

THE RELATIONSHIP BETWEEN SERVICE LEARNING
AND STUDENT-FACULTY INTERACTIONS

By

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A thesis submitted in partial fulfillment of
the requirements for the degree of

MASTER OF ARTS in EDUCATION

WASHINGTON STATE UNIVERSITY
College of Education

DECEMBER 2008

To the Faculty of Washington State University:

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ACKNOWLEDGEMENT

I would like to take this opportunity to thank my thesis committee: Dr. Kelly Ward, Dr. Al Jamison, and Dr. Lali McCubbin. Each of you has contributed not only to the development of this thesis, but also to my own personal growth. I deeply appreciate the time you have committed and the knowledge you have shared. Simply put, you are all amazing. I feel very fortunate to know you and to have worked with you over the last year and a half. Thank you for your commitment to students and to the field of higher education.

I would also like to thank my husband, Dan, and my son, Jake. Without your support, encouragement, and understanding, this would not have been possible. As far as I am concerned, we have all earned this degree. Finally, I would like to thank my parents, Don and Kathy Burton, for teaching me that I can do whatever I set my mind to and be whoever I want to be. You are truly at the foundation of who I am and the drive I have to succeed. It is my goal to instill this same sense of motivation in Jake and his sibling(s).

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Abstract

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December 2008

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Service learning and student-faculty interactions are individually important in the role of overall academic achievement of students. In this study, data from the 2004 and 2006 National Survey of Student Engagement (NSSE) at Washington State University were analyzed to determine the factors comprising service learning and student-faculty interactions, to provide empirical evidence of the relationship between the two constructs, and to determine whether service learning can predict student-faculty interactions. Results demonstrated that service learning is comprised of two dimensions and student-faculty interactions is comprised of one dimension. In addition, a linear relationship was found to exist between the two constructs, with service learning explaining 20.1 percent of the variance for student-faculty interactions. Given the role service learning and student-faculty interactions play in student academic achievement and success, the results of this study have implications for future research and practice.

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CHAPTER ONE

INTRODUCTION

Given the positive impacts service learning and student-faculty interactions have on student success in college, further understanding of the interrelationship between the two constructs is important. Topics related to student success, departure, and persistence are at the forefront of higher education. Braxton (2000) edited a volume entitled *Reworking the Departure Puzzle* that examines different aspects of student departure as a way to more fully understand success and persistence. In this study, the notion of this puzzle is used as a way to prompt ongoing thinking about the different relationships and phenomenon that contribute to student success in college.

This thesis analyzes pre-existing data from the 2004 and 2006 National Survey of Student Engagement (NSSE) to determine the statistical relevance of the relationship between service learning and student-faculty interactions in order to gain a more comprehensive understanding of student success. Chapter One presents an introduction to the nature and importance of the research problem, a discussion on the purpose of the study, and the research questions that defined the data analysis in order to best understand the relationship between service learning and student-faculty interactions. Chapter Two includes a comprehensive literature review of service learning and of student-faculty interactions as they pertain to student success. Chapter Three offers a thorough review of the NSSE instrument, including the conceptual framework supporting it, and describes the methodology used for data collection and data analysis procedures. The results of the data analyses are presented in Chapter Four. Finally, Chapter Five discusses the results of the study, drawing on theoretical implications and offering recommendations for practice and for future research.

For purposes of this study, the term ‘service learning’ indicates a “teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities” (National Service Learning Clearinghouse, 2007). The term ‘student-faculty interactions’ in this study indicates any communication between students and their instructors, either in- or out-side of the classroom, including face-to-face contact, email communications, social interactions, or discussions pertaining to course work (Braskamp, Trautvetter & Ward, 2006; Chickering & Gamson, 1987; Cotten & Wilson, 2006; Kuh, Kinzie, Schuh, Whitt & Associates, 2005).

Nature and Importance of the Research Problem

While there has been a significant amount of research done on service learning and student-faculty interactions and their respective impacts on multiple student outcomes (Astin, 1993b; Kuh, 1995; Kuh & Hu, 2001; Pascarella & Terenzini, 1983, 2005), limited research has been completed on the relationship between the two concepts. Braskamp et al. (2006) suggest that involvement in service learning can lead to increased student-faculty interactions. Similarly, Kuh et al. (2005) found that service learning for students at high-performing institutions in their Documenting Effective Educational Practice (DEEP) project not only makes coursework more meaningful, but also allows students to get to know their faculty members in “more authentic ways by working closely with them over an extended period” (p. 204).

From the perspective of student development theory as it relates to student success, existence of such a relationship between service learning and student-faculty interactions has important implications. Service learning not only makes the college experience more meaningful by providing a link between the community and the classroom; it also leads to increased quality and quantity of student-faculty interactions (Kuh et al., 2005), which are “ultimately....about

learning and development” (Braskamp et al. 2006, p. 152). Based on this evidence, should a relationship between service learning and student-faculty interactions exist, students who engage in service learning would tend to have more interactions with their faculty members, the interactions would be of greater quality, and their levels of learning and development would be greater.

In addition, both service learning and student-faculty interactions have been shown to be positively correlated with academic achievement (Astin, 1993b), a key predictor of student retention (Pascarella & Terenzini, 1991). By gaining a better understanding of the relationship between service learning and student-faculty interactions, another piece of the student departure puzzle can be solved (Braxton, 2000). A positive, linear relationship would indicate that increased engagement in service learning projects could lead to a greater quality and quantity of student-faculty interactions, which would then lead to academic achievement and persistence. Figure 1 shows a theoretical pathway suggested by the literature (Astin, 1993b; Pascarella & Terenzini, 1991). The relationship examined in this study is demonstrated by a dotted line, as this relationship has only been partially examined in the literature.

Figure 1. Pathway to persistence, based on literature.

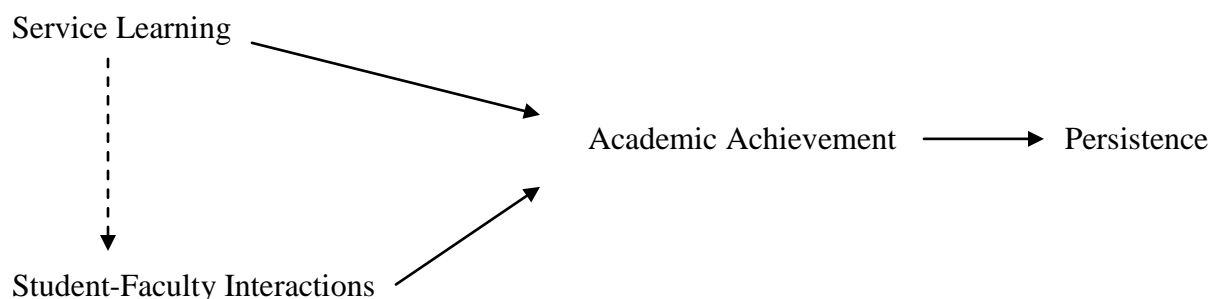


Figure 1. Pathway leading from service learning and student-faculty interactions to persistence, based on the literature.

Purpose of the Study

The purpose of this study is to explore the relationship between service learning and student-faculty interactions by analyzing data from the 2004 and 2006 National Survey of Student Engagement (NSSE) at Washington State University. In order to supplement the literature and to address the importance the relationship has on theory and practice in the field of higher education, the following research questions are examined:

Research Question One: What factors comprise service learning and student-faculty interactions?

Research Question Two: Does a relationship exist between service learning and student-faculty interactions?

Research Question Three: Does service learning affect student- faculty interactions?

The next chapter includes a comprehensive review of the literature relating to service learning and to student-faculty interactions as they pertain to student success.

CHAPTER TWO

LITERATURE REVIEW

Introduction

In order to better understand the nature and importance of a relationship between service learning and student-faculty interactions, it is important to gain an understanding of each construct independently. The following chapter discusses the significant positive impacts service learning and student-faculty interactions have on academic achievement and on student success. Included is a background and overview of each construct as well as connections of each to student success. Through gaining a deeper understanding of each construct, it can be better understood how a relationship between service learning and student-faculty interactions is important.

Service Learning

The concept of dedicating service to help others and to build community is at the heart of higher education. The Morrill Act of 1862 established land grant institutions and by the early 1900's theoretical foundations were beginning to be established for the notion of service learning as a pedagogy. In 1916, educator John Dewey, whose work continues to be considered by many as an important theoretical foundation supporting service learning (Giles & Eyer, 1994), wrote:

The scheme of a curriculum must take account of the adaptation of studies to the needs of the existing community life; it must select with the intention of improving the life we live in common so that the future shall be better than the past (p. 225)

Dewey's quote illustrates the intent of service learning: to link curriculum to community, making the world a better place for all to live and making education applicable and meaningful. As the

1900's advanced, service across the United States and abroad progressed. Between 1933 and 1942, the Civilian Conservation Corps gave youth the opportunity to serve the nation and to support their families by participating in restoration projects across the country (University of Minnesota, 2008). In 1944, the GI Bill linked service and education by offering Americans educational opportunities for serving their country (Titlebaum, Williamson, Daprano, Baer & Brahler, 2004). President John F. Kennedy took service abroad in 1961 by establishing the Peace Corps and four years later Volunteers in Service to America (VISTA) was established.

By the mid-1960s, more structured service learning programs came into existence (Bailey, Carpenter, & Harrington, 2002). Unfortunately, this trend did not continue into the 1970s due to budget cuts and lack of institutional support; however, educators and community leaders continued to rally for service learning programs. The 1971 report from the White House Conference on Youth contained several "calls for linking service and learning" (Titlebaum et al., 2004). By the end of the 1980s, programs once again found momentum from the support of administrators and the number of service learning models began to increase. In 1984, college students formed the Campus Outreach Opportunity League (COOL) as the first national student-led community service advocacy group (University of Minnesota, 2008). In 1985, the National Campus Compact, a national coalition of more than 1,100 college and university presidents representing over 6 million students by promoting community service, civic engagement, and service learning in higher education, was formed (Campus Compact, 2008a).

