MEASURING STUDENT-FACULTY INTERACTION FOR NONTRADITIONAL COLLEGE STUDENTS: A COMPARISON OF DATA COLLECTION TOOLS

A Doctoral Dissertation Research

Submitted to the
Faculty of Argosy University, Online
College of Education

In Partial Fulfillment of
The Requirements for the Degree of

Doctor of Education

by

Nancy Calsolaro Smulsky

January 2012

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Dissertation Committee Approval:

Nancy Hoover
Digitally signed by Nancy Hoover
DN: cn=Nancy Hoover, o=Argosy University, ou=AUO College of Education, email=nhoover@argosy.edu, c=US
Date: 2012.01.24 16:33:49 -05'00'

Nancy Hoover, EdD Dissertation Chair _____ Date

Gladys A. Arome, Ph.D.
Digitally signed by Gladys A. Arome
DN: cn=Gladys A. Arome, o=AUO, ou, email=garome@argosy.edu, c=US
Date: 2012.01.24 23:41:53 -05'00'

Gladys Arome, PhD

Marian Andrea Orr, Ph.D., MPM
Digitally signed by Marian Andrea Orr, Ph.D., MPM
DN: cn=Marian Andrea Orr, Ph.D., MPM, o=Argosy University, ou=AUO, email=maorr@argosy.edu, c=US
Date: 2012.01.24 20:39:20 -05'00'

Marian Andrea Orr, Ph.D., MPM

Dr. Heather Pederson
Digitally signed by Dr. Heather Pederson
DN: cn=Dr. Heather Pederson, o=AUO, ou=Program Chair COE, IRB representative COE, email=hpederson@argosy.edu, c=US
Date: 2012.02.02 14:54:05 -06'00'

Heather Pederson EdD

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Nancy Hoover, EdD Dissertation Chair

Gladys Arome, PhD

Marian Andrea Orr, Ph.D., MPM

Department: College of Education

Abstract

As an online institution of higher education, Excelsior College strives to ensure delivery of high quality online courses leading to student success. A key benchmark for student success is student-faculty interaction (SFI). The decade-old National Survey of Student Engagement (NSSE) measures several benchmarks including student-faculty interaction but was designed with the traditional college student in mind. The purpose of this quantitative study was to explore the quality benchmark of student-faculty interaction (SFI) of nontraditional baccalaureate level college students seeking degree completion through online programs offered at Excelsior College. The research problem was to determine if Excelsior College's 2011 NSSE score for student-faculty interaction would differ if survey items were written in a context consistent with student-faculty interaction in the online learning environment. The same population of Excelsior College students who were invited to participate in the 2011 electronically delivered NSSE were invited to participate in an electronically delivered resurvey using SFI items from Bangert's (2005, 2006) *The Student Evaluation of Online Teaching Effectiveness* (SEOTE) tool. Although both tools are based on Chickering and Gamson's (1987) *Seven Principles of Good Practice in Undergraduate Education*, NSSE measured frequency of occurrence for each survey item, while SEOTE measured satisfaction. This study concluded that students feel interactions with faculty are infrequent, but they are satisfied with the actual interaction that does occur. It is recommended that a new survey be developed using one type of response scale; incorporate language and criteria consistent with the online learning environment; and also allow for open-ended, qualitative responses.

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DEDICATION

To my husband Matt whose love and support have helped turn this once lifelong dream into a shared reality; and to my best friend Dr. Barb Gilbert whose encouragement and guidance was priceless.

TABLE OF CONTENTS

Page

TABLE OF TABLES

Table **Page**

TABLE OF APPENDICES

Appendix **Page**

CHAPTER ONE: THE PROBLEM

Introduction

Computer-mediated learning (CML) has yet to evolve into its own as a discrete discipline; rather it is viewed as an instructional tool (Elbeck & Mandernach, 2009). Despite the crossroads at which CML stands, its impact on higher education cannot be denied. Elbeck and Mandernach (2009) pointed out that CML allows for student centered teaching and learning, the breaking down of barriers, and empowers the nontraditional college student with control over their interactions with faculty and fellow learners. These characteristics of CML have caused researchers and educators to challenge the validity of this teaching methodology and the impact it has on student engagement including student-faculty interaction.

Kirtman (2009) agreed with Hu and Kuh (2002) in purporting student engagement and successful outcomes are influenced by time and energy students put into their learning. Over the decades, studies of this theory are comparable with findings in Chickering and Gamson's (1987) *Seven Principles for Good Practice in Undergraduate Education*, one principle of which is student-faculty interaction (SFI). With student-faculty interaction being an integral element for successful outcomes, faculty must be comfortable with the dynamics of the online learning environment (OLE) and CML, both of which drastically alter the dynamics of such relationships, but not their importance.

