring programs. The coordinators identified intrinsic motivation to work with students outside the classroom and get to know them as a key factor for participating in the program. One of the program coordinators had a "faculty mentor who wanted to be involved in the program even after he retired from the university." Monetary incentives for all the three campuses came in the form of meal passes or meal credit and resources to take students to plays, field trips, and other activities.

Other groups that support the faculty mentor program: The program coordinators added that other than the on-campus constituents, there was support for the program from

parents and alumni offices. The coordinators added that parents were usually quite

impressed that their student would have access to a faculty member in their living

community. One of the program coordinators said that "students who are really happy

about their experience of being on a business or science floor will be more willing to give

back after they graduate since they remember their experiences."

CHAPTER 5: DISCUSSION

As more demands are being placed on faculty in the classroom, the debate surrounding the feasibility of faculty having the time and resources to be involved outside the classroom continues. The researcher hypothesized that students living in the residence halls with faculty mentors would self-report higher scores on the eight constructs that measure student engagement (NSSE constructs), personal development, and learning (non NSSE constructs). This assumption was based on previous research that indicated students who engaged with faculty had a higher retention rate and were more satisfied with their college experience (Tinto, 1993).

This study explored the relationship of faculty mentoring outside the classroom to student engagement, personal development, and learning in an experiential learning environment of the residence halls; it included two main categories:

1. The relationship between students with or without a faculty mentor provided through their residence hall experience, as related to the eight constructs (five from NSSE and three non-NSSE), and demographic details were analyzed.

2. The relationship between students with or without a faculty mentor provided through their residence hall experience, as related to the eight constructs (five from NSSE and three non-NSSE), and their impact on student engagement, personal development, and learning.

Factorial analysis and multiple regressions were conducted to assess the structure and relationship between the variables. The findings of Chapter IV were shared with the coordinators who oversee the faculty mentor program at their respective institutions. Their comments have been embedded in the discussion of results in this chapter.

The overall survey completion rate for this web survey was 8%. This may appear low but research by Messer and Dillman (2011) indicates that web-only survey yields low response rates. While Messer and Dillman recommend a web plus mail design, they also suggest some type of prepaid incentive in order to increase the response rate. For this survey, no prepaid incentive was used. In addition, the researcher did not have a prior relationship with the students surveyed. In this information and tech age, students are being bombarded with messages, marketing ads, and other information via not only the net but also over their personal e-mail accounts. Thus, many students block and filter out what they consider as junk mail and even then are selective in responding to e-mail that happens to make it to their inbox.

Discussion of Research Questions

Difference between Student and Faculty Pairings for NSSE Constructs

1. Are there differences among the three groups (students who have a faculty mentor through the residence halls, students who have a faculty mentor through their academic program, and students who do not have a faculty mentor) on NSSE constructs: personal and social development, support for student success, practical competence, general education, and reflective learning?

The results indicated regardless of whether students were assigned a faculty mentor while living in the residence halls or through their academic program, both groups

showed a significant difference over their peers who did not have or work with a faculty

mentor in the areas of personal and social development, support for student success, and

reflective learning. This lends itself to the notion that faculty mentoring outside of the

classroom has merit especially in the areas that include social intelligence and

introspection.

Impact of Faculty Mentoring and Generation of Study on the Constructs

2. Does student and faculty mentor pairing, along with being a first generation

    student have an effect on the sensitivity to diversity, effective communication,

    personal growth, personal and social development, practical competence, general

    education, support for student success, and reflective learning constructs? And do

    the independent variables interact?

 First generation students involved in the faculty mentor program showed

significant difference for three out of the eight constructs: effective communication,

personal growth, and practical competence. Concerning the effective communication

construct, first-generation students self-reported an increase in their ability to balance

social and academic obligations, understand teamwork, become involved in campus

activities, and approach other faculty members due to their involvement in the faculty

mentor program in comparison to their counterparts. It was important for first-generation

students to feel connected to the campus and find social and academic support systems in

order to navigate the college campus successfully their first year.

Concerning the personal growth construct, first-generation students self-reported

an increase in their self-esteem, confidence, creativity, intellectual curiosity, and

improved interpersonal skills due to their involvement in the faculty mentor program in

comparison to their counterparts. The residence halls may provide a non-threatening environment in comparison to the classroom or an office, which most likely allows first-generation students to relax and engage in new activities. This finding is reaffirmed by studies showing that students are more engaged in intellectual discussion and activities outside the classroom (Fitzpatrick, 2011, Terenzini, et al., 1996), and this seems to be the case for first-generation students in this study.

Concerning the practical competence construct, first-generation students self-reported an increased ability to solve real-world problems, analyze quantitative problems, use computer and information technology, and acquire job- or work-related knowledge and skills in comparison to their counterparts. The social confidence discussed with regard to the effective communication and personal growth constructs appears to carry forward into the academic realm as a result of student-faculty interaction in the residence halls. This phenomenon could be a result of faculty mentor's willingness to proofread papers, explain concepts, or simply prepare first-year students to engage within the classroom with their peers and other faculty mentors. One of the program coordinators shared an example of a program that was facilitated by a faculty mentor on things not to ask another faculty member. This faculty mentor shared that it is not uncommon for students to ask their faculty if anything important will be covered during a class they plan to miss, and faculty members do not appreciate this question.

The faculty mentor program coordinators concurred with this finding and indicated they could see how first-generation students benefit from having a faculty member available to direct them to resources and answer academic-related questions. This is especially true if the students did not get this type of support from their family and

or friends. They also suggested that an earlier connection with a faculty mentor could be an influence on first-generation students feeling a connection to the institution and as a result, possibly have an effect on retention.