The passing of the National Community Service Act in 1990 aided the growth of service learning by providing federal funds for programs across the United States (Mintz & Liu, 1994). In 1993, President Bill Clinton signed into law the National Service bill, "establishing an unprecedented mandate to tackle the nation's pressing challenges through community service"

(Pew Health Professions Commission, Bureau of Health Professions, U.S. Public Health Service, & Corporation for National and Community Service, 1994, p. 5). In 1994, faculty interested in integrating service and learning established the Invisible College and in 1995, the first faculty award for service learning was created. Service learning as a global pedagogy was strengthened in 2001 with the formation of the first International Conference on Service Learning Research and to this day continues to bring recognition to the notion of a liberal, democratic education linking learning to civic engagement. In the 2006-2007 academic year, approximately 30 percent of students at over 1100 institutions nationwide were engaged in service (Campus Compact, 2008). At Washington State University in the 2007-2008 academic year, approximately 28 classes offered service learning through the Center for Civic Engagement (Personal Communication, Doty, 2008).

Service learning plays a significant role in success in the classroom and beyond. As a pedagogical practice, service learning can be distinguished from other forms of community service, volunteerism, or experiential learning in that a community-identified need is met through students' service, the service connects to the students' coursework, and reflection is used to evaluate students' personal experiences (Braskamp et al., 2006; Eyler & Giles, 1999; Reising, Allen & Hall, 2006). While participating in such experiences, students have the opportunity to gain a deeper sense of self-awareness, a stronger sense of community responsibility, and a better understanding of social and cultural issues in their communities, all of which contribute to ongoing civic engagement (Eyler & Giles, 1999). Service learning allows for holistic growth of students from the classroom to the community.

Student-Faculty Interactions

Similar to civic and academic engagement, student-faculty interactions have been shown to play an important role in several aspects of students' lives, including success and satisfaction in college (Astin, 1993a). Interactions between students and faculty impact the quality of instruction and the overall college experience and have "significant positive correlations with every academic attainment outcome: college GPA, degree attainment, graduating with honors, and enrollment in graduate or professional school" (p. 7). Astin (1978) found that student-faculty interaction has a stronger relationship to satisfaction with the college experience than any other involvement variable or any other student or institutional characteristic. Personal and intellectual growth, self-rated abilities, behavioral outcomes such as tutoring other students, perceptual outcomes such as diversity and social change orientation, and career and major choices are all positively correlated with student-faculty interactions (Astin, 1993b).

The positive correlations between student-faculty interactions and student satisfaction are indicative not only of classroom interactions, but also of experiences outside the classroom.

According to Cotten and Wilson (2006),

while the classroom may be a primary point of contact between faculty and students, the ability of faculty to contribute to the college experience of their students does not end when class is dismissed...research has shown that interactions between students and faculty that take place outside of the classroom have a significant impact on students (p. 488).

Cotten and Wilson (2006) refer to the work of Endo and Harpel (1982), Kuh (1995), Kuh and Hu (2001), and Tam (2002) to support this notion. Contact in and out of the classroom between students and faculty plays a major role in student development and satisfaction (Astin, 1993b).

The greatest impact for students is achieved by a combination of frequent interactions and a more focused nature for each visit (Kuh & Hu, 2001). For example, interactions with an “intellectual or substantive focus (e.g., career plans) as contrasted with an exclusively social exchange” (Kuh & Hu, 2001, p. 309) have the greatest impact on student satisfaction and development.

Student-faculty interactions are a key component of students’ college experiences. By interacting with faculty, students experience greater personal and intellectual growth, increased confidence, exposure to diverse cultures and ideas, and new perspectives on career options (Astin, 1993a). In addition, the quality and quantity of student-faculty interactions play a major role in student academic achievement and success. The next section further explores the theoretical foundations of student-faculty interactions and service learning as they relate to student satisfaction and success.

Student Success

Service learning and student-faculty interactions have both been positively correlated with student success and satisfaction (Astin, 1977, 1985, 1993, 1996; Bean, 1985; Bean & Kuh, 1984; Chickering & Gamson, 1987; Kuh et. al, 2007; Kuh et al., 1991; Kuh, Schuh, Whitt & Associates, 1991; Pascarella, 1985; Pascarella & Terenzini, 1976, 1979, 1983, 1991, 2005; Strange & Banning, 2001; Tinto, 1975, 1993). Because service learning is a form of student engagement, it is strongly supported by theories of student success. The more engaged a student is, the more likely he or she is to be academically and socially integrated into the institution and the greater the likelihood of success. In particular, the work of Chickering and Gamson (1987), Pascarella and Terenzini (1983, 2005), Tinto (1975), Strange and Banning (2001), Kuh et al. (1991), and Astin (1996) support individual components of student success theory related to

student engagement, integration, success, and, ultimately, persistence. Given the larger goal of the study to understand determinants of student success, it is helpful to more fully understand the concepts of engagement and integration in the role of student success.

In 1987, Chickering and Gamson edited the *Seven Principles for Good Practice in Undergraduate Education*. These principles, including student-faculty contact, reciprocity and cooperation among students, active learning techniques, prompt feedback, time on task, communicating high expectations, and respecting diverse talents and ways of learning, highlight best management practices for colleges and institutions. As noted by Kuh, Kinzie, Buckley, Bridges, and Hayek (2007), “Generally speaking, the more students engage in these kinds of activities, the more they learn and the more likely they are to persist or graduate from college” (p.43). Put another way, when institutions use these principles, students become more engaged in, and gain more from, every aspect of their college experience (Pascarella & Terenzini, 2005). Service learning is a form of engagement that falls under Chickering and Gamson’s (1987) third principle of active learning techniques. Based on Kuh, et al. (2007) and Pascarella and Terenzini (2005), service learning, as an active learning technique, will allow students to learn more, to have a more valuable college experience, and to be more successful.

While engagement is one component impacting student success, integration is a second, equally important factor. In 1975, Vincent Tinto offered the Interactionist Theory, which suggested that students who are more integrated, both academically and socially, have a greater propensity to persist than students who are not integrated. According to Interactionist Theory, institutional structure and culture play a significant role in students’ ability to integrate and the levels of each type of integration affect students’ future goals of graduation and institutional commitment (Tinto, 1975). Strange and Banning (2001) add to this notion of the importance of

institutional climate by offering the Hierarchy of Learning Environment Purposes. In this hierarchy, institutions must first create a safe and inclusive environment in order to give students a sense of belonging and security. Once the environment is safe, it must provide several opportunities for involvement, including participation, engagement, and role-taking. Finally, in order to obtain the fullest learning experience, students must feel that they are part of a community, in which “environmental goals, structures, values, people, and resources come together in a seamless experience for purposes of self-actualization and fulfillment” (Braxton, 2003, p. 310). This hierarchy demonstrates the important role institutional climate plays in providing a supportive environment for student engagement and participation and for ensuring students’ integration and success.

Service learning provides students with opportunities for both academic and social integration and provides them with the opportunity to become involved not only at their institution, but also in their community. Researchers agree that the more students are involved in and out of the classroom the more they will be academically and socially integrated into the institutional system (Astin, 1996; Braxton, 2003; Kuh et al., 1991; Pascarella & Terenzini, 1983; Tinto, 1993). Students who feel more integrated in the system tend to persist (Tinto, 1975, 1993), leading to success not only for the student, but also for the institution.

Student-faculty interactions also play an important role in college student success and satisfaction (Astin, 1977, 1985, 1993; Bean, 1985; Bean & Kuh, 1984; Education Commission of the States, 1995; Ewell, 1989; Feldman & Newcomb, 1969; Kuh & others, 1991; Kuh et. al, 2007; Lamport, 1993; Pascarella, 1985; Pascarella & Terenzini, 1976, 1979, 1991, 2005; Terenzini, Pascarella & Blimling, 1996; Terenzini, Springer, Pascarella & Nora, 1995; Tinto, 1993). In addition to being linked to academic achievement, students who interact more with

their faculty members tend to receive better grades and may remain in school through graduation, meaning greater financial success for the college or university. Contact between students and faculty is the first of Chickering and Gamson's (1987) *Seven Principles for Good Practice in Undergraduate Education*. In fact, Chickering and Gamson state, "[f]requent student-faculty contact in and out of classes is the most important factor in student motivation and involvement" (p. 3). In addition to receiving higher grades, students who interact more frequently with their professors tend to be more involved on campus, resulting in both social and academic integration, and, therefore, a greater tendency to persist (Tinto, 1993).

It is evident from the literature that service learning and student-faculty interactions are both positively related to student success and persistence (Tinto, 1993). Further, research suggests that involvement in service learning can lead to increased student-faculty interactions (Braskamp et al., 2006; Kuh et al. 2005). Based on an understanding of the literature, this study seeks to more closely examine the relationship between service learning and student-faculty interactions in order to more fully understand the factors related to academic achievement and student success. The next chapter outlines the methodology used in this study to provide insight into the factors comprising each construct and the relationship that exists between the two. Included in the discussion is an in-depth review of the NSSE instrument and the theoretical framework by which it is supported.

CHAPTER THREE

RESEARCH METHODS

This study uses a hierarchical regression analysis design to examine archival data from the National Survey of Student Engagement (NSSE). The goals of the study are to determine (a) the factors comprising service learning and student-faculty interactions, (b) whether a relationship exists between service learning and student-faculty interactions, and (c) whether service learning affects student-faculty interactions. This chapter includes a description of the participants of the study, an in-depth review of the NSSE instrument, and the data collection and data analyses procedures.

Participants

The participants in this study are a randomly selected sample of 2304 students from Washington State University who completed the National Survey of Student Engagement (NSSE) in 2004 or 2006. The majority of participants were freshman (41%) and senior (45%) students. Other participants either did not indicate their status on the survey or indicated other levels. Approximately 1014 men and 1391 women took the surveys, and the mean age was 22 years.

The next section provides a background and overview of the NSSE instrument in order to clarify the role the instrument plays in understanding student success. Included in the discussion is the theoretical framework supporting the instrument as well as a discussion on the credibility, validity, and reliability of the instrument.