On traditional college campuses, "students learn from faculty members both inside and outside the classroom" (NSSE, 2009, p. 7). Face-to-face interaction leads students to view their instructors as "role models, mentors, and guides for continuous, lifelong learning" (NSSE, 2010a, p. 37). With this in mind, Chen, Gonyea, and Kuh

(2008) defined student-faculty interaction as "meaningful interaction [students have] with faculty" (p. 4) which is no less important for the success of nontraditional online college students than for students attending traditional college campuses. However, online teaching and learning is not acceptable to institutions "where intimate, face-to-face contact is a cherished standard" (Nugent, 2007, p. 7) nor is technology believed to align well with the mission and values of many traditional college campuses (Levy & Beaulieu, 2003; McCormick, Pike, Kuh, & Chen, 2008).

For over half a century colleges and universities have been using information technologies for both research and administrative activities. It is only in the past ten years that learning management systems (LMS) have evolved as a means of delivering curriculum inside and outside the classroom (Meerts, 2003). This new modality creates a deep divide between those who cherish tradition and technology-minded, forward thinking faculty and administrators. Another side of this dilemma is the demand of nontraditional students who seek some "control over where, when, what, and how fast they learn" (Barone, 2003, p. 2). This locus of control includes students having access to instructors while inside or outside of the learning environment.

There is no doubt that distance and online education is fast becoming the choice of many nontraditional college students who not only seek higher educational opportunities but are also responsible for supporting their families through full or part-time employment. In the 2006-07 academic year over 11,000 college-level degree and certificate granting programs were available to students without them ever having to set foot in a traditional college classroom (Parsad & Lewis, 2008). With increasing demand from nontraditional students for online educational opportunities, online learning

environments (OLEs) are quickly becoming the option of choice for adult learners as the pendulum swings further from the grounded center of traditional college campuses (Clark, 2008).

More colleges and universities are exploring creative, cost effective methods to offer curriculum online in efforts to draw some of the over three million students seeking higher educational opportunities to their institutions without sacrificing quality (Kirtman, 2009; D'Orsie & Day, 2006). Although offering online courses and degree programs may prove to be appealing to students and increase enrollments, it does not come without risks and barriers (Kirtman, 2009). Katz (2003) implied that faculty members from the traditional college campus may feel OLEs impinge on tradition and student learning, while Kirtman (2009) concluded that "higher satisfaction [with OLEs and CML] could lead to increased learning" (p. 110). With online and distance learning still in its infancy, the debate will certainly continue for some time to come.

One way to determine the value of online learning is through research. The *National Survey of Student Engagement* (NSSE) measures six benchmarks related to student engagement (NSSE, 2010a). A second established student survey tool is the *Students' Evaluation of Educational Quality* (SEEQ) which measures nine benchmarks of teaching (Penn State, 2010). While the *Course/Instructor Evaluation Questionnaire* (CIEQ) measures attributes of both teaching and course effectiveness (CIEQ, 2009). Although these surveys have proven validity and reliability (CIEQ, 2009; Kuh, 2001; Penn State, 2010) none of these tools focus on online teaching and learning.

Problem Background

With online learning an expectation of nontraditional students and institutions, higher education must meet this demand and ensure positive outcomes. One of the key factors for successful outcomes is keeping students engaged (Bangert, 2005; McCormick, Pike, Kuh, & Chen, 2008). One concern of colleges is the increasing numbers of students who enroll in programs but never graduate. It is vital for colleges to identify opportunities for improvement and take necessary actions leading to successful student outcomes (Kuh, Kinzie, Cruce, Shoup, & Gonyea, 2007).

Driven by the current economic climate and the growing demand from adult learners for online programs, most institutions are embracing technology. They are integrating online courses into their curriculum or have adopted a blended model combining classroom and online activities (Allen & Seaman, 2010). According to the 2010 Sloan Survey of Online Learning

> sixty-three percent of reporting institutions said that online learning was a critical part of their institution's long term strategy [fueled by] a twenty-one percent growth rate for online learning compared to the less than two percent growth of the overall higher education student population. (Allen & Seaman, 2010, p. 2)

However, few colleges are exclusively devoted to online teaching and learning. Excelsior College (EC) took the lead 4 decades ago (Excelsior College, 2010b, ¶ 2) offering distance learning and an assessment based model. Today, there are more traditional colleges and universities than there are online institutions. Approximately 3.7% of undergrads earn degrees exclusively through online learning management systems (Staklis, 2010). With such a small number, studies focusing on student engagement are designed for the traditional classroom setting. The most popular survey of student engagement is NSSE which focuses on the face-to-face campus model (Staklis,

2010). Unfortunately, it "may not be an accurate measure of the type of student engagement that takes place with alternate forms of learning" (Bose & Daniels, 2008, p. ii).

When gathering data related to online programs, it is paramount to design survey items using language that is familiar to participants and related to their experiences. Valid and reliable feedback is necessary as institutions of higher education strive to ensure both quality and significant learning experiences for their students (Bangert, 2005, 2006). After all, the validity of survey findings is dependent upon the questions asked as well as their design (Fowler, 1995; Giuseppe, 2006).