Accessibility to a faculty mentor in a residence hall community setting appears to benefit first-generation students. This finding is supported by the study of first-generation students in living-learning communities and their sense of having an easier academic and social transition to college than their peers due to such structured activities as faculty interaction and residence hall programming (Inkelas, Daver, Vogt, & Leonard, 2007).

Impact of Faculty Mentoring and Students Involved in Clubs and Organizations on the Constructs

3. Does student and faculty mentor pairing along with being involved in club and organizations have an effect on sensitivity to diversity, effective communication, personal growth, personal and social development, practical competence, general education, support for student success, and reflective learning? And do the independent variables interact?

Students involved in clubs and organizations that also had a faculty mentor through the residence halls showed a significant difference on two out of the eight constructs: personal and social development and support for student success. Students involved in campus organizations and those who had a faculty mentor through the residence halls self-reported an increase with regards to their engagement with local and national elections, contributions to the welfare of their community, understanding personal values and ethics, and developing a deepened sense of spirituality in comparison to their counterparts. Concerning the support for student success construct, students

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involved in campus organizations and those who had a faculty mentor self-reported an increase in regards to their engagement with campus events, contact with students from different economic, social, and racial or ethnic backgrounds, and having knowledge of academic and non-academic support agencies at the institution in comparison to their counterparts.

Clubs and organizations are student driven by nature, and exist because of a void not currently being met on a particular campus. Thus, they are formed with a specific purpose in mind. Their constitutions, elected leadership, past history, and culture all aim at meeting this purpose. Many clubs and organizations have laws and bylaws written into their constitution that address fellowship, service, and community engagement along with leadership. Hence, these students already have a desire to make an impact in these areas and have shown a willingness and desire to interact with others from various backgrounds in the community. One could say that these students are open to new experiences and also have the wherewithal to capitalize on them. Thus, adding a faculty mentor to further enrich their campus experience only makes sense to them. They welcome opportunities to engage, collaborate and learn. One can say that they are open to challenging their view of themselves and the world around them. Thus, based on the purpose of clubs and organization and the role of a faculty mentor the results showing a significant difference in these two constructs seems to make sense. Why they did not show a significant difference in the other constructs might be based on the nature of the construct and the relationship with a faculty mentor. Many of these constructs involve spending time, energy, and training, as such is the case in the general education construct that speaks about one's ability to write and speak clearly, along with the ability to

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critically, and think analytically. These constructs seem outside of the scope and range of the faculty mentor program.

For overall mean scores, students involved in clubs and organizations and who had a faculty mentor through their residence hall self-reported higher scores than their peers who did not have a faculty mentor through the residence halls for all the constructs. Faculty members on college campuses tend to be a great resource to connect students to both academic and non-academic organizations. The faculty mentor program coordinators at the three schools concurred with this finding and added that participation in clubs and organizations provides an outlet to engage, share, and learn; hence, active participation has an effect on the student's social and academic life. This finding is supported by the study that showed increased participation in clubs and student groups by students led to higher self-confident to achieve academically (House, 2000) and having a faculty mentor certainly aided students in scoring higher on the constructs.

Impact of Faculty Mentoring and School Demographics on the Constructs

4. Do student and faculty mentor pairing and school demographics have an effect on sensitivity to diversity, effective communication, personal growth, personal and social development, practical competence, general education, support for student success, and reflective learning? And do the independent variables interact?

The mean scores for the three institutions located in California, Illinois, and Texas were relatively close; hence institutional demographics did not appear to play a significant role in the constructs. This finding was somewhat surprising, since the sample schools seem to have different profiles, such as two of the schools were more focused on teaching, while the third emphasized research. One is mid-size, while the other two are

considered large, and one is more urban versus the other two being considered college

towns. Finally, the length of time the faculty mentor programs had been in existence

ranged from fifteen years to one year.

The researcher assumed that students involved with the faculty mentor programs

that had been in existence for a longer period of time would score higher on the

constructs. As results indicate, this was not the case. A possible explanation for this

finding could be that the student population is always under a constant flux so even

though the faculty mentors may return to the program year after year, the student

experience with a faculty mentor in the residence hall is typically limited to one or two

years. Hence, it seems that the quality of student-faculty interaction is more important

than the longevity of the program.

The researcher also assumed that student and faculty relationships would be

stronger at institutions with a teaching focus versus a research focus. This was based on

the perception that faculty at research-driven institutions have less time to be involved in

service programs and may not see these as value-added programs. As the results

indicated, this was not a finding of this research. The results of no significant effect on

institution type challenged popular belief that faculty members and academic departments

at research institutions place little importance on anything other than publication and

research when research and grant dollars are at risk (Kennedy, 2011).

The faculty mentor program coordinators noted that faculty mentors who tended to

be involved in the mentoring program did so because of being intrinsically motivated

since none of the institutions offered any class release time for engagement in the

mentoring relationship. This explained that what appears to be most important in a

student and faculty mentoring relationship is the quality of the personal interaction and commitment to build a close working relationship, not institutional status and demographics. The finding reinforced Johnson and Ridley's (2008) belief that in order to have an effective student-faculty relationship, the basic requirement for the faculty mentor is to simply be available to their students.