Instrument

Background and Overview. The National Survey of Student Engagement (NSSE) has played a large role in understanding student success and engagement and is the instrument used

in this study. To gain a better understanding of the relationship between service learning and student faculty interactions, this study is based on secondary analyses of pre-existing NSSE data at Washington State University. Supported by a grant from the Pew Charitable Trusts, the NSSE was established in 1998 as the survey instrument for *The College Student Report* (National Survey of Student Engagement, 2008). The survey was created in response to increased governmental oversight and was based on research demonstrating that “the degree to which students are engaged in their studies impacts directly on the quality of student learning and their overall educational experience” (National Survey of Student Engagement, 2008, Paragraph 2) and that “particular classroom activities and specific faculty and peer practices [are related] to high-quality undergraduate student outcomes” (Paragraph 4). Essentially, the NSSE plays a dual role of providing a method for directly gathering data about students’ experiences and of providing a tool of accountability, ensuring that institutions of higher education are offering a high-quality education to undergraduate students.

Several key individuals in the field of higher education, including Alexander Astin, Gary Barnes, Arthur Chickering, Peter Ewell, John Gardner, George Kuh, Richard Light, Ted Marchese, and C. Robert Pace, made up the Design Team that established the first survey in 1998 (National Survey of Student Engagement, 2008). The instrument was made with several qualities in mind. The survey needed to: (a) convey college student outcomes determined by existing research, (b) be applicable at both public and private four-year institutions, (c) be administered to approximately 450-1000 students in freshman and senior standing, (d) have the ability to be tailored to specific college or university needs, and (e) be administered by an external third party (NSSE, 2008). Field tests were conducted in 1999 and in 2000, 275 colleges and universities took part in the first administration of the survey. The NSSE has since evolved

to include questions from other student surveys, such as the College Student Experiences Questionnaire (CSEQ), the Cooperative Institutional Research Program (CIRP) freshman and follow-up surveys, and student and alumni surveys administered by the University of North Carolina (NSSE, 2008).

Theory. The conceptual framework for NSSE is clearly outlined by Kuh (2003) in *The National Survey of Student Engagement: Conceptual Framework and Overview of Psychometric Properties*. In this document, Kuh grounds the NSSE instrument in college student development theory, citing the work of Astin (1993), Pascarella and Terenzini (1991), and Pace (1985). Kuh mentions that “the time and energy students devote to educationally purposeful activities is the single best predictor of their learning and personal development” (p. 1). Kuh further adds: “[t]hose institutions that more fully engage their students in the variety of activities that contribute to valued outcomes of college can claim to be of higher quality compared with other colleges and universities where students are less engaged” (p.1). The NSSE is intended to measure college experience outcomes and to determine their impact based on students’ responses to directly related questions.

Because the NSSE focuses on college outcomes and on the role of student engagement in attaining those outcomes, Kuh (2003) notes the conceptual framework also rests on certain practices that have been shown to be more effective in achieving student engagement. Some of the most well-known practices Kuh mentions are Chickering and Gamson’s (1987) *Seven Principles for Good Practice in Undergraduate Education*. As a collective set, these practices are intended to provide faculty and students with a way to improve the undergraduate experience by influencing activity, cooperation, diversity, expectations, interaction, and responsibility (Chickering & Gamson, 1987).

In addition to improving best practices, the NSSE strives to provide data to improve institutional atmosphere. Kuh (2003) references the work of the Education Commission of the States (1995), Kuh (2001), Kuh et al. (1991), and Pascarella (2001), who agree that “environments that are perceived by students as inclusive and affirming and where expectations for performance are clearly communicated and set at reasonably high levels” (p. 1) are essential to the student learning process. Furthermore, research indicates that such an inclusive and supportive environment positively correlates to student satisfaction and achievement in many ways (Astin, 1984, 1985, 1993; Bruffee, 1993; Goodsell, Maher & Tinto, 1992; Johnson, Johnson & Smith, 1991; McKeachie, Pintrich, Lin & Smith, 1986; Pascarella & Terenzini, 1991; Pike, 1993; Sorcinelli, 1991, as cited in Kuh, 2003). By fostering a positive environment and employing best practices, college and university administrators and staff can expect to see improvements in the success of their students, particularly in “such areas as critical thinking, problem solving, effective communication, and responsible citizenship” (Kuh, 2003, p.1). The NSSE assists colleges and universities in determining which factors are most important to students and which factors will allow for the greatest amount of growth, which will improve the overall success of the institution.

Credibility. In addition to presenting the conceptual framework for the NSSE instrument, Kuh’s (2003) report provides strong empirical support for its credibility. In particular, the work of Baird (1976), Berdie (1971), Pace (1985), Pike (1995), Pohlmann and Beggs (1974), and Turner and Martin (1984) closely reviews the validity and credibility of self-reported data. Despite certain views that student self-reported data can be skewed, Kuh (2003) notes a large body of evidence “shows that students are accurate, credible reporters of their activities and how much they have benefited from their college experience, provided that items are clearly worded

and students have the information required to accurately answer the questions” (p. 4). Further, the work of Bradburn and Sudman (1988), Brandt (1958), Converse and Presser (1989), DeNisi and Shaw (1977), Hansford and Hattie (1982), Laing, Swayer and Noble (1989), Lowman and Williams (1987), Pace (1985), and Pike (1995) suggest five general conditions under which self-report data are valid (Kuh, 2003). These conditions include:

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

Kuh (2003) notes that the NSSE instrument, or The College Student Report, meets all of these criteria.

In addition to producing credible results, the NSSE instrument has proven to be both reliable and valid, as described in full detail on the NSSE website (2007) and directly translated in the following sections.

Reliability. To assure reliability, test-retest analysis was conducted in 2002 (1226 respondents) and again in 2005 (1536 respondents) and results were similar (NSSE, 2007). The reliability coefficients in 2002 for the following benchmarks were 0.74: level of academic challenge, active and collaborative learning, and enriching educational experiences. Student responses for items related to student-faculty interaction had a reliability coefficient of 0.75. In 2005, the reliability coefficient for student-faculty interaction was 0.70. Reliability coefficients for the three benchmarks previously mentioned were 0.69, 0.72, and 0.74, respectively, indicating little variation in student responses from one testing period to the next.

In addition to the test-retest analysis, NSSE (2007) reported that a stability analysis was conducted to measure the strength of the associations between benchmark scores for 214 institutions that participated in the 2002 and 2003 survey administrations, and again in the 2004 and 2005 administrations. Benchmark scores were calculated using unweighted student responses to survey items that were similar and little discrepancy was found among correlations from the four administrations. According to the NSSE website, “these findings suggest that institution-level NSSE data are relatively stable from year to year” (NSSE, 2007).

Validity. The Design Team that developed the NSSE instrument “devoted considerable time during 1998 and 1999 making certain the items on the survey were clearly worded, well-defined, and had high face and content validity” (NSSE, 2007). Logical relationships exist between the items in ways that are consistent with the results of objective measures and with other research. The responses to the survey items are approximately normally distributed and the patterns of responses to different clusters of items (College Activities, Educational and Personal Growth, Opinions about Your School) discriminate among students both within and across major fields and institutions. Factor analysis, which NSSE (2007) indicates as an “empirical approach to establishing construct validity (Kerlinger, 1973),” was used to identify the underlying properties of student engagement represented by items on NSSE.

The NSSE instrument is a reliable, credible, valid instrument grounded in student development theory. Because of its role in understanding student success and engagement, the NSSE instrument is ideal for examining the relationship between service learning and student-faculty interactions. The next sections present the collection of NSSE data from Washington State University as well as the data analyses conducted in this study.

Data Collection

Data from the 2004 and 2006 administrations of the NSSE was received from the Washington State University Student Affairs Research and Assessment Office on February 4, 2008, following approval from the Institutional Review Board on Jan. 28, 2008. The data was de-identified and sent in SPSS format through electronic mail. Questions from the NSSE were selected based on their relation to service learning, student engagement, and student-faculty interactions based on the literature and on prior knowledge from working in the field of higher education. While data for several questions was requested, not all was used in the final analyses as further face validity analyses indicated not all questions were related to the topic areas. Table 1 in Appendix A delineates the NSSE data requested. Tables 3 and 4 in Appendix B and C, respectively, show the variables comprising the service learning and student-faculty interactions constructs, as determined by face validity analysis described in Stage II of the Data Analysis section. Samples of the 2004 and 2006 instruments can be found on the NSSE website: http://nsse.iub.edu/html/survey_instruments_2008.cfm.

Data Analysis

To gain a deeper understanding of service learning and student-faculty interactions as they relate to college student achievement, success, and persistence, this study aims to answer the following research questions:

1. What factors comprise service learning and student-faculty interactions?
2. Does a relationship exist between service learning and student-faculty interactions?
3. Does service learning affect student- faculty interactions?

In order to address these questions, data analyses took place in six stages. In summary, Stage I entailed organizing the data to ensure a high quality data set and to manage missing variables. Stages II, III, and IV included conducting face validity analysis, factor analysis, and reliability analysis, respectively, and were used to answer research question one. In Stage V, correlations using Pearson's correlation coefficient were conducted in order to answer research question two. Finally, Stage VI answered research question three using multiple regression analysis. Details of each stage are discussed in the following section.

Stage I: Data Organization. The goal of Stage I was to ensure a high quality data set for analyses and to determine the appropriate means of managing missing variables and outlying scores. Due to the possibility that missing data may not have been dispersed randomly, analyses were carried out using only complete cases. A total of 102 incomplete cases were removed from the analyses.