The NSSE has been in use for over 10 years (NSSE, 2010b). Ewell brought together a team of national experts who devoted a great deal of time and energy designing NSSE to ensure survey items met the stringent requirements for rigor and content validity (NSSE, 2010c). NSSE is the corner stone for student engagement data as evidenced by the over 600 postsecondary institutions which have voluntarily participated in the survey over the past decade (NSSE, 2010a). According to Bangert (2005) tools used to evaluate online learning should be designed with the online environment in mind. It is unclear however, if NSSE findings are valid when addressing interaction between students and faculty who experience teaching and learning via OLEs and various learning management systems.

As a NSSE participant, Excelsior College senior management and faculty members are most concerned about benchmarks where they scored lower than the average scores of other participating institutions that included "online educators group including American Public University System, Capella University, Charter Oak State

College, Kaplan University, SUNY Empire State College, and Governors University" (Bose & Daniels, 2008, p. i). As reported in the 2008 NSSE, Excelsior College's scores for SFI were much lower when compared to scores of these other institutions (Bose & Daniels, 2008). The problem addressed by this study is to determine if the level of student-faculty interaction for nontraditional online learners seeking degree completion at Excelsior College would differ from NSSE findings if survey items related to this benchmark were written in a context consistent with SFI in the online learning environment.

Purpose of the Study

Better than 100,000 nontraditional college students have completed their degrees through Excelsior College's various degree programs, removing barriers such as time, travel, and students' needs to maintain full-time employment (Excelsior College, 2010b). Universities across the country such as University of Massachusetts at Amherst (www.umass.edu/uww/), and Skidmore College University (www.skidmore.edu/uww/) offered what was called "Universities Without Walls" programs. When taking a closer look, the curricula were more of a blended model in which online activities are incorporated into the traditional classroom setting.

The intent of NSSE is to help colleges and universities identify opportunities for improvement, to assist future college students in learning about how students' time is spent, and the gains realized from attending one institution versus another (NSSE, 2010b). However, Schneider (2009) raised questions regarding the use of NSSE as a comparative tool between colleges as well as its reliability and validity because "almost all of the variance in NSSE scores occur within institutions and very little variance occur

between them" (NSSE as A Tool section). In addition, surveys used to measure student engagement and the quality of the learning experience should be based on the model used to deliver course content.

The constructivist model has been found to be best suited for facilitating online learning (Bangert, 2005, 2006; Clark & Rossiter, 2008; Ruey, 2010; Taylor, 2007). The success of this teaching-learning model is dependent on student-faculty interaction (Ruey, 2010). As already noted, if survey findings are to be valuable to an institution and future students, the items on the survey should be relevant to the specific learning environment, and the underlying andragogical construct. When exploring online learning programs offered by colleges and universities, future students should understand that survey results for the different settings of traditional face-to-face and online environments are not comparable when weighing benchmarks between them.

Kuh (2001) pointed out that "the NSSE project revolves around college students . . . and is intended to foster talk about collegiate quality" (p. 12). Such conversations identified opportunities for quality improvements which, if addressed, moves institutions of higher education closer to their goal of positive student outcomes. However, it is not clear if these findings are accurate and applicable to the online learning environment. According to Bangert (2005) student evaluations, such as NSSE, SEEQ, and CIEQ are not developed for the online learner as these evaluations do not take into account constructivist-based, student-focused online teaching-learning methodologies. As a result, Bangert (2005) developed *The Student Evaluation of Online Teaching Effectiveness* (SEOTE) based upon Chickering and Gamson's (1987) *Seven Principles for*

Good Practice in Undergraduate Education. SEOTE also takes into consideration constructivist teaching methods and learner-centered principles.

Like NSSE and other student survey tools, Bangert's (2005) SEOTE tool is rooted in the *Seven Principles for Good Practice in Undergraduate Education*. However, the most important difference of SEOTE is that it measures students' satisfaction with the quality of teaching and learning in the online learning environment (Bangert, 2006). Therefore, data collected utilizing the SEOTE student-faculty interaction survey items may prove to be more valuable to EC's quality improvement initiatives than their NSSE data.

One of the most important strategic goals of Excelsior College is to "achieve exceptional student success whereby those entering Excelsior College programs graduate at rates that exceed similar, adult-serving national institutions" (Excelsior College, 2009, p.1). The college collects student engagement rates and related data for the overall college population. The data is also reported for each school and individual courses. The college distributes findings internally, and makes them public by placing them on the website as part of *Transparency by Design* initiative. Through this initiative, participating colleges and universities voluntarily provide the adult student with data and information to assist them in making an informed choice regarding distance and online learning opportunities (WCET Advance, 2010). When sharing such vital data with the public it is paramount for the data to be accurate and provide a clear picture of the college. Excelsior College must ensure the accuracy of the reported data, and that the information made public is applicable to the online teaching-learning environment and nontraditional college students.

This quantitative study's purpose was the exploration of the quality benchmark of student-faculty interaction of nontraditional baccalaureate level college students seeking degree completion through online programs at Excelsior College. Data was collected via an electronically delivered student survey utilizing Bangert's (2006) ten student-faculty interaction items as listed in Table 1. This data was compared to Excelsior College's 2011 NSSE findings to determine if overall scores for student-faculty interaction were significantly different.