Impact of Faculty Mentoring and Ethnicity on the Constructs

5. Do student and faculty mentor pairing and ethnicity each seem to have an effect on sensitivity to diversity, effective communication, personal growth, personal and social development, practical competence, general education, support for student success, and reflective learning? And do the independent variables interact?

Student ethnicity had a significant impact on five of the eight constructs: sensitivity to diversity, effective communication, personal and social development, support for student success, and reflective learning. The population sample was fairly diverse, with 57% of students self-identifying as White, 17% as Asian/Pacific Islander, 14% as Black/African American, 13% as Latino/Hispanic, and 4.7% as Multiracial.

Students who self-identified as Black/African American as their ethnicity and had a faculty mentor assigned through the residence halls self-reported highest overall mean scores and findings for this group was statistically significant for effective communication, personal and social development, support for student success, and reflective learning constructs. Latino/Hispanics self-reported and had a statistically significant finding for the sensitivity to diversity construct. Also, Latino students ranked

second in mean score behind Black/African American students in the four constructs mentioned previously.

These findings have the potential to provide tools in serving these two student populations since research by Chen (2005) has shown that "African American and Latina/o student graduation rates lag 16 to 25 percentage points below the rates of Asian Americans and European Americans" (as cited in Schreiner, Noel, Anderson, & Cantwell, 2011, p. 321). Another study by Santos and Reigadas (2002) indicated that Latino students benefited from faculty mentoring relationships and experienced an "increase in college self-efficacy and academic goal definition" (p. 40). Davis's (2007) research also pointed to the importance of the student-faculty mentoring relationship as it pertains to African American students:

> The findings of this research suggest the importance of encouraging mentorship and creating educational climates to support the cultivation and maintenance of such relationships (i.e. funds for graduate assistantships, recognition for faculty student collaboration, etc.). Lack of mentorship holds implications for the academic experiences and outcomes of today's and future Black students. Failure to mentor this underrepresented population threatens the group's aspiration, matriculation, and subsequent attainment at both the undergraduate and graduate levels. (p. 227)

The research findings suggested that a strong assumption can be made that faculty mentor programs offered through the residence halls have a significant impact on Black/African American, and Latino/Hispanic students. The program coordinators in each of the three sample schools indicated similar feedback from these two groups of students. Black/African American and Latino/Hispanic students have indicated that the program benefited them by having mentors available through their living community to help connect them to campus, especially on a predominantly white campus where culture

shock is both real and limiting. In these instances a faculty mentor provides mentees with

someone on campus who cares and is available to answer their questions and provide

resources. The relationship between student and faculty is critical since students:

> Perceived the faculty and staff as institutional agents; that is, they interpreted the care and concern shown for them by these campus personnel as indicative of the university's commitment to them. Our assertion is that relationships can make a significant difference in student's ability to succeed and persist. A corollary to this assertion is that students do not stay in or leave institutions as much as they stay in or leave relationships. (Schreiner, et al., 2011, p. 332-333)

This finding is reaffirmed by previous research that student-faculty interaction has a

positive effect on students with different race and ethnicity (Kuh et al., 2007).

Having seemed to make the case for the benefits involved in having a faculty

mentor especially for Black/African American, and Latino/Hispanic students the

methodology used seemed to have a number of shortcomings. The researcher is

attributing the higher mean scores based on the faculty - student relationship. However,

many of the positive attributes mentioned in the constructs (i.e. contributions to the

welfare of their community, a deepened sense of spirituality, contact with students who

are from different economic, social, racial backgrounds, understanding others

perspectives, and knowledge of academic and non-academic support agencies) seem to

have as much to do with the cultural norms (i.e. contributing to their community and a

deepened sense of spirituality), and the reality of their experience on a majority white

campus (i.e. contact with students from different economic, social, racial backgrounds,

understanding others perspectives, and knowledge of academic and non-academic

support agencies), as they do with faculty mentoring. The researcher did not ask

questions related to student's background and beliefs, thus the researcher is not able to

state with confidence that these high mean scores were solely based on faculty mentor engagement.

Impact of Faculty Mentoring and Gender on the Constructs

6. Do student and faculty mentor pairing and gender have an effect on sensitivity to diversity, effective communication, personal growth, personal and social development, practical competence, general education, support for student success, and reflective learning? And do the independent variables interact?

Student gender and faculty mentor paring showed a significant difference for all the NSSE constructs: personal and social development, support for student success, practical competence, general education, and reflective learning. There was no significant difference for the non-NSSE constructs (sensitivity to diversity, effective communication, and personal growth). However, concerning overall mean scores for all constructs, female students who had a faculty mentor assigned through their residence hall self-reported higher scores in comparison to their counterparts (i.e. female students who did not have a faculty mentor and male students who did or did not have a faculty mentor).

This finding is not surprising since the NSSE constructs deal with student engagement on campus and research shows that the more that students are engaged on campus the more they are apt to persist towards graduation (Tinto, 1993). In terms of gender and graduation rates a "substantial gap still remains overall favoring females who received around 800,000 BAs compared to males who received only about 600,000" each year (Chaplin & Klasik, 2006, p. 2). Women are also "not only more likely to enroll in college as freshmen than are men, but also to persist in college after the freshmen year" (Adebayo, 2008, p. 236). Women on average seem to be more involved during their

college years. However, the playing field tends to level off 'somewhat' between college

men and women as it concerns personal growth issues and the ability to deal effectively

with the developmental continuum. The latter of which is what the non-NSSE constructs

measure. While the research did not show a statistically significant difference, it did,

however, show that means scores for women were higher across the board than for men.