Stage II: Face Validity Analysis. The goal of Stage II was to analyze the data for face validity based on an understanding of the literature to determine which variables were associated with each construct (research question one). Survey questions were then sorted into either the service learning construct, shown in Table 2 in Appendix B, or the student-faculty interactions construct, shown in Table 3 in Appendix C, using this process. For example, question 1k, "In your experience at your institute during the current school year, about how often have you participated in a community- based project (e.g., service learning) as part of a regular course?" was placed within the service learning construct. Questions 1m through 1s directly relate to the student-faculty interactions construct and ask, for example, "how often have students used e-mail to communicate with an instructor" (1m), "discussed grades or assignments with an instructor" (1n), "discussed ideas from your readings or classes with faculty members outside of class" (1p),

or “worked with faculty members on activities other than coursework (committees, orientation, student-life activities, etc.)” (1s). A more comprehensive view of the questions selected for each construct can be found in Appendices B and C.

Stage III: Factor Analysis. The goal of Stage III was to determine the validity of the constructs established in Stage II using exploratory factor analysis. The sections below describe the methods involved in the two steps of this process: factor extraction and factor rotation.

Factor extraction. The goal of the first step of factor analysis was to “make an initial decision about the number of factors underlying a set of measured variables” (Green & Salkind, 2008, p. 314). In this study, principal components analysis was used to extract factors based on the amount of variability each had among the variables. Decisions were made based on the absolute and relative magnitudes of the eigenvalues, or variabilities, of each factor. In addition, as suggested by Green and Salkind (2008), “initial decisions [were made] about the number of factors based on a priori conceptual beliefs about the number of underlying dimensions” (p. 315). The SPSS program was used to complete the factor extraction process as well as to rotate the factors.

Factor Rotation. The goals of the second step of factor analysis were “(1) to statistically manipulate (i.e., to rotate factors) the results to make the factors more interpretable and (2) to make final decisions about the number of underlying factors” (Green & Salkind, 2008, p. 314). In this study, the most popular method for rotating variables, VARIMAX rotation, was used to yield orthogonal factors, which are statistically uncorrelated components and “can represent a more complex set of arrangements” (Dobson, Lepnurm, & Struening, 2005, p. 264). Producing orthogonal factors, as opposed to producing oblique factors, more clearly identified the components within, and the relationship between, the constructs.

Stage IV: Reliability Analysis. The goal of Stage IV was to analyze the reliability of each construct. Following factor analysis, items were grouped into constructs according to factor loadings with 0.300 as the lower cut-off. Reliability of the constructs was then determined using Cronbach's alpha and total inter-item correlations. Alphas greater than 0.70 were considered acceptable for construct reliability.

Stage V: Correlation. The goal of Stage V was to determine whether a relationship exists between service learning and student-faculty interactions (research question two). Descriptive statistics and Pearson correlation coefficients were computed using SPSS. Included in the computations were mean, standard deviation, and N for age, gender, the two dimensions of service learning determined in Stages II through IV: (a) civic awareness and (b) critical thinking and application, and the one dimension of student-faculty interactions also determined in Stages II through IV. Correlations among the two dimensions of service learning and between each dimension and student-faculty interactions were then computed using SPSS. Correlations greater than .500, $p < .01$, were deemed as strong positive associations.

Stage VI: Multiple Regression Analysis. The goal of Stage VI was to determine whether service learning affected student-faculty interactions (research question three). Multiple regression analysis was used to predict the amount of variance explained by service learning, the predictor, on student-faculty interactions, the outcome, while controlling for age and gender. R-square change was used to determine the percent of variance explained and significance levels were set to $p < .01$. In addition, beta weights and t , $p < .05$, were calculated to determine whether the variance explained by age and gender had an impact on student-faculty interactions.

In summary, the goals of completing the six stage process described in this section were to answer each research question by (a) ensuring the quality of the data set and determining the

appropriate means of managing missing variables and outlying scores, (b) sorting variables into the constructs of service learning and student-faculty interactions based on an understanding of the literature, (c) determining the statistical coherence of the variables by completing a factor analysis, (d) testing the reliability of the constructs using Cronbach's alpha and total inter-item correlations, (e) determining whether a relationship existed between service learning and student-faculty interactions using Pearson's correlation coefficient, and (f) predicting the amount of variance explained by service learning (predictor) on student-faculty interactions (outcome).

Limitations

As with any study, this study has some limitations. Primarily, the study focuses solely on the relationship between service learning and student-faculty interactions at Washington State University (WSU). Data from students at other colleges or universities are not included. Additionally, although Washington State University has gathered NSSE data for years prior to 2004 and 2006, this study focuses only on those two years of data. Data was collected in 2000 and 2002 as part of a pilot project, with the data from 2002 having few respondents. As a result, the Research and Assessment Office will only provide 2004 and 2006 data for this study. Finally, because students are freshman and seniors when taking the survey, it is not likely that the same student will have taken the survey as a freshman and as a senior, so little, if any, longitudinal data is available for analysis.

CHAPTER FOUR

RESULTS

The goal of this study is to explore the relationship between service learning and student-faculty interactions by analyzing data from the 2004 and 2006 National Survey of Student Engagement (NSSE) at Washington State University. The study addresses the following research questions:

1. What factors comprise service learning and student-faculty interactions?
2. Does a relationship exist between service learning and student-faculty interactions?
3. Does service learning affect student- faculty interactions?

The following section discusses the results of data analyses as they pertain to each research question.

What Factors Comprise Service Learning and Student-Faculty Interactions?

The first stage of data analyses was to organize the data and account for missing variables. In Stage II, face validity analysis was completed based on an understanding of the literature to determine which variables were associated with each construct. Factor analysis and reliability analysis were then completed in Stages III and IV, respectively, to determine the validity and reliability of the constructs. Factor analysis in Stage III revealed one dimension of student-faculty interactions and two dimensions of service learning: (a) civic awareness and (b) critical thinking and application. Tables 4, 5, and 6 delineate the variables composing each factor as determined through factor analysis.

While Stages II through IV delineated the variables comprising service learning and student-faculty interactions, Stage V determined if a relationship existed among the two

Table 4. Variables Comprising First Dimension of Service Learning Construct Determined Through Factor Analysis

Table 4
Civic Awareness

Civic Awareness (alpha = .832)

1. Voting in local, state, or national elections
2. Understanding yourself
3. Understanding people of other racial or ethnic backgrounds
4. Solving complex real-world problems
5. Developing a personal code of values and ethics
6. Contributing to the welfare of your community
7. Encouraging contact among students from different backgrounds

Table 5. Variables Comprising Second Dimension of Service Learning Construct Determined Through Factor Analysis

Table 5
Critical Thinking and Application

Critical Thinking and Application (alpha = .719)

1. Acquiring a broad general education
2. Acquiring job- or work-related knowledge and skills
3. Thinking critically and analytically
4. Working effectively with others

Table 6. Variables Comprising Student-Faculty Interactions Construct Determined Through Factor Analysis

Table 6
Student-Faculty Interactions

Student-Faculty Interactions (alpha = .758)

1. Used e-mail to communicate with an instructor
2. Discussed grades or assignments with an instructor
3. Talked about career plans with a faculty member or advisor
4. Discussed ideas from your readings or classes with faculty members outside of class
5. Received prompt written or oral feedback from faculty on your academic performance
6. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)

constructs. Stage VI further clarified the relationship by determining the amount of variance explained by service learning on student-faculty interactions. Results from Stages V and VI are presented in the next sections.

Does a Relationship Exist Between Service Learning and Student-Faculty Interactions?

The goal of Stage V in the data analyses was to further examine the relationship between service learning and student-faculty interactions. Descriptive statistics, shown in Table 7, and Pearson correlation coefficients, shown in Table 8, were computed using SPSS to determine if a relationship existed between the two constructs. Analysis of the Pearson’s correlation coefficients indicated a statistically significant linear relationship between civic awareness and student-faculty interactions ($r = .443, p < .01$) and between critical thinking and application and student-faculty interactions ($r = .367, p < .01$). In addition, a statistically significant relationship existed between civic awareness and critical thinking and application ($r = .605, p < .01$). These results provide empirical support that a relationship exists between service learning and student-faculty interactions.

Table 7. Descriptive Statistics for Age, Sex, Two Dimensions of Service Learning and One Dimension of Student-Faculty Interactions

Table 7
Descriptive Statistics

	Mean	Std. Deviation	N
Age	22.16	10.901	2242
Sex	1.59	.492	2242
Civic Awareness	23.8559	5.38465	2242
Critical Thinking	11.7846	2.46284	2242
Student Faculty Interactions	13.7462	3.34953	2242

Table 8. Pearson Correlations for Age, Sex, Two Dimensions of Service Learning and One Dimension of Student-Faculty Interactions

Table 8

Pearson Correlations (N=2242)

	Civic Awareness	Critical Thinking and Application	Student-Faculty Interactions
Age	.028	.066**	.107**
Sex	.057**	.055**	.043*
Civic Awareness	1.00	.605**	.433**
Critical Thinking	.605**	1.00	.367**
Student Faculty Interactions	.443**	.367**	1.00

** significant at .01

* significant at .05

Does Service Learning Affect Student-Faculty Interactions?

Once it was determined that a relationship existed, multiple regression analysis was used to predict the amount of variance explained by service learning, the predictor, on student-faculty interactions, the outcome. Controlling for age and gender, multiple regression analysis indicated that 20.1 percent of the variance was explained by service learning, $p < .01$. Although age and gender accounted for a small amount of the variance (1.4 percent), age was the only significant demographic variable when taken into consideration with the predictor variables. These results indicate that service learning affects student-faculty interactions.

Summary

In summary, the results of analyses for Stages II through VI show that the student-faculty interactions construct is comprised of one dimension, while the service learning construct is comprised of two dimensions. The two dimensions of service learning, (a) civic awareness and (b) critical thinking and application, are based on thematic qualities of the variables comprising each factor as well as on literature supporting each dimension (Astin, 1993b; Cook, 2008; Cotten

& Wilson, 2006; Endo & Harpel, 1982; Erhlich, 2000; Eyler & Giles, 1999; Giroux, 2000; Graham & Cockriel, 1997; Jones & Hill, 2000; Kendall, 1990; Kuh, 1995; Kuh & Hu, 2001; Ramaley, 2000; Tam, 2002; and Vogelgesang & Astin, 2000).