Table 1

Student-Faculty Interaction Survey Items

NSSE[a]	SEOTE[b]
Discussed grades or assignments with instructor.	My questions about course assignments were responded to promptly.
Talked about career plans with a faculty member or advisor.	The amount of contact with the instructor was satisfactory (e.g., email, discussions, office hours)
Discussed ideas from your readings or classes with faculty members outside of class.	I was provided with supportive feedback related to course assignments.
Received prompt written or oral feedback from faculty on your academic performance.	Instructors were assessable to me outside of online courses.
Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc).	Instructors communicated effectively.
Worked on a research project with a faculty member outside the course or program requirements.	I felt comfortable interacting with instructors and other students. Instructors were enthusiastic about online learning. My questions about BlackBoard were responded to promptly. Courses used examples that clearly communicated expectations for completing course assignments.

[a] *Note.* Adapted from "NSSE Survey Instrument," by National Survey of Student Engagement, 2008. Copyright 2011 by The Trustees of Indiana University.

[b] *Note.* Adapted from "The Development of an Instrument for Assessing Online Teaching Effectiveness," by Bangert, A. W., 2006, *Journal of Computing in Higher Education, 35*(2), pp. 234,235. Copyright 2006 by Journal of Computing in Higher Education.

Phipps and Merisotis (1999) noted, "Technology cannot replace the human factor in higher education" (p. 31). However, the technology behind learning management systems continues improve; enabling face-to-face, real time instruction adding a dimension to the asynchronous platform of online learning once thought to be unachievable. Despite these improvements, the controversy rages on as evidenced by the slow but steady embrace of technology in postsecondary education and its disproportionate acceptance from institution to institution (Pascarella &Terenzini, 2005). It is evident that many challenges still exist. There is no doubt that continued research in the area of student-faculty interaction is necessary to support online learning as a valuable and vital component of the educational experience for today's nontraditional college students and beyond.

Research Question

The research question to be answered is as follows: Does Excelsior College's benchmark score for student-faculty interaction differ from their National Survey of Student Engagement score if survey items are presented in a context consistent with the online learning environment of nontraditional college students?

Limitations and Delimitations

Limitations

This study was limited to a single online college and focused on senior level students enrolled in baccalaureate degree granting programs. A second limitation was possible researcher bias as the researcher is an adjunct online educator for one of Excelsior College's baccalaureate degree programs.

Delimitations

In addition to the narrow focus of one online college, delimitations of this study included participants hailing from one level of degree program, and limiting the population to senior year students. These same limitations also affected the potential sample size for the survey. The same student population from the college who participated in 2011 NSSE was the population from which the study sample was derived. This may have influenced reliability and generalizability of the study.

Definitions

Andragogy

The definition of andragogy, first introduced in the 1970's by Malcolm Knowles, has been debated and researched by those seeking to understand the differences between how adults and children learn (Knowles, Holton III, & Swanson, 1998). Knowles et al. (1998) contend that andragogy, in its simplest sense, "speaks to the characteristics [of the adult] learning transaction [and] is a set of core adult principles that apply to all adult learning situations" (p. 2) grounded in six principles:

1. The learner's need to know.
2. Self-concept of the learner.
3. Prior experience of the learner.
4. Readiness to learn.
5. Orientation to learning.
6. Motivation to learn. (Knowles et al.,1998, p. 3)

Asynchronous Communication

Asynchronous communication is communication that occurs at different times; from different places; and where no direct person-to-person interaction takes place (Phipps & Merisotis, 1999, p. 11). Communication may be text-based, in the form of audio or video recordings, or in any combination of these mediums.

Computer-Mediated Learning (CML)

CML occurs when the learner uses a computer as the primary tool for learning, taking advantage of materials and information developed for use with current technology (Elbeck & Mandernach, 2009).

Constructivist Theory

Knowledge is constructed through an individual's reflection on their thoughts, experiences, and the contributions of others. Students take an active role in their learning through discussion, negotiation of ideas, debate, and collaborative problem solving (Ruey, 2010).

Distance Learning/Online Learning

These terms share the same meaning and may be substituted for one another.

> A physical separation of teachers and learners, including the application of information technology (and infrastructure) to educational and student-related activities linking teachers and students in differing places and where communications are mediated by some type of electronic means in real or delayed time. (United States Distance Learning Association, 2010, Glossary of Terms section, p. 44)

Nontraditional College Student

The average ages of these adult students is 25 years or older. Typically, these students are full or part time learners; and may be responsible for dependents such as a

spouse or children (National Center for Education Statistics, 2002; Excelsior College, 2010b; Chen, Gonyea, & Kuh, 2008).

Pedagogy

Pedagogy is "the art of teaching" (Phipps & Merisotis, 1999, p. 31).