While both college age men and women deal with the maturation process in similar

fashion it would seem based on the mean scores that women are slightly ahead of the race

in terms of dealing with the challenges involved in personal and social development,

support for student success, practical competence, general education, and reflective

learning.

Turning to the male students, those who did not have a faculty mentor assigned

through the residence halls had higher mean scores for four of the constructs (support for

student success, practical competence, general education, and reflective learning) than the

male students who had a faculty mentor assigned through the residence halls. A study by

Sax (2008) found that both genders benefited from interaction with faculty however:

> Negative experiences appear to be particularly detrimental to women. Feeling
> dismissed by their professor may lead women to question their own understanding
> of a subject and the conclusions they draw; ultimately, this can heighten feelings
> of self-doubt and diminish longer-term interest in the subject. On the other hand,
> men seem to be particular beneficiaries of positive relations with faculty; in fact,
> those who report more positive or collaborative relations—such as feeling
> supported by faculty or working with faculty on research—tend to earn higher
> grades, develop greater confidence in their math abilities, and become more open
> minded in their career choices. (p. 213-214)

In this study it was evident that the female students benefitted from the faculty

mentor relationships, but the males students did not appear to have similar benefits. An

initial thought was that the major of study for the students may explain this divide since

the programs facilitated in the residence halls can be considered more "touchy-feely."

However, a two-way ANOVA analysis yielded no significant interaction between gender

and major as related to the constructs. A two-way ANOVA analysis also yielded no

significant interaction between gender and class standing and gender and ethnicity for the

constructs. These findings are certainly interesting since the researcher assumed that

having access to a faculty mentor would be beneficial to all students, regardless of their

gender. Magolda (1987) did find that female students prefer a learning environment that

allows them to watch and listen whereas male students prefer a learning environment that

allows them to debate various ideas. Hence, there could be additional factors that

account for this gender difference that were not considered during the study, such as the

gender of the faculty mentors, type of programs offered in the community, or different

learning styles for males as compared to females in a residential setting.

Effects of Faculty Mentor Program on NSSE and non-NSSE Constructs

The researcher hypothesized that there would be significant difference for NSSE

and non-NSSE constructs based on a student's involvement in the faculty mentor

program through the residence halls. NSSE constructs measured student engagement, and

non-NSSE constructs measured personal development and experiential learning. This

assumption was based on studies showing that students who lived in a residence hall and

have access to faculty and structured programs are more involved in co-curricular

activities (Johnson & Cavins, 1996), aware of resources available to them (Pike, 1997),

and engaged in cultural conversation (Cornwell & Guarasci, 1993).

Faculty mentor programs in the residence halls provide an informal setting for

students and faculty to engage in programs and dialogues that occur in a familiar and

comforting setting for students. Experiential learning outcomes hope to 'stir up questions' (McKeachie, 1994) that will be lead to reflection and learning.

Effects of Faculty Mentor Program on NSSE Constructs

7. Is there a difference in students' overall score on questions related to five NSSE constructs (practical competence, general education, personal and social development, support for student success, and reflective learning) based on the opportunity to work with a faculty mentor through residence halls or not for the following hypotheses:

    a) There is a significant difference as related to self-perception of gaining *practical competence* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

    b) There is a significant difference as related to self-perception of gaining *general education* between students who are exposed to the faculty mentor through the residence halls and those who are not.

    c) There is a significant difference as related to self-perception of *personal and social development* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

    d) There is a significant difference as related to self-perception of having *support for student success* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

    e) There is a significant difference as related to self-perception of engaging in *reflective learning* between students who are exposed to the faculty mentor program through the residence halls and those who are not.

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The researcher's hypothesis that there would be a significant difference for NSSE constructs based on a student's involvement in the faculty mentor program through the residence halls was only true for two out of the five NSSE constructs measuring student engagement. Those two constructs were personal and social development and general education. The personal and social development constructs measures statements such as these: contributes to the welfare of the community, votes in local, state, or national elections, and understands self and others. The general education construct measures statements such as these: writes and speaks clearly and effectively, participates in activities to enhance personal spirituality, and attends art exhibits, plays, music, or other performances.

Since personal and social development and general education constructs deal more with social and interactive skills, it is not difficult to see why the faculty mentor program would have a significant effect on students engaged in it. Student engagement in on-campus and community programs and gaining an understanding of self and others are critical as students try to fit in on a college campus. Having a faculty mentor seemed to facilitate growth in these areas. The program coordinators from the three schools involved in the survey agreed; they saw faculty mentors as a great resource in sharing campus and departmental information and encouraging student involvement in plays, musicals, and other program and events on campus.

Given that only two out of the five NSSE constructs had a significant difference as related to the faculty mentors assigned through a residence hall faculty mentor program, any generalizations should be made with caution. While benefits appear to

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exist, it is difficult to draw conclusions from this study that participation in a faculty

mentor program has an effect on student engagement at an institutional level.

Effects of Faculty Mentor Program on Non-NSSE Constructs

8. Is there a difference in student's overall score on questions related to the three

    non-NSSE constructs (sensitivity to diversity, effective communication, and

    personal growth) based on the opportunity to work with a faculty mentor through

    residence halls or not for the following hypotheses:

    a) There is a significant difference as related to self-perception of gaining

       sensitivity to diversity between students who are exposed to the faculty mentor

       program through the residence halls and those who are not.

    b) There is a significant difference as related to self-perception of gaining

       effective communication between students who are exposed to the faculty

       mentor program through the residence halls and those who are not.

    c) There is a significant difference as related to self-perception of *personal*

       growth between students who are exposed to the faculty mentor program

       through the residence halls and those who are not.