Analyses in Stage V show that a significant, linear relationship exists between service learning and student-faculty interactions. Correlations using Pearson's coefficient demonstrate that civic awareness and critical thinking and application are associated with student-faculty interactions as well as with one another. Further, multiple regression analysis in Stage VI indicates that 20.1 percent of the variance is explained by service learning while controlling for age and gender, solidifying the existence of a relationship between the two constructs. The focus of the next chapter is further discussion of the analyses and recommendations for future research and practice.

CHAPTER FIVE

DISCUSSION

As institutions across the country seek to find ways to increase retention rates and to improve student success and satisfaction, the results of this study are timely and important. By determining (a) the factors comprising service learning and student-faculty interactions, (b) whether a relationship exists between service learning and student-faculty interactions, and (c) whether service learning affects student-faculty interactions, the role of the relationship between service learning and student-faculty interactions can be better understood with respect to academic achievement and persistence. In other words, by understanding the relationship between service learning and student-faculty interactions, another piece of the student departure puzzle (Braxton, 2000) can be addressed. The following sections discuss the results of this study as they pertain to each research question and offer recommendations for future research and practice.

What Factors Comprise Service Learning and Student-Faculty Interactions?

Factor analysis was used to determine the components of service learning and student-faculty interactions. Supported by the literature, student-faculty interactions was found to have one dimension and service learning was found to have two dimensions: (a) civic awareness and (b) critical thinking and application (Astin, 1993; Cook, 2008; Cotton & Wilson, 2006; Endo & Harpel, 1982; Erhlich, 2000; Eyler & Giles, 1999; Giroux, 2000; Graham & Cockriel, 1997; Jones & Hill, 2000; Kendall, 1990; Kuh, 1995; Kuh & Hu, 2001; Ramaley, 2000; Tam, 2002; Vogelgesang & Astin, 2000). Each dimension was named based on the underlying theme of the variables of which it was comprised. The next sections discuss each factor as they relate to the literature.

Service Learning, Dimension One: Civic Awareness. Factor analysis determined that the first dimension of service learning, civic awareness, is comprised of the following variables: (a) encouraging contact among students from different backgrounds, (b) voting in local, state, or national elections, (c) understanding yourself, (d) understanding people of other racial and ethnic backgrounds, (e) solving complex real-world problems, (f) developing a personal code of values and ethics, and (g) contributing to the welfare of your community. The classification of these variables as civic awareness is supported by literature on service learning and civic engagement, as discussed in the next section.

As noted by Eyler and Giles (1999), participating in service learning projects allows students to gain a greater sense of self awareness and to review and adjust their beliefs about the community in which they live. Giroux (2000) found that in addition to gaining a deeper understanding of course work, service learning acts in a capacity to develop citizenship. Jones and Hill (2000) reported that community service helps bridge the gap between people of diverse cultures in addition to improving student learning and growth. Graham and Cockriel (1997), in their study titled, *A Factor Structure for Social and Personal Development Outcomes in College*, labeled one of their four factors as Civic Involvement and Awareness. In addition to incorporating effective citizenship skills, “This factor contained the variables measuring awareness of global issues, participation in the electoral process, awareness of social and political issues, gaining of insight into human nature, recognizing rights, responsibilities and privileges, and being sensitive to moral injustices” (p. 210). Finally, Erlich (2000) defined civic engagement as:

working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values, and motivation to make that difference. It

means promoting the quality of life in a community, through both political and non-political processes (p. vi.)

The variables constituting the civic awareness factor relate to the values described in Erlich's quote and are founded in "the view of John Dewey that American democracy and education are inexorably intertwined," (p. ix) a view also adopted by Erlich (2000).

Service Learning, Dimension Two: Critical Thinking and Application. The second dimension of service learning was labeled critical thinking and application due to the nature of the variables of which it was comprised. Variables within this dimension included: (a) acquiring a broad general education, (b) acquiring job- or work-related knowledge and skills, (c) thinking critically and analytically, and (d) working effectively with others.

Each item in the second dimension related to critical thinking in service learning or application of service learning concepts and principles and is supported in the literature. Kendall (1990) remarked that service learning programs are intended to strengthen students' understanding of more complex, large-scale issues. Cook (2008) noted, "This learning includes a deeper understanding of the historical, sociological, cultural, economic, and political contexts of the human needs or issues being addressed through the service-learning activity" (p.11). Cook also found that through the use of coursework and reflection activities, "the application of academic content to real-life situations is enhanced and student comprehension of social issues is deepened" (p.6). Similarly, in their article, Simons and Cleary (2006) identified service learning as referring to reciprocal learning in that students apply theoretical knowledge to "real world" situations, and, at the same time, they connect the service experience to the course content (Ramaley, 2000; Vogelgesang & Astin, 2000) through goals and objectives, activities and assignments, and reflections and discussions" (p. 308). This literature clearly supports the results

of the study and the items that grouped together to establish the critical thinking and application dimension of service learning.

Student-Faculty Interactions. Whereas factor analysis indicated two dimensions of service learning, only one dimension was indicated for student-faculty interactions. The items within this factor included: (a) used e-mail to communicate with an instructor, (b) discussed grades or assignments with an instructor, (c) talked about career plans with a faculty member or advisor, (d) discussed ideas from your readings or classes with faculty members outside of class, (e) received prompt written or oral feedback from faculty on your academic performance, and (f) worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.).

Similar to the two dimensions of service learning, the items that loaded within the student-faculty interactions construct are supported by the literature. In their Documenting Effective Educational Practice (DEEP) project, Kuh et al. (2005) identified colleges and universities that performed well in student engagement and graduation rates. They “used a regression model to identify baccalaureate-granting institutions that had higher-than-predicted scores on the five clusters of effective educational practice used by the National Survey of Student Engagement (NSSE)” (p. 10). One of the five clusters was student interactions with faculty. This cluster included the following variables: (a) discussing grades or assignments with an instructor, (b) talking about career plans with a faculty member or advisor, (c) discussing ideas from readings or classes with faculty members outside of class, (d) working with faculty members on activities other than coursework (committees, orientation, student-life activities, and so forth), (e) getting prompt feedback on academic performance, and (f) working with a faculty member on a research project. Variables a – e directly correspond to the variables found in this

study to comprise the student-faculty interactions construct. Variable f in the DEEP study did not load within the student-faculty interactions construct in this study.

The DEEP study found that email has taken student-faculty interactions to a new level. One student remarked, “E-mailing a professor is a much more efficient way to interact...It reduces the wait between when I have a question and when I can get a response from my professor” (Kuh et al., 2005, p. 216). The study also noted that email works just as effectively for increasing the quantity and promptitude of feedback faculty provide to students. Such prompt feedback and interactions via email, as well as ideas or readings discussed in class, seem to benefit the student more as frequency increases. On the other hand, discussing grades and assignments, discussing career plans, and working with a faculty member outside of class on a committee or project, are most effective on an “occasional” basis (Kuh et al., 2005, p. 303). No matter the frequency, the goal of interactions with faculty is to “see first-hand how experts identify and solve practical problems. Through such interactions teachers become role models, mentors, and guides for continuous, life-long learning” (Kuh et al., 2005, p. 12). Interactions with faculty offer students the opportunity to develop holistically and to make meaning from their learning experiences (Braskamp et al., 2006).

Does a Relationship Exist Between Service Learning and Student-Faculty Interactions?

One of the most significant factors related to college student success and persistence is academic achievement (Pascarella & Terenzini, 1991). Positive correlations have been shown to exist between service learning and academic achievement as well as between student-faculty interactions and academic achievement (Astin, 1993b). While a connection between service learning and student-faculty interactions has been suggested in the literature (Braskamp et al.,

2006; Kuh et al., 2005), the results of this study provide the first set of empirical evidence supporting a connection between the two constructs. Figure 2 diagrams this evidence as it relates to the pathway suggested by the literature. It is important to note that no empirical evidence was found in this study for the relationship between service learning, student-faculty interactions, and academic achievement, or for the relationship between academic achievement and persistence. Further research is necessary to understand these relationships and to offer supporting empirical evidence.

By empirically demonstrating that a relationship exists between service learning and student-faculty interactions, another piece of the student departure puzzle (Braxton, 2000) is

Figure 2. Pathway to persistence, based on this study.

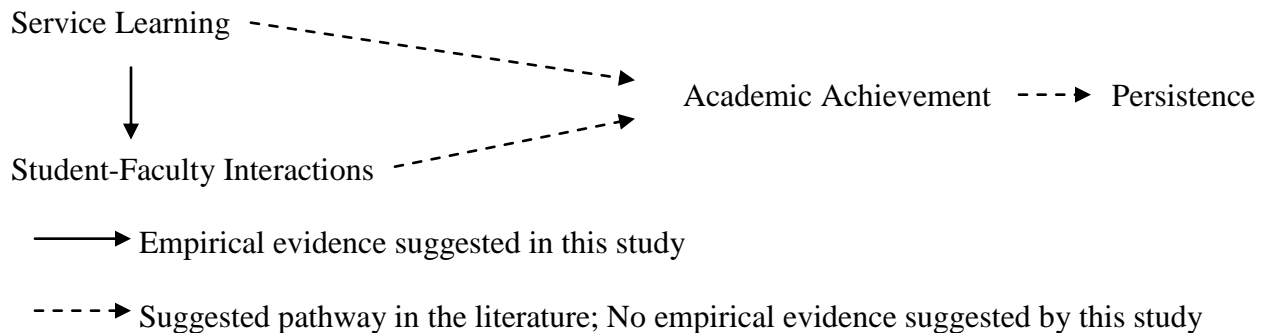


Figure 2. Empirical support found in this study for the relationship between service learning and student-faculty interactions, in reference to the pathway leading from service learning and student-faculty interactions to academic achievement and persistence found in the literature.

made clear. Service learning not only makes the college experience more meaningful by providing a link between the community and the classroom; it also leads to increased quality and quantity of student-faculty interactions (Kuh et al., 2005), which are “ultimately.....about

learning and development” (Braskamp et al., 2006, p. 152). Based on their participation in service learning projects alone, students’ academic achievement will increase (Pascarella & Terenzini, 1991). However, the results of this study show students will also be more inclined to interact with their faculty, another factor leading to increased academic achievement (Pascarella & Terenzini, 1991). By demonstrating that a positive, linear relationship exists between service learning and student-faculty interactions, this study indicates that increased engagement in service learning projects leads to a greater quality and quantity of student-faculty interactions. In turn, students should have increased academic achievement and persist through graduation.