Senior Students

Excelsior College has continual enrollment, offering courses and exams on a monthly basis. As a result, the college defines senior students as enrolled students who have earned $\geq$ 90 credits (L. Daniels, personal communication, December 16, 2010).

Student Engagement

Student engagement is the "personal effort students put into their educational [activities that lead to successful] outcomes" (Hu & Kuh, 2002, p. 555). These efforts include time spent studying, student-faculty interaction, student-to-student interaction, and use of available resources (Hu & Kuh, 2002).

Student-Faculty Interaction

"Meaningful interaction [students have] with faculty" (Chen et al., 2008, p. 4) which may occur inside or outside the learning/classroom environment are the components of student-faculty interaction.

Synchronous Communication

As a construct of online learning, synchronous communication "occurs when teacher and student are present at the same time during instruction-even if they are in two different places" (Phipps & Merisotis, 1999, p. 11).

Importance of the Study

Since the introduction of andragogy and subsequent technological advances, the importance and integral role that student-faculty interaction plays in adult education and the evolving forum of OLEs cannot be stressed enough (Chickering & Gamson, 1987; Knowles et al, 1998; Kuh, 2001; Williams, 2004). With online learning environments quickly becoming the option of choice, needs of the nontraditional learner must be addressed including student-faculty interaction (Clark, 2008). This key benchmark of student engagement, an integral element for successful online learning, must be accurately measured if findings are to be used as a basis for quality improvement efforts and to validate the importance of student collaboration with faculty towards successful achievement of student outcomes (Pascarella & Terenzini, 2005).

Various research findings indicated a strong positive correlation of the virtual environment for student-faculty interaction in addition to using it as a teaching-learning modality (Laird & Kuh, 2004, p. 3). The advent of email and OLEs remove barriers related to time and distance and provide a mechanism that strengthens student-faculty interaction (Laird & Kuh, 2004; Flowers, Pascarella, & Pierson, 2000).

It is evident that student-faculty interaction plays an integral role in achievement of successful outcomes for the online learner. As nontraditional college students engage in meaningful learning, they will continue to seek out answers to questions which influence their lives. These lifelong learners emerge from the virtual learning environment into the virtual working environment constructing and transforming old knowledge into new knowledge, which would be negatively impacted without a high degree of student-faculty interaction. The results of this study may inform those who are

skeptical about the quality of online learning that the virtual learning environment provides for a key component of student engagement; rich and meaningful student-faculty interaction.

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

The demographics of college students continue to change. First time and returning students are older, have high expectations, and seek almost immediate return on their investment of money and time. Technology makes it possible for those otherwise unable to attend college to pursue their dreams, satisfy their yearning for lifelong learning, and make way for career advancement. To meet the demand of these nontraditional college students, colleges and universities are jumping on the technology train offering teaching and learning through computer-mediated learning applications (Larreamendy-Joerns, & Leinhardt, 2006). However, education does not happen in a vacuum. It requires a reciprocal relationship between students and faculty.

Literature related to online and distance education dates back to Gagne's work in the 1960s; while learning theory dates back even further to Brunner's work in the early 1900's. It is only in the past 20 years that the quality and effectiveness of online teaching and learning have migrated closer to the top of the list for many academics and researchers. One of the critical quality items in the literature is in regards to the value and necessity of student-faculty interaction for the success of the nontraditional college students of today (Chen, Gonyea, & Kuh, 2008).

Online Teaching-Learning Theory

Behaviorism

Online teaching and learning is rooted in several theories including behaviorism, cognitive theory, and constructivist theory (Culatta, 2011). According to Herod (2002) learning takes place on a continuum from "rote learning to reflective learning" (Section

1.2). Rote learning can occur through operant conditioning, stimulus response induction, and generalized reinforcement. This theory dates back to Pavlov's (1924) classical conditioning experiment with salivating dogs and B. F. Skinner's (1979) work with operant conditioning. This approach has its place in education and can be used in the simplest form of computer-mediated lessons such as tutorials and drill and practice. It is not the best choice from which to base learning for nontraditional adult learners who use a reflective, transformational process to understand the meaning of their experiences (Taylor, 2007).

Transformative Learning

In 1975, Mezirow introduced transformative learning theory, whose tenets intertwine in constructivist theory. Transformative learning involves critical thinking, allowing learners to question theory and beliefs that define and effect thinking and doing (Mesirow, 2006). Transformative learning addresses learning types and processes, while allowing learners to transform meaning (Kitchenham, 2008, p. 110). Transformative learning theory focuses

> on how we learn to negotiate and act on our own purposes, values, feelings, and meanings rather than those we have uncritically assimilated from others - to gain greater control over our lives as socially responsible, clear-thinking decision makers. (Mezirow, 2000, p. 8)

According to Taylor (2007) transformative learning is the most popular adult learning theory in higher education which is built upon communication. This was supported by Mezirow (2000) who stated, "Learning involves language to articulate experiences to ourselves and others" (p. 5). However, Mezirow explained that not all learning involves words; it can be an emotional experience, including beliefs, culture, experiences, and an individual's unconscious knowledge. Transformative learning also

provides for individual critical reflection allowing learners to transform their personal views, conclusions, and emotional reactions based on newly acquired knowledge (Kitchenham, 2008; Mezirow, 1991; Taylor, 2007).