The non-NSSE constructs consisted of: personal growth, effective communication

and sensitivity to diversity. These constructs measure one's personal development and

learning. More specifically, the construct of personal growth measured one's response to

such concepts as increasing self-esteem and confidence, understanding personal strengths

and talents, and tapping creativity. The transition from high school to college can be an

intimidating one since students have to re-establish themselves in a new setting with a

new peer group and with a new set of expectations. The college environment also

challenges students to reflect on their beliefs and further define and determine their individual identity. Competence in the area of personal growth provides students with the tools necessary to work through these challenging times.

The construct of effective communication measured one's response to statements that involve understanding teamwork strategies, connecting to other students, and increasing ones comfort level in approaching other faculty members outside of the mentor program. Traditional-age students belong to the millennial generation and are accustomed to instant gratification, as well as a close and protective relationship with their parents (Howe & Strauss, 2007). In this technical age of instant messaging, tweets, and texting, basic communication skills can no longer be taken for granted. Campuses have a new challenge in helping students feel comfortable and ensuring that have the skills to engage face to face with faculty, staff, and peers. Millennial students are very comfortable and even seem to prefer texting or chatting online with their next door neighbors versus having face-to-face contact. Effective communication develops students' ability and confidence to engage in groups and make personal connections.

The final construct of sensitivity to diversity measured one's response to statements related to understanding of others, appreciating differences, and gaining a better understanding of personal values and attitudes. Sensitivity to and appreciation of diversity are critical in today's global society. This is especially true in light of the notion that today's millennial students do not see a need for diversity or sensitivity training since they see diversity all around them. It is not uncommon to hear from students who consider themselves to be diverse since they have friends who are of a different ethnicity.

With the above in mind, this study found that students who engaged with a faculty mentor assigned through their residence hall mentor programs self-reported higher scores in comparison to their peers who did not have a faculty mentor. Thus, the hypothesis was accepted that there would be a significant difference for non-NSSE constructs based on a student's involvement in the faculty mentor program through the residence halls, with analysis showing a significant difference for each of the non-NSSE constructs.

These findings support previous research that indicates interactions outside the classroom positively influence the student and faculty relationship (Pascarella &Terenzini, 1980), especially as it applies to personal development and experiential learning as defined in this research. The findings also supported that having a mentor through the residence halls helps students develop life skills, such as interacting with others and gaining a better understanding of self, which cannot be acquired through surfing on the internet (Marques, 2011; White, 2011).

Based on these findings, a number of inferences can be made. The first-year transition to college is arguably the most critical one. Educators have multiple opportunities to connect first-year students to the campus community, thus, hopefully increasing persistence to the second year. Since the sample population for this study consisted mainly of first-year students, it seems plausible to imply that interactions between faculty and students beyond the classroom might have a positive impact on personal development, as defined by the non-NSSE constructs: sensitivity to diversity, effective communication, and personal growth.

Given that all three non-NSSE constructs had a significant difference, showing there is some merit to continuing and promoting student-faculty engagement outside the

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classroom. The residence halls provide a unique opportunity for faculty members to work with students in an informal setting and in the "home" of the students, which seems to be comfortable environment for students to challenge themselves, learn, and grow.

Correlation Matrix for non-NSSE Variables

9) What are the associations among the three variables: personal growth, effective communication, and sensitivity to diversity?

> The three non-NSSE constructs were significantly correlated ($p < .001$). This means that students who self-reported a high score on one non-NSSE construct would most likely score high on the other two constructs.

Correlation Matrix for NSSE Variables

10) What are the associations among the five variables: practical competence, general education, personal and social development, support for student success, and reflective learning?

> The five NSSE constructs were significantly correlated ($p < .001$). This means that students who self-reported a high score on one NSSE construct would most likely score high on the other four constructs.

Multiple Regressions for Predictor Variables

11) How well does the combination of participation or non-participation in the faculty mentor program, club involvement, gender, generation of study, and ethnicity predict the eight constructs?

The combination of participation or non-participation in the faculty mentor program, club involvement, gender, generation of study, and ethnicity predict the eight

constructs did not produce any single strong predictor variables. Multicollinearity was checked for high intercorrelations among the predictor variable and none was found.

Student Recommendations about Faculty Mentoring Program

12) Do students see value in outside the classroom interaction with faculty members?

The following directional hypotheses were examined and tested in this study:

a. Students who are exposed to the faculty mentor program through the residence halls will have a higher score on recommendation that other students get to know faculty members outside the classroom than their peers without a faculty mentor through the residence halls.

b. Students who are exposed to the faculty mentor program through residence halls will score higher on the perception that faculty interaction outside the classroom is beneficial and important to their overall growth and maturity as an individual than their peers without a faculty mentor through the residence halls.

Students who transition to college while also trying to navigate their relationships with faculty can suffer major distress (Dusselier, Dunn, Wang, Shelley, & Whalen, 2005). Although, the directional hypotheses were rejected, students who had a faculty mentor through their residence hall recommended, based on their experience that other students should get to know a faculty person outside of the classroom. The study found 85% of students either agreed or strongly agreed that other students should get to know a faculty person outside of the classroom. The mean score for female students was 3.33 and 3.24 for male students which shows little variability but is contrary to the disparity in scores for the constructs as related to gender. When students were asked to describe their

faculty mentors; the most popular terms were mentor, resource person, counselor, and friend. All these terms point to demystifying the notion of faculty being unapproachable or disinterested in events and students outside of the classroom.