Does Service Learning Affect Student-Faculty Interactions?

Multiple regression analysis was used to determine the extent to which service learning can predict student-faculty interactions. The results show that service learning explains 20.1 percent of the variance for student-faculty interactions, indicating service learning affects student-faculty interactions. While no prior empirical evidence has demonstrated this finding, it is supported in the literature. Research indicates service learning makes student-faculty interactions more meaningful by providing students the opportunity to learn from mentors and to gain a closer connection through more in-depth and extensive interactions (Kuh et al., 2005). Braskamp et al. (2006) connect community service, a component of service learning, and student-faculty interactions as a form of holistic student development by suggesting that:

- Faculty and students engage in service together. Such immersion experiences break down barriers between students and faculty.
- Student service experiences enter into classroom discussions and shape interactions with faculty.

- Student involvement in service experiences can shape what they want to do with their careers and where they do it. Faculty can be part of the interaction and part of helping students decipher their vocation (pp. 186-187).

Further, Kuh et al. (2005) summarize the effect service learning has on student-faculty interactions:

...students complete service learning projects with a deeper sense of meaning about what they are learning. They also see more clearly and appreciate the connections between the university and the community while coming to know their faculty members and peers in more authentic ways by working closely with them over an extended period. As a result, everyone benefits (p. 204).

The major findings of Kuh et al. (2005) and Braskamp et al. (2006) suggest multiple benefits for students participating in service learning. Students are provided opportunities to gain a deeper understanding of their course material and to engage in meaningful conversations and experiences with faculty members, helping shape their college experiences and future career choices. The social and academic connections established by the relationship between service learning and student-faculty interactions leads to a greater sense of connectedness with the university and with the community.

Summary and Recommendations

At a time when student success and persistence are at the forefront of higher education, the results of this study are significant and timely. This study examines the relationship between service learning and student-faculty interactions, including the factors comprising each construct and whether service learning affects student-faculty interactions. Data from the 2004 and 2006 administrations of the National Survey of Student Engagement (NSSE) at Washington State

University are used to better understand this relationship. Results of the study indicate two dimensions of service learning, civic awareness and critical thinking and application, and one dimension of student-faculty interactions. In addition, analyses show a linear relationship between the two constructs, with service learning predicting 20.1 percent of the variance on student-faculty interactions. In addition to the empirical evidence shown in this study, research suggests service learning influences quality and quantity of student faculty interactions (Braskamp et al., 2006; Kuh et al., 2005) and service learning and student-faculty interactions are independently associated with positive student outcomes, such as academic achievement and persistence (Astin, 1993b). As such, the relationship between service learning and student-faculty interactions has significant impacts on student success.

Braxton (2000) edited a volume entitled *Reworking the Student Departure Puzzle*, describing several theoretical models for student success with the aim of better understanding students' voluntary departure from institutions of higher education. Braxton notes research in this area has been ongoing for decades. Because literature indicates service learning and student-faculty interactions play a role in students' academic achievement and success, this study provides an avenue for understanding one piece of the departure puzzle. While each construct is independently associated with greater academic achievement and success, there is now empirical evidence showing that service learning positively impacts student-faculty interactions. Thus, the more students participate in service learning projects, the more likely it is they will interact with faculty members. Service learning becomes more impactful and more meaningful, while the quality and quantity of student-faculty interactions are strengthened as students participate in service learning projects. Overall, empirical evidence showing a relationship between service learning and student-faculty interactions creates a stronger model for student holistic learning

and development and addresses another piece of the departure puzzle. Further studies are necessary to more clearly delineate the impact of service learning and student-faculty interactions on academic achievement and student success. The next sections discuss recommendations for future research and practice.

Recommendations for Future Research. Future research is essential to gaining a more complete empirical picture of the effect the relationship between service learning and student-faculty interactions has on academic achievement and persistence. The National Survey of Student Engagement (NSSE) offers a valuable tool for studying this relationship. It is recommended that future studies examine the nature and extent of the relationship between service learning, student-faculty interactions, and academic achievement by correlating students' self-reported grades with each dimension of service learning, as well as with the one dimension of student-faculty interactions. The methodology used in this study serves as an example for such experimentation. In addition, academic achievement has been positively correlated with persistence (Pascarella & Terenzini, 1991). Therefore, it would be beneficial to gather students' actual grades from the institution to compare with the self-reported grades. By further understanding the empirical relationship between service learning, student-faculty interactions, and academic achievement, the case can be made that service learning affects student-faculty interactions, which leads to academic achievement and, thus, persistence.

Further recommendations for future research are (a) to examine NSSE, Community College Survey of Student Engagement (CCSSE), or other similar data from various institutional types (i.e. comprehensive, liberal arts, community colleges, etc.) in order to better understand the relationship between service learning and student-faculty interactions, and (b) to review the effects of the relationship between service learning and student-faculty interactions with respect

to various demographic factors, such as by race or ethnicity, by living group (i.e. sorority or fraternity vs. residence halls), by classification of first-generation student, or by major. There is often data collected from various national or institutional instruments that goes untouched that could be used to conduct this research.

First, the NSSE instrument was created to aid in the understanding of student engagement activities and their relation to student success outcomes. Unfortunately, however, much of this data goes untouched once collected. By accessing data already at hand, analyses and understanding of the relationship between service learning and student-faculty interactions at various institutional types can be completed promptly and efficiently. For institutional types using instruments different than the NSSE, comparable data could be gleaned and analyzed for comparison.

Second, research has been conducted with respect to impacts of student-faculty interactions on gender, race, socioeconomic status, and first-generation status (Kim & Sax, 2007; Sax, Bryant & Harper, 2005). Now that a relationship between service learning and student-faculty interactions has been shown, continued studies in these areas are important for further delineating and clarifying the relationship. By solidifying the relationship between service learning and student-faculty interactions, understanding the impacts of the constructs on academic achievement and persistence may be better understood. The next section offers recommendations for future practice.

Recommendations for Future Practice. In addition to the need for further studies on the relationship between service learning and student-faculty interactions, the results of this study suggest three recommendations for future practice. First, now that it is clear that student-faculty interactions can be made stronger through service learning experiences, more opportunities

should be made available for faculty to participate in students' service experiences. The work of Braskamp et al. (2006) suggests such immersion experiences allow students and faculty to make a deeper connection because they are together for extended periods of time. Many times, service learning is completed by the student in the community and then interaction with the faculty member occurs on-campus. By bringing students and faculty together in service experiences, students will benefit academically, personally, and professionally from the mentorship, proximity, and collegiality of the instructor. Faculty will benefit from watching and participating in students' service experience and can help make deeper connections to the coursework on-site. The community benefits from having both students and faculty serving their needs.

Second, given the results of this study, practitioners should provide more opportunities to couple service learning and student-faculty interactions. Because a linear relationship exists and because service learning predicts student-faculty interactions, opportunities that pair the two together will make service learning experiences more meaningful and will increase student-faculty interactions. By strengthening service learning and student-faculty interactions, student achievement should increase based on the literature, and students will have a greater tendency to persist.

Third, because the intent of the NSSE instrument is to better understand student engagement and college outcomes, it is important that practitioners use NSSE data more often for these purposes. Important results could exist within the data; however, data often goes untouched once it has been collected. This study shows that the NSSE instrument is valid and reliable for examining the relationship between service learning and student-faculty interactions, both of which predict academic achievement and persistence. Practitioners should follow the

methodology used in this study to determine or clarify other significant relationships that pertain to student achievement and success.

By gaining a deeper understanding of the relationship between service learning and student-faculty interactions, by creating more opportunities for incorporating faculty into service experiences, and by providing other opportunities to couple service learning with student-faculty interactions, practitioners and administrators increase the likelihood of students persisting at their institution, thereby decreasing rates of attrition. As student departure is a major concern at institutions across the nation, the results and recommendations of this study should be considered.

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APPENDIX A

NSSE Data for Analyses

Table 1. Questions from 2004 and 2006 NSSE surveys requested for data analyses

Questions

In your experience at your institution during the current school year, about how often have you done each of the following?

- Worked on a paper or project that required integrating ideas or information from various sources. (1d)
- Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments. (1e)
- Participated in a community-based project (e.g., service learning) as part of a regular course. (1k)
- Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment. (1l)
- Used e-mail to communicate with an instructor. (1m)
- Discussed grades or assignments with an instructor. (in)
- Talked about career plans with a faculty member or advisor. (1o)
- Discussed ideas from your readings or classes with faculty members outside of class. (1p)
- Received prompt written or oral feedback from faculty on your academic performance. (1q)
- Worked harder than you thought you could to meet an instructor's standards or expectations. (1r)
- Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.). (1s)
- Attended an art exhibit, gallery, play, dance, or other theater performance. (6a)

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

- Practicum, internship, field experience, co-op experience, or clinical assignment. (7a)
- Community service or volunteer work. (7b)
- Participate in a learning community or some other formal program where groups of students take two or more classes together. (7c)
- Work on a research project with a faculty member outside of course or program requirements. (7d)

To what extent does your institution emphasize...