In the online learning environment critical reflection is accomplished by allowing learners time to think seriously and carefully by including questions about content that stimulate reflection on the material, allow learners to process the information presented, and provide for internalization of concepts (Ally, 2008). Transformative learning occurs via discussion and sharing information among students and educators in a safe and trusting environment (Taylor, 2007). This environment is achievable through student-faculty and student-student interaction which engages, stimulates, and allows for reflection (Cragg, Plotnikoff, Hugo, & Casey, 2001; Mezirow, 2000; Taylor, 2007). Despite this, there are critics who continue to doubt the value of online learning. Boyer's (2006) collaborative learning research model supported the premise that online learning is learner-centered, and provides for active participation of the adult learner.

Boyer (2006) and Anderson (2008) also pointed out another key aspect of transformational learning, the uniqueness of each learner. By responding to individual learning styles, the online facilitator promotes dialogue between and among students and facilitator laying the foundation for effective group learning while instilling feelings of community. In this safe community of the online classroom, learners look within themselves to understand why they assume the way they do, and how preconceived ideas influence their judgment. Through reflection on prior experiences, the learner is led to change or construct new meanings that come about through engaging in interactive group learning (Mezirow, 1991).

Constructivist Theory

The origins of constructivist theory date back centuries and contended that adult learners take an active role, are the center of their learning, and use new knowledge to build upon prior knowledge to construct new meaning (Anderson, 2008; Dalgarno, 1996; Duffy & Cunningham, 2008; Kane, 2010; Mezirow, 1991). Prince and Felder (2006) spoke to this philosophy:

> A well-established precept of educational psychology is that people are most strongly motivated to learn things they clearly perceive a need to know … [and] are unlikely to learn if the information has few apparent connections to what they already know and believe. (¶ 2, 3)

Constructivism places the learner at the center. However, the learner must have an interest in the topic, and engage in the learning process. If not engaged, students will not be successful (Hu & Kuh, 2002).

Kane (2010) supported constructivist theory by reminding educators that adult learners are "the leaders of their own learning efforts" (p. 376), while Rosen and Salomon's (2007) research concluded that constructivist learning environments are more successful at meeting outcomes than traditional teaching-learning settings. Together with understanding the learning methods that lead to successful learner outcomes, online educators must embrace a self-directed, student-centered, constructivist approach to instructional design.

In the virtual learning environment the facilitator's role is to use learning activities that focus on the learner's needs, wants, and learning style (Duffy & Cunningham, 2008; Bruner, 1966). Duffy and Cunningham (2008) went on to explain that Bruner stressed the role of the educator as "guiding [the learner's] discovery process [by using] questions and issues that held personal and social relevancy for the learner" (p.

8). Kane (2010) also emphasized this approach by taking it a step further in challenging today's educators to embrace collaborative learning through construction of active student-student and student-faculty learning communities. He also acknowledged the importance of lifelong learning, and the teacher's responsibility to promote learning as the foundation from which people move through the chapters of their lives to include how they construct new meaning by building on old knowledge with new knowledge (Kane, 2010).

The constructivist approach is the basis for the online learning environment where learners take an active role in gaining new knowledge through technology rich learning platforms (Duffy & Cunningham, 2008; Rosen &Salomon, 2007). By maximizing the technology of the online environment, educators assist learners to meet learning objectives by encouraging them to construct knowledge through active team and individual problem solving opportunities, critical thinking, and reflection (Rosen &Salomon, 2007).

The Seven Principles

Chickering and Gamson (1987) are well known for their research that led to the development of the *Seven Principles of Good Practice in Undergraduate Education*. These seven principles are the culmination of 50 years of research and are intended to provide teachers with guidelines to use in efforts to improve teaching and learning in post secondary education (Graham, Cagilitay, Lim, Craner, & Duffy, (2001). Chickering and Gamson (1987) made it clear that each of the seven principles can be used alone, but when combined they are complementary to each other and enhance the probability of student success. These principles are not limited by culture, subject matter, age of

learners, or how well prepared the learner is for undergraduate studies. The principles focus on the how of teaching and learning, rather than the subject matter itself (Chickering & Gamson, 1987). The seven principles of good practice are as follows:

1. Encourages contact between students and faculty.
2. Develops reciprocity and cooperation among students.
3. Encourages active learning.
4. Gives prompt feedback.
5. Emphasizes time on task.
6. Communicates high expectations.
7. Respects diverse talents and ways of learning. (Chickering & Gamson, 1987, pp. 2-6)

It is interesting to note the number one principle speaks to the student-faculty connection. Placing this principle in the first position infers its importance for the success of the adult learner. Although these principles originated from research conducted in the traditional college setting, they have proven effective for online teaching and learning.