Recommendations for Further Studies

Males and females self-reported scores were almost opposite on the NSSE constructs. This inverse relationship is in itself worthy of further research. Women in college on average have a higher GPA, but men usually score higher in being confident. What social norms are in play for men and women in college? What are the different learning styles? Does gender play a role for faculty and students in reaching out to make the first contact? How are these connected to one's desire or ability to interact or not interact with faculty outside their traditional roles and responsibilities? Studies regarding these factors could bring light to these anomalies and more.

Also, do the perceptions that faculty have of current millennial students play a role in how faculty interact with students, both in and out of the classroom? What stereotypes do students have about faculty and do these thoughts change as students persist through college to graduation? Perceptions undoubtedly influence our thoughts and behaviors and future research should explore this dynamic in order to find areas of leverage that would allow faculty and students to interact in a more genuine and open way.

The research also indicated that the ethnicity of the students had a significant impact on the constructs. Future research could factor in the ethnicity of both the faculty and the students participating in the program. What are the challenges if the faculty mentor and the student mentee are from different ethnic backgrounds? What about if

they are from the same ethnic background? What lessons are learned for each of these scenarios? This type of research can lend more insight into the challenges of cross cultural relationships and might provide valuable information when paring up mentors and mentees.

An area that is not typically outlined in a faculty mentor program is the amount of time and interaction spent by a faculty mentor on their residence hall floor. Therefore, it would seem these programs are not measuring apples to apples when surveying the effectiveness of either a faculty mentor program or a specific faculty– student relationship. Therefore, future research that holds this variable constant will go a long way in helping to determine what components make up a successful mentor program and mentor – mentee relationship.

Finally, the study was limited to residence hall students only. A study that compared on-campus students with or without a faculty mentor to students who do not live on-campus might determine if there are inherent benefits of living on campus versus off campus.

Implications for Practice

Institutions considering implementing a faculty mentor program in their residence halls could use the results of this research in multiple ways. First-generation students benefited from the faculty mentor program more than those who were not first-generation students. Institutions are continually looking at factors to increase the retention of this at-risk population. It seems having a faculty mentor outside the classroom may have a larger impact with this student population.

Female students appeared to benefit more from the faculty mentor program than male students. Institutions may be able to capitalize on this by designing mentor programs specifically around women's issues and career opportunities. Also, institutions may need more specialized programs targeting the challenges that men have on a college campus especially since their overall retention rates are not as high as women. One thought might be to create communities with a faculty mentor for majors that are mostly male dominated, such as engineering and the sciences.

The research indicated that minority students benefited from the faculty mentor program more than majority students. Campuses may benefit from designing programs where mentors are available to meet with interested students or groups of students. This could be designed even during summer orientation programs.

Conclusion

In general, the data in this study indicated that faculty mentoring programs have a significant effect on student's personal development and learning with regard to a number of experiential factors. Students who had a faculty mentor through a residence hall mentor program scored higher on the non-NSSE constructs than students without a faculty mentor.

The faculty mentor program also had a significant effect on first generation, minority, and female students. First generation students benefited from the faculty mentor program more than non-first generation students. Female students benefited from the faculty mentor program more than male students. Minority students benefited from the faculty mentor program more than majority students. Also, students who responded to the

open ended question on the survey indicated that the mentor/mentee relationship impacted them in a significant way.

The overall findings for this study indicated that interactions outside the classroom positively influence the student and faculty relationship. The findings also supported that having a mentor through the residence halls helped students develop life skills such as interacting with others and gaining a better understanding of self that cannot be acquired through surfing on the internet.

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Page - Faculty Mentoring in Residence Halls Assessment

Q1 Please check the state school you are attending:

California*[Code = 1]*

Illinois*[Code = 2]*

Texas*[Code = 3]*

Required answers: 0   *Allowed answers: 1*

Q2 With which gender do you identify?

Male*[Code = 1]*

Female*[Code = 2]*

Transgender*[Code = 3]*

I choose not to respond.*[Code = 4]*

Required answers: 0   *Allowed answers: 1*

Q3 With which ethnic category do you most identify?

Asian/Pacific Islander*[Code = 1]*

Black/African American*[Code = 2]*

Latino(a)/Hispanic*[Code = 3]*

Middle Eastern*[Code = 4]*

Indigenous/Native American*[Code = 5]*

White*[Code = 6]*

Multiracial*[Code = 7]*

I prefer not to respond to this questions.*[Code = 8]*

Required answers: 0   *Allowed answers: 1*

Q4 Which of the following best describes your class standing?

Freshman*[Code = 1]*

Sophomore*[Code = 2]*

Junior*[Code = 3]*

Senior*[Code = 4]*

Graduate*[Code = 5]*

Required answers: 0   *Allowed answers: 1*

Q5 What is your major area of study?

[Code = 1] [Textbox]

Required answers: 0   *Allowed answers: 1*

Q6 Are you a member of at least one student club or organization this semester?

Yes*[Code = 1]*

No*[Code = 2]*

	Required answers: 0	*Allowed answers: 1*

Q7 How many hours do you typically spend studying **each week**? (Please enter a whole number)

[Code = 1] [Textbox - Numeric]

	Required answers: 0	*Allowed answers: 1*

Q8 Are you the first in your family to go to college (i.e., neither of your parents/guardians or siblings have attended any college)?