- Encouraging contact among students from difference economic, social, and racial or ethnic backgrounds. (10c)
- Attending campus events and activities (special speakers, cultural performances, athletic events, etc.). (10f)

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

- Acquiring a broad general education. (11a)
 - Acquiring job or work-related knowledge and skills. (11b)
 - Thinking critically and analytically. (11e)
 - Working effectively with others. (11h)
 - Voting in local, state, or national elections. (11i)
 - Understanding yourself. (11k)
 - Understanding people of other racial and ethnic backgrounds. (11l)
 - Solving complex real-world problems. (11m)
 - Developing a personal code of values and ethics. (11n)
 - Contributing to the welfare of your community. (11o)
-

APPENDIX B

Service Learning Construct

Table 2. Face Validity Analysis of the Factors Comprising the Service Learning Construct

Table 2
Question Numbers, Wording, Scales, and Coding for Factors Determined Through Face Validity Analysis to Comprise the Service Learning Construct

Question Number	Question Wording	Scale (Coding)
1	In your experience at your institution during the current school year, about how often have you done each of the following?	
1d	Worked on a paper or project that required integrating ideas or information from various sources	Never (1) Sometimes (2) Often (3) Very Often (4)
1e	Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	Never (1) Sometimes (2) Often (3) Very Often (4)
1k	Participated in a community-based project (e.g. service learning) as part of a regular course	Never (1) Sometimes (2) Often (3) Very Often (4)
6	During the current school year, about how often have you done each of the following?	
6a	Attended an art exhibit, gallery, play, dance, or other theater performance	Never (1) Sometimes (2) Often (3) Very Often (4)
6b	Exercised or participated in physical fitness activities	Never (1) Sometimes (2) Often (3) Very Often (4)
6c	Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.)	Never (1) Sometimes (2) Often (3) Very Often (4)
7	Which of the following have you done or do you plan to do before you graduate from your institution?	

Table 2 (continued). Face Validity Analysis of the Factors Comprising the Service Learning Construct

Question Number	Question Wording	Scale (Coding)
7a	Practicum, internship, field experience, co-op experience, or clinical assignment	Have not decided (1) Do not plan to do (2) Plan to do (3) Done (3)
7b	Community service or volunteer work	Have not decided (1) Do not plan to do (2) Plan to do (3) Done (3)
7c	Participate in a learning community or some other formal program where groups of students take two or more classes together	Have not decided (1) Do not plan to do (2) Plan to do (3) Done (3)
9d	About how many hours do you spend in a typical week...Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.).	0 (1) 1-5 (2) 6-10 (3) 11-15 (4) 16-20 (5) 21-25 (6) 26-30 (7) More than 30 (8)
10	To what extent does your institution emphasize...	
10c	Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	Very little (1) Some (2) Quite a bit (3) Very much (4)
10f	Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	Very little (1) Some (2) Quite a bit (3) Very much (4)
11	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?	

Table 2 (continued). Face Validity Analysis of the Factors Comprising the Service Learning Construct

Question Number	Question Wording	Coding
11a	Acquiring a broad general education	Very little (1) Some (2) Quite a bit (3) Very much (4)
11b	Acquiring job or work-related knowledge and skills	Very little (1) Some (2) Quite a bit (3) Very much (4)
11e	Thinking critically and analytically	Very little (1) Some (2) Quite a bit (3) Very much (4)
11h	Working effectively with others	Very little (1) Some (2) Quite a bit (3) Very much (4)
11i	Voting in local, state, or national elections	Very little (1) Some (2) Quite a bit (3) Very much (4)
11k	Understanding yourself	Very little (1) Some (2) Quite a bit (3) Very much (4)
11l	Understanding people of other racial and ethnic backgrounds	Very little (1) Some (2) Quite a bit (3) Very much (4)
11m	Solving complex real-world problems	Very little (1) Some (2) Quite a bit (3) Very much (4)
11n	Developing a personal code of values and ethics	Very little (1) Some (2) Quite a bit (3) Very much (4)

Table 2 (continued). Face Validity Analysis of the Factors Comprising the Service Learning Construct

Question Number	Question Wording	Coding
11o	Contributing to the welfare of your community	Very little (1) Some (2) Quite a bit (3) Very much (4)
11p	Developing a deepened sense of spirituality	Very little (1) Some (2) Quite a bit (3) Very much (4)

APPENDIX C

Student-Faculty Interactions Construct

Table 3. Face Validity Analysis of the Factors Comprising the Student

Question Number	Question Wording	Coding
1	In your experience at your institution during the current school year, about how often have you done each of the following?	
1l	Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	Never (1) Sometimes (2) Often (3) Very Often (4)
1m	Used e-mail to communicate with an instructor	Never (1) Sometimes (2) Often (3) Very Often (4)
1n	Discussed grades or assignments with an instructor	Never (1) Sometimes (2) Often (3) Very Often (4)
1o	Talked about career plans with a faculty member or advisor	Never (1) Sometimes (2) Often (3) Very Often (4)
1p	Discussed ideas from your readings or classes with faculty members outside of class	Never (1) Sometimes (2) Often (3) Very Often (4)
1q	Received prompt written or oral feedback from faculty on your academic performance	Never (1) Sometimes (2) Often (3) Very Often (4)
1r	Worked harder than you thought you could to meet an instructor's standards or expectations	Never (1) Sometimes (2) Often (3) Very Often (4)
1s	Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	Never (1) Sometimes (2) Often (3) Very Often (4)

Table 3 (continued). Face Validity Analysis of the Factors Comprising the Student-Faculty Interactions Construct

Question Number	Question Wording	Coding
7d	Have you done or do you plan to... Work on a research project with a faculty member outside of course or program requirements...before you graduate from your institution?	Have not decided (1) Do not plan to do (2) Plan to do (3) Done (4)
8	Which best represents the quality of your relationships with faculty members?	1 = Unavailable, Unhelpful, Unsympathetic (1) 2 (2) 3 (3) 4 (4) 5 (5) 6 (6) 7 = Available, Helpful, Sympathetic (7)

APPENDIX D

Washington State University

**Institutional Review Board
For Human Subjects Research**

From: irb@wsu.edu [mailto:irb@wsu.edu]
Sent: Monday, January 28, 2008 2:10 PM
To: Lebeau, Jennifer E
Subject: Certification of Exemption, IRB Number 10230-001

MEMORANDUM

TO: Kelly Ward, Jennifer Lebeau, CHAD GOTCH and FRANCES HERMANSON,

FROM: Patrick Conner (for) Kris Miller, Chair, WSU Institutional Review Board (3005)

DATE: 1/28/2008

SUBJECT: Certification of Exemption, IRB Number 10230-001

Based on the Exemption Determination Application submitted for the study titled The Relationship Between Service Learning and Student-Faculty Interactions at Washington State University, and assigned IRB # 10230, the WSU Institutional Review Board has determined that the study satisfies the criteria for Exempt Research contained in 45CFR 46.

Exempt certification does not relieve the investigator from the responsibility of providing continuing attention to protection of human subjects participating in the study and adherence to ethical standards for research involving human participants.

This certification is valid only for the study protocol as it was submitted to the IRB. Studies certified as Exempt are not subject to annual review. If any changes are made to the study protocol, you must submit the changes to the IRB for determination that the study remains Exempt before implementing the changes. Request for Amendment forms are available online at <http://www.irb.wsu.edu/forms.asp>.

In accordance with federal regulations, this Certification of Exemption and a copy of the study protocol identified by this certification must be kept by the principal investigator for THREE years following completion of the project.

It is important to note that certification of exemption is not approval by the IRB. The study materials should not include the statement that the WSU IRB has reviewed and approved the study for human subject participation.

Washington State University is covered under Human Subjects Assurance Number FWA00002946 which is on file with the Office for Human Research Protections.

If you have questions, please contact the Institutional Review Board at (509) 335-3668. Any revised materials can be mailed to the Office of Research Assurances (Campus Zip 3005), faxed to (509) 335-6410, or in some cases by electronic mail, to irb@mail.wsu.edu.

Review Type: New Protocol
Review Category: Exempt
Date Received: 1/25/2008
Exemption Category: 45 CFR 46.101 (b)(4)
OGRD No.: N/A
Funding Agency: N/A

APPENDIX E

Curriculum Vita

Jenny LeBeau

**Candidate for the Degree of
Master of Arts
Higher Education Administration**

Jennifer Elizabeth LeBeau
211 NW Cory Lane #C
PO Box 1597
Pullman, WA 99163
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509.592.3070

EDUCATION *Washington State University*, August 2007 – Present. Candidate for Master of Arts in Higher Education Administration. Thesis: The Relationship Between Service Learning and Student-Faculty Interactions.

University of Idaho, May 2004 –December 2004. Candidate for Master of Education degree, Community and Rehabilitation Counseling

University of Idaho, August 1997-May 2001. Bachelor of Science degree, Biology

EMPLOYMENT HISTORY

August 2008 to present Washington State University, Senior Engineering Capstone Assessment Project
Graduate Assistant, Dr. Michael Trevisan

- Analyze data for the Senior Engineering Capstone Assessment Project (SECAP) by retrieving information from TIDEE website and reviewing for themes, statistically summarizing item scores, analyzing correlations among items, and analyzing correlations with student feedback forms, as well as analyzing other information relating to the impact of the project.
- Report data from analyses mentioned above using technical reporting format.
- Interview faculty members participating in SECAP to determine means of implementing components of project.
- Write technical reports for first year implementation of the IPEM, IGERT Program in Evolutionary Modeling, and Building Science Teaching Capacity projects.
- Perform other duties as assigned.