Graham et al. (2001) utilized the seven principles in their research of four courses delivered online at a large university. Their research findings supported the effectiveness and rigor of Chickering and Gamson's (1987) seven principles and the value of student-faculty interaction in the online learning environment. Graham et al. (2001) indicated the value of setting clear guidelines regarding teacher accessibility for students, timeliness of responses to student inquires, and identifying the types of questions that should go to the teacher versus technical questions that should be steered to technical support staff. The online environment provides a forum for learning from instructor and peers. Faculty

should encourage active and meaningful participation from all students, provide prompt feedback to discussions, and post course expectations early in the term (Graham et al., 2001). These types of interactions encourage student engagement, increase the quality of the learning experience, and increase student satisfaction, while guiding online learners toward successful outcomes (Chen, Gonyea, & Kuh, 2008; Clark & Gibb, 2006; Cole, John-Steiner, Scribner, & Souberman, 1978).

Through the decades the seven principles have become the hallmark for evaluating undergraduate teaching and learning and related research as evidenced by the works of Graham, et al. (2001); Grant and Thornton (2007); Hu and Kuh (2002); and NSSE (2010). Grant and Thornton's (2007) findings of the online learning environment paralleled what the aforementioned researchers have found: "faculty-student interactions within the online environment can be predictors of student learning and satisfaction" (p. 2). Bates (2000) along with Grant and Thornton (2007) purport that online teaching and learning not only opens doors to creative thinking about the virtual classroom, but also demands it.

In discussing the relationship of the constructivist theory to adult learning, Grant and Thornton's (2007) research led them back to the seven principles and their applicability to online adult learning. They discovered the coupling of constructivist theory with the seven principles to be the backbone of successful adult online learning strategies. Grant and Thornton's (2007) strategies concluded that interaction and interconnectivity of the student-faculty relationship is one of three best practices for the online learning forum. Taking a constructivist approach coupled with tenets of transformative learning theory, educators guide adult learners along the path of their

educational goals (Larreamendy-Joerns & Leinhardt, 2006). Meeting these needs not only influences learning processes, but also the learning environment and instructional design (Larreamendy-Joerns, & Leinhardt, 2006).

Influencing Factors

The demographics of the learners, individual student learning styles, faculty comfort level with the learning management system, and continual technological advances have an impact on online learning and teaching. Misconceptions of online learning can also influence the overall quality of learning as well as learner outcomes (Kirtman, 2009). In addition, both learners and educators must have the necessary characteristics to be successful in the virtual world of online learning.

Characteristics of Nontraditional Online College Students

The average ages of these adult students is 25 years or older. They may be full or part time learners. Typically, these students are usually employed full or part time; and may be responsible for dependents such as a spouse or children (National Center for Education Statistics, 2002; Excelsior College, 2010b; Chen, Gonyea, & Kuh, 2008). For online learners to be successful, educators must be responsive to the needs and characteristics of the nontraditional adult learner who is

- Problem centered.
- Results orientated.
- Self-directed.
- Skeptical about new information; preferring to try it before accepting it.
- Seek education that relates or applies directly to their perceived needs, is timely, and relevant to their current lives. (RIT, 2011, p. 1)

In addition, adult students bring their knowledge, life experience, and personal values into their classrooms (Cranton & King, 2003; Kirtman, 2009; Mezirow, 2006; RIT, 2011). Given this, adult learners use ideas and truths from fellow learners and educators to appraise their own views through critical thinking towards constructing new meaning (Cranton & King, 2006). One key aspect of adult learning is the necessity for adult learners to become aware of how they think and to take responsibility for their own learning (Kane, 2010; Knowles, 1980).

Characteristics of Online Educators

The role of the online educator is paramount to the success of any online educational endeavor as they are key factors in how successful programs and courses will be. According to Menchaca and Bekele (2008) successful online courses must have faculty who will

- Support student motivation.
- Optimize appropriate technologies.
- Choose relevant learning approaches.
- Design, offer, and monitor online courses. (p. 248)

By engaging students, providing prompt feedback, and being available to students, faculty increase both student satisfaction and success (Kirtman, 2009; Menchaca & Bekele, 2008).

Online educators hold an interest in teaching and benefit from the endless possibilities that online teaching and learning offers them as individuals and as educators (Larreamendy-Joerns & Leinhardt, 2006). Educators who embrace technology possess imagination and out of the box thinking that affords vivid, quality, and creative

presentation of course content (Larreamendy-Joerns, & Leinhardt, 2006). Based on the constructivist model, online educators support problem solving and learner-centered activities while they ensure timely feedback and guide learners to be self-directed (Fleischer, 2006; Mezirow, 2006; Larreamendy-Joerns & Leinhardt, 2006; Taylor, 2007). Online educators pride themselves on providing courses that are rigorous, "possess the signature of academic excellence, and incorporate sound cognitive and instructional principles" (Larreamendy-Joerns, & Leinhardt, 2006, p. 571). Rather than employing didactic methods of teaching, the online educator facilitates and guides learners as they engage in solving problems that are relevant to real life situations (Rosen & Salomon, 2007).