Yes*[Code = 1]*

No*[Code = 2]*

	Required answers: 0	*Allowed answers: 1*

Next Page: Sequential

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

Q9 Acquiring a broad general education

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Q10 Acquiring job or work-related knowledge and skills

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Q11 Writing clearly and effectively

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Q12 Speaking clearly and effectively

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Q13 Thinking critically and analytically

Very much *[Code = 4]*

Quite a bit *[Code = 3]*

Some *[Code = 2]*

Very little *[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q14 Analyzing quantitative problems

Very much *[Code = 4]*

Quite a bit *[Code = 3]*

Some *[Code = 2]*

Very little *[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q15 Using computing and information technology

Very much *[Code = 4]*

Quite a bit *[Code = 3]*

Some *[Code = 2]*

Very little *[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q16 Working effectively with others

Very much *[Code = 4]*

Quite a bit *[Code = 3]*

Some *[Code = 2]*

Very little *[Code = 1]*

Required answers: 0   *Allowed answers: 1*

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

Q17 Voting in local, state, or national elections

Very much *[Code = 4]*

Quite a bit *[Code = 3]*

Some *[Code = 2]*

Very little *[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q18 Learning effectively on your own

Very much *[Code = 4]*

Quite a bit *[Code = 3]*

Some *[Code = 2]*

Very little *[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q19 Understanding yourself

Very much *[Code = 4]*

Some*[Code = 2]*		
Very little*[Code = 1]*		
	Required answers: 0	*Allowed answers: 1*

Q20 Understanding people of other racial and ethnic backgrounds

Very much*[Code = 4]*		
Quite a bit*[Code = 3]*		
Some*[Code = 2]*		
Very little*[Code = 1]*		
	Required answers: 0	*Allowed answers: 1*

Q21 Solving complex real-world problems

Very much*[Code = 4]*		
Quite a bit*[Code = 3]*		
Some*[Code = 2]*		
Very little*[Code = 1]*		
	Required answers: 0	*Allowed answers: 1*

Q22 Developing a personal code of values and ethics

Very much*[Code = 4]*		
Quite a bit*[Code = 3]*		
Some*[Code = 2]*		
Very little*[Code = 1]*		
	Required answers: 0	*Allowed answers: 1*

Q23 Contributing to the welfare of your community

Very much*[Code = 4]*		
Quite a bit*[Code = 3]*		
Some*[Code = 2]*		
Very little*[Code = 1]*		
	Required answers: 0	*Allowed answers: 1*

Q24 Developing a deepened sense of spirituality

Very much*[Code = 4]*		
Quite a bit*[Code = 3]*		
Some*[Code = 2]*		
Very little*[Code = 1]*		
	Required answers: 0	*Allowed answers: 1*

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

Q25 Attended an art exhibit, play, dance, music, theater, or other performance

Very often*[Code = 4]*		
Often*[Code = 3]*		
Sometimes*[Code = 2]*		
Never*[Code = 1]*		
	Required answers: 0	*Allowed answers: 1*

Q26 Exercised or participated in physical fitness activities	
Very often *[Code = 4]*	
Often *[Code = 3]*	
Sometimes *[Code = 2]*	
Never *[Code = 1]*	
Required answers: 0	*Allowed answers: 1*

Q27 Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.)	
Very often *[Code = 4]*	
Often *[Code = 3]*	
Sometimes *[Code = 2]*	
Never *[Code = 1]*	
Required answers: 0	*Allowed answers: 1*

Q28 Examined the strengths and weaknesses of your own views on a topic or issue	
Very often *[Code = 4]*	
Often *[Code = 3]*	
Sometimes *[Code = 2]*	
Never *[Code = 1]*	
Required answers: 0	*Allowed answers: 1*

Q29 Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	
Very often *[Code = 4]*	
Often *[Code = 3]*	
Sometimes *[Code = 2]*	
Never *[Code = 1]*	
Required answers: 0	*Allowed answers: 1*

Q30 Learned something that changed the way you understand an issue or concept	
Very often *[Code = 4]*	
Often *[Code = 3]*	
Sometimes *[Code = 2]*	
Never *[Code = 1]*	
Required answers: 0	*Allowed answers: 1*

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

Q31 Spending significant amounts of time studying and on academic work	
Very much *[Code = 4]*	
Quite a bit *[Code = 3]*	
Some *[Code = 2]*	
Very little *[Code = 1]*	
Required answers: 0	*Allowed answers: 1*

Q32 Providing the support you need to help you succeed academically

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Q33 Encouraging contact among students from different economic, social, and racial or ethnic backgrounds

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Q34 Helping you cope with your non-academic responsibilities (work, family, etc.)

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Q35 Providing the support you need to thrive socially

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Q36 Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Q37 Using computers in academic work

Very much*[Code = 4]*

Quite a bit*[Code = 3]*

Some*[Code = 2]*

Very little*[Code = 1]*

	Required answers: 0	*Allowed answers: 1*

Please indicate your level of agreement with the following statements:

Q38 Interacting with faculty outside of the classroom is beneficial to my overall growth and maturity as an individual.

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0	*Allowed answers: 1*

Q39 I am comfortable networking with at least one faculty member on campus.

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0	*Allowed answers: 1*

Q40 Which of the following statements apply to you?

My residence hall community does have a faculty mentor.*[Code = 1]*

My residence hall community does not have a faculty mentor.*[Code = 2]*

Required answers: 0	*Allowed answers: 1*

Next Page: Sequential

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Q41 Which of the following statements apply to you?