June 2008 to present Association for the Study of Higher Education Monograph Series
Editorial Assistant, Washington State University

- Perform administrative responsibilities including record keeping and occasional correspondence
- Attend the ASHE conference in November 2008 to assist in the Advisory Board meeting

June 2008 to August 2008 Washington State University, Educational Leadership & Counseling Psychology

Graduate Assistant, Dr. Kelly Ward

- Maintain accurate records, print transcripts, and perform other duties as assigned for an AAUW-funded academic motherhood study
- Assist in the preparation of promotion packet, including photocopying and filing documents and maintaining organizational system
- Assist with the preparation and delivery of an academic course by completing tasks as assigned.
- Primary duties for the upcoming year will include completing tasks for the motherhood study and checking mail and phone messages as professor is on sabbatical

August 2007 to August 2008 Washington State University, Center for Civic Engagement

Graduate Assistant, Academic Programs

- Assisted in the facilitation and coordination of service learning programs with faculty members
- Developed relationships with faculty members in various WSU academic departments
- Coordinated in-class presentation schedules
- Presented information about the Center for Civic Engagement and the process of establishing an account in the online database, Service Learning Pro (SLPRO)
- Coordinated monthly peer mentor visits, in which students may submit service hours, ask questions, or receive assistance in setting up a service placement, project or position.
- Acted as a liaison between students, faculty members, and the CCE
- Troubleshoot SLPRO and relayed information to the Student Program Coordinator for assistance from the SLPRO vendor
- Assisted in the creation and administration of the Fall and Spring Student Surveys
- Analyzed data from the Fall and Spring Student Surveys, using SPSS and Excel
- Presented to the Future Cougars of Color
- Presented to potential Cougars via the Experience Life Workshops, for students who have been admitted but are undecided on acceptance
- Chaired the Student Recognition Committee, which recognizes students on a monthly basis for exemplary service and commitment to community.
- Participated as a member of the Distinguished Service Learning Award Committee, which recognizes one outstanding faculty member, student, and community partner for the academic year
- Prepared and mailed reminder post-cards for a Caregiver Support Group that meets twice each month
- Participated in all-staff training sessions and service projects
- Students in Service – 450 hours; Washington Campus Compact

July 2006 to August 2007 University of Idaho, University Residences, Academic Champions Experience (ACE-it)

Program Facilitator

- Implemented and coordinated the ACE-it Social Norms Educational Program by using a media campaign to disseminate accurate, positive educational messages that reflected the current research findings regarding student performance of academic success behaviors
- Developed relationships with faculty across UI academic units
- Presented workshops and seminars on academic success in classes, as well as to university and community groups and organizations
- Served as a resource to and a liaison for University community members
- Participated in university programs and activities to distribute material about academic success behavior performance on campus (New Faculty Orientation, Student Activities Fair, Palousafest, Social Norms Conference)
- Updated the ACE-it website, including moderation of two forums for discussion
- Evaluated the effectiveness of the ACE-it Program by administering an electronic survey, as well as an in-class survey
- Provided program management by ensuring appropriate ACE-it Grant budget/financial accountability, including producing and presenting needed accounting/budget forms and reports
- Scheduled and coordinated logistics for the annual Advisory Board retreat and Campus Liaison Committee Meetings
- Hired, trained, and supervised work-study students, student employees, and interns
- Participated in university committees and task forces, including the UI Strategic Enrollment Management, Undergraduate Student Success (SEMUGSS) Retention Committee
- Participated in the Freshmen Contact Program
- Wrote a UI Assessment Assistance Grant Proposal to receive further funding
- Wrote the ACE-it Implementation Guide to be used at other institutions of higher education intending on implementing a social norms campaign to promote academic success
- Adhered to ethical standards of professional conduct by acting in a manner consistent with the University's mission and core values of learning, community, responsibility, integrity and quality
- Performed other tasks and duties as needed.

August 2004 to June 2006 University of Idaho, Tutoring and Academic Assistance Programs

Learning Specialist

- Instructed University of Idaho Freshman Transition Seminar and Study Skills Refresher courses (INTR 101 & 102).
- Presented study skills and Tutoring and Academic Assistance Programs promotion seminars to groups such as Core Discovery classes, graduate teaching assistants, high school students, living groups, and community members.

Service Learning and Student-Faculty Interactions

- Scheduled, presented and developed marketing strategies for the “College Success Series: On the Road Delivering Success to Your Door” program, which offers study skills to classes and groups on campus by request.
- Assisted students individually with learning and study skills by assessing their needs, evaluating their progress, and formulating future plans and goals.
- Organized and facilitate learning groups, primarily for members of Student Support Services, to enable students to apply study skills and discuss current issues with school and studying.
- Conducted Supplemental Instruction for Biology 115 to teach students to apply study skills using a specific course.
- Provided individual career and academic advising, as well as mentoring, to students from all backgrounds, particularly low income, first generation, or students with disabilities.
- Assisted in the development of the Freshmen Year Experience Student Success Initiative Grant Proposal.
- Participated in the Freshmen Calling Program conducted by the Dean of Students Office, including follow-up activities.
- Researched information for Freshmen Transition Seminar proposals, as well as for grants and various online information, including supplemental instruction, study skills, and free screen reading programs.
- Tutored for Student Support Services and Tutoring and Learning Services in Chemistry and Biology.
- Attended TAAP staff meetings and professional development trainings.
- Maintained TAAP and UI policies and procedures, as well as FERPA standards.

June 2005 to July 2005 University of Idaho, Upward Bound Math Science Program

Academic Advisor

- Instructed Road Map to Success class, using the DISCOVER career planning program.
- Developed a scope and sequence of class curriculum, goals, and objectives.
- Provided individual career and academic advising to high school students who were first generation or who came from households of limited income.
- Presented study skills to UBMS instructors and students.
- Maintained confidentiality, as well as UBMS policies and procedures, FERPA and HIPAA standards.

October 2004 to December 2004 University of Idaho, Northwest Nations Educational

Opportunity Center

Program Assistant

- Trained in giving presentations to low income, first generation students on subjects such as Financial Aid/FAFSA, the Culture of Higher Education, Admissions, and Career Assessment.
- Entered student data and maintained confidential student files.

September 2003 to August 2004 AmeriCorps University of Idaho, Academic Assistance Programs

Learning Specialist/Tutor

- Tutored college students from all ages, backgrounds, cultures, and abilities who were academically under-prepared, including students with learning disabilities, ADD, or ADHD.
- Provided weekly open study sessions and open tutoring office hours.
- Facilitated weekly biology study sessions.
- Mentored and modeled learning strategies, active learning techniques, and information processing to students with disabilities or special needs.
- Advised students regarding scheduling to ensure success and to ease frustrations.
- Applied knowledge of University of Idaho policies, procedures, and programs.
- Actively participated in several community service or service learning activities.
- Presented training to staff on emergency and disaster response.
- Attended weekly counselor meetings and bi-monthly program meetings.
- Received training in citizenship/civic engagement, communication, conflict resolution, team building, disaster preparedness, CPR/First Aid, cross-cultural sensitivity, tutoring practices, mentoring practices, public speaking, service learning, volunteer recruitment, and becoming a Safe Zone ally.

June 2004 to December 2004 University of Idaho, Legal Aid Clinic

Office Assistant

- Interviewed clients to determine eligibility for the program, which included low income and Latah County residency, and then determined the appropriate clinic for the case.
- Closely interacted with members of the legal community, including supervising attorneys, judges, court personnel, student interns, and clients.
- Performed filing, copying, and mailing of documents, and entered and retrieved information from an Access database.

August 2003 to May 2004 University of Idaho Law Library

Desk worker

- Assisted law students, lawyers, and the public in locating desired materials.
- Learned and used legal terminology, correct citations, and knowledge of Congressional Library system to better serve patrons.
- Researched, analyzed, tracked, and entered information within the Voyager database.

May 2002 to August 2003 Idaho Department of Environmental Quality

Environmental Analyst

- Assisted in the completion of the St. Joe and St. Maries Total Maximum Daily Load (TMDL) reports, which are now EPA approved.

- Researched information for the Kootenai watershed TMDL and wrote historical section.
- Collaborated with members of the professional community to gather and clarify information.
- Used Microsoft Access, Excel, and Word.
- Edited technical reports.

LEADERSHIP POSITIONS

- Education Graduate Organization (EGO) Executive Officer: peer-nominated and elected for 2008-2009 Department Representative, Educational Leadership and Counseling Psychology (ELCP)
- Member: Emerging Scholars Committee, EGO, 2008-2009
- Senator: Graduate and Professional Student Association, representing Higher Education Administration and ELCP, Fall 2007
- Discussant: College of Education 4th International Globalization, Diversity, and Education Conference, March 1, 2008
- Member: President's Award Committee, March 2008
- Member: Distinguished Service Learning Award Committee, Spring 2008
- Chair: Student Recognition Committee, Center for Civic Engagement, 2007-present
- Member: Education Graduate Organization, 2007-Present
- Member: University of Idaho Strategic Enrollment Management, Undergraduate Student Success (SEMUGSS) Retention Committee, 2006-2007
- Member: Sophomore Website Subcommittee, SEMUGSS, 2006-2007
- Chair: ACE-it Campus Liaison Committee, 2006-2007
- Chair: ACE-it Advisory Board, 2006-2007
- Chair: ACE-it Statistical Analyst Search Committee, 2006-2007
- Chair: ACE-it Web Designer Search Committee, 2006-2007

PRESENTATIONS

LeBeau, J.E. (2007). *Academic Success: The Norm*. National Conference on the Social Norms Approach. Cambridge, MA. July 16-17, 2007.

LeBeau, J.E. (2008). *Poster Session: The History of Service Learning*. College of Education 4th International Globalization, Diversity, and Education Conference. Spokane, WA. February 28 - March 1, 2008.

LeBeau, J.E. (2008). *Poster Session: The History of Service Learning*. College of Education Graduate Research Symposium. Spokane, WA. February 28, 2008.

LeBeau, J.E. (2008). *Roundtable Discussion: The Relationship Between Service Learning and Student-Faculty Interactions at Washington State University: A Master's Thesis in the Making*. College of Education Graduate Research Symposium. Spokane, WA. February 28, 2008.

SCHOLARSHIPS

Dorothy B. Cook, College of Education, Washington State University, \$3000 for 2008-2009.

VOLUNTEER EXPERIENCE

- Students in Service, Washington Campus Compact
- Gardening at Bellevue Living Community; Pullman, Washington
- AmeriCorps, Moscow, Idaho
 - National Day of Service, Habitat for Humanity
 - Scare Away Hunger
 - Make a Difference Day
 - Martin Luther King, Jr. Community Diversity Breakfast
- Special Olympics; Spokane, Washington
- Paint the Palouse; Moscow, Idaho
- Saturday of Service; Moscow, Idaho
- McIntosh Grange Fair Booth; Rockford, Washington