I have a faculty mentor outside the residence hall community through my academic program.*[Code = 1]*

I do not have a faculty mentor.*[Code = 2] (Go To End)*

Required answers: 1	*Allowed answers: 1*

Display if Q40='My residence hall community does not have a faculty mentor.'

Next Page: Conditional

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Please indicate your level of agreement with the following statements:

Q42 I am aware that the housing office has a Faculty Mentor program.

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0	*Allowed answers: 1*

Q43 I am aware that a faculty mentor is assigned to my community.

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0	*Allowed answers: 1*

Q44 How do you hear about programs involving your faculty mentor? (Check all that apply)

E-mail message from RA*[Code = 1]*

Flyers/posters*[Code = 2]*

Online communities (Facebook, MySpace, etc.)*[Code = 3]*

From talking to peers/roommates*[Code = 4]*

From talking to my RA*[Code = 5]*

Other (please specify):*[Code = 6] [Textbox]*

Required answers: 0   *Allowed answers: 6*

Q45 How many programs have you participated in that involved your faculty mentor? (Please enter a whole number)

[Code = 1] [Textbox - Numeric]

Required answers: 0   *Allowed answers: 1*

Please indicate your level of agreement with the following statements:

Q46 My RA(s) is/are actively involved with my faculty mentor.

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q47 My faculty mentor is regularly involved in my community events.

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q48 I have had the opportunity to be involved in programs that involved my faculty mentor.

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q49 I understand the purpose of having a faculty mentor program.

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Please indicate your level of agreement with the following statements:

Participation in the faculty mentor program contributed to my growth and learning by...

Q50 Improving my interpersonal skills

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q51 Increasing my empathy for people whose background is different from my own

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q52 Increasing my knowledge about myself and my ability to get things done

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q53 Increasing my self-esteem and confidence

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q54 Enabling me to solve problems more effectively

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q55 Encouraging me to be more reflective

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q56 Stimulating my intellectual curiosity
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q57 Tapping my creativity
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q58 Gaining a better understanding of personal strengths and talents
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q59 Connecting me to the campus community
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Display if Q40='My residence hall community does have a faculty mentor.' OR Q41='I have a faculty mentor outside the residence hall community through my academic program.'

Please indicate your level of agreement with the following statements:

Participation in the faculty mentor program contributed to my growth and learning by...

Q60 Connecting me to other students
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q61 Learning to balance social activities with academic obligations
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q62 Increasing my comfort level to approach other faculty members
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q63 Becoming involved with additional campus activities
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q64 Understanding teamwork strategies
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q65 Helping me acquire knowledge and skills that will be useful to me in my major and career
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q66 Enabling me to apply knowledge from my courses to real-world situations
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q67 Increasing my understanding of others
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q68 Helping me appreciate differences among people
Strongly agree*[Code = 4]*
Moderately agree*[Code = 3]*
Moderately disagree*[Code = 2]*
Strongly disagree*[Code = 1]*
Required answers: 0   *Allowed answers: 1*

Q69 Gaining a better understanding of my values and attitudes

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Q70 Increasing my satisfaction with the collegiate experience

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Display if Q40='My residence hall community does have a faculty mentor.' OR Q41='I have a faculty mentor outside the residence hall community through my academic program.'

Q71 I would describe my faculty mentor as a... (Check all that apply)

Counselor*[Code = 1]*

Friend*[Code = 2]*

Mentor*[Code = 3]*

Mediator*[Code = 4]*

Professor*[Code = 5]*

Resourceful person on campus*[Code = 6]*

Other (please specify):*[Code = 7] [Textbox]*

Required answers: 0   *Allowed answers: 7*

Display if Q40='My residence hall community does have a faculty mentor.'

Q72 Based on the experience with my faculty mentor, I would recommend other residents get to know a faculty person outside of the classroom.

Strongly agree*[Code = 4]*

Moderately agree*[Code = 3]*

Moderately disagree*[Code = 2]*

Strongly disagree*[Code = 1]*

Required answers: 0   *Allowed answers: 1*

Display if Q40='My residence hall community does have a faculty mentor.'

Q73 If your faculty mentor made an impact on your college experience, is there a specific experience/story about your faculty mentor that you would like to share?

[Code = 1] [Textbox]

Required answers: 0   *Allowed answers: 1*

Display if Q40='My residence hall community does have a faculty mentor.' OR Q41='I have a faculty mentor outside the residence hall community through my academic program.'

DATE: October 31, 2011

TO: Linda Kuk, Education
Hemlata Jhaveri, Education

FROM: Janell Barker, IRB Administrator
Research Integrity & Compliance Review Office

TITLE: Faculty Mentoring in Residence Halls: An Experiential Learning Process

IRB ID: 128-12H **Review Date:** October 31, 2011

The Institutional Review Board (IRB) Administrator has reviewed this project and has declared the study exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b)(2): Research involving the use of educational tests,….survey procedures, interview procedures or observation of public behavior, unless: a) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects.

The IRB determination of exemption means that:

☐ **You do not need to submit an application for annual continuing review.**

☐ **You must carry out the research as proposed in the Exempt application**, including obtaining and documenting (signed) informed consent if stated in your application or if required by the IRB.

☐ **Any modification of this research should be submitted to the IRB through an email to the IRB Administrator, prior to implementing any changes**, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.

☐ **Please notify the IRB if any problems or complaints of the research occur.**

Please note that you must submit all research involving human participants for review by the IRB. **Only the IRB may make the determination of exemption**, even if you conduct a similar study in the future.

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