Online educators possess the willingness and ability to meet individual student's needs by designing courses that provide the depth and breadth of content and instruction that adult learners can relate to real life and transform into new knowledge (Larreamendy-Joerns & Leinhardt, 2006). Online educators are dedicated to providing an interactive, meaningful, and rich learning experience that obliterates feelings of isolation that can negatively affect learners' potential, success, and satisfaction (Larreamendy-Joerns, & Leinhardt, 2006). To accomplish this, educators incorporate multimedia into the online experience. Videos, graphics, color, interactive learning activities, real-time chats, and teacher office hours both engage and appeal to a variety of student learning preferences (Larreamendy-Joerns, & Leinhardt, 2006).

Kanuka (2008) pointed out the role individual philosophy plays in an educator's opinions about online teaching and learning sharing that educators who understand their beliefs can identify what they are doing and why. Before online educators can be

successful, they must first understand themselves. It is only then that they can ensure they are genuine and can embrace learners in a supportive environment of mutual respect (Taylor, 2007). Knowing oneself also allows educators to be open to and use the variety of knowledge and experiences learners bring to the virtual classroom as an additional resource for learning (Cranton & Carusetta, 2004; Knowles, 1980; Taylor, 2007).

Technology

Various learning environments rely on unique learning experiences and processes which address individual learning goals, and have same ultimate endpoint of meeting learners' needs (Menchaca & Bekele, 2008; Rosen &Salomon, 2007). Technology provides a forum for interaction between and among students and faculty in a variety of ways (Larreamendy-Joerns, & Leinhardt, 2006). The presentation capabilities of online learning management systems such as text, audio, video, and simulations provide for a richer learning experience than could ever be achieved through text alone or stagnant presentations (Larreamendy-Joerns, & Leinhardt, 2006). According to Kanuka (2008), the advantages of online learning include the following:

- Ability to provide just-in-time learning.
- Increased access.
- Removal of time, place, and situational barriers.
- Cost effectiveness.
- Greater [student and teacher] accountability.
- Increased interaction.
- Provision of future employment skills for students.
- Effective support for lifelong learning. (p. 92)

Online learning management platforms allow for ease of communication which, as noted by Knowles (1980) is essential for the success of any teaching-learning experience. Availability of interactive synchronous and asynchronous communication among students and between student and faculty in the online environment is paramount for both student and teacher satisfaction (Menchaca & Bekele, 2008). As Menchaca and Bekele (2008) pointed out, the infrastructure and technological tools are significant factors for success.

In the past 30 years there have been various technology-intensive learning platforms introduced for online learning. At first, studies focused on the effectiveness of technology for teaching and learning as well as student outcomes. Studies explored student feelings about online learning and how satisfied students were with the programs. Clark suggested the underpinning thoughts were that "technologies were merely vehicles of delivering instruction, and did not influence student achievement" (as cited in Anderson, 2008, p. 15). Menchaca and Bekele (2008) agreed with Knowles (1980) and Rosen and Salomon (2007) that comparisons made to face-to-face environments overlooked that different learning environments are most likely suited to meet different learning goals and outcomes. More recent studies took into account the critical elements of student and teacher experiences with online learning platforms, instructional design, and the teaching-learning methodologies employed (Menchaca & Bekele, 2008).

Many educators continue to stand firm in their conviction that online learning cannot equal the traditional face-to-face learning environment (Kirtman, 2009). However, research findings such as Bangert's (2005, 2006) *Student Evaluation of Online Teaching Effectiveness* and Allen and Seaman's (2010) *Class Differences: Online*

Education in the United States, 2010 indicate the positive impact of technology for today's nontraditional college students. Interestingly, research findings also indicate that like traditional learning environments, student-faculty interaction has a huge impact and plays a significant role in the success of all college students (Allen and Seaman, 2010; Bangert, 2005, 2006; Kirtman, 2009; Menchaca & Bekele, 2008; National Survey of Student Engagement, 2010b).

Student Engagement

Student engagement is the personal time and effort students place into their learning activities that culminate with successful outcomes (Hu & Kuh, 2002). These efforts include time spent studying, student-faculty interaction, student-to-student interaction, and use of available resources (Hu & Kuh, 2002). If learners are not engaged they will not invest the time and effort necessary to be successful.

Richardson and Newby (2006) emphasized that each learning environment is unique to itself, stressing the importance of using the right tools for collecting meaningful, quality data for each. They also pointed out the importance of understanding and evaluating "how learners learn" (p. 23) by focusing on the tenets of constructivism including teaching-learning strategies and the importance of prior experiences on the learning process. Richardson and Newby (2006) concluded that online learners are independent, take the lead in their learning, and as is true with transformative learning, they expect faculty to guide them as they transform their personal views and conclusions.

Measuring engagement of the online nontraditional learner takes research of the effectiveness of this teaching-learning modality to greater heights. Rather than relying on measures most frequently cited for traditional settings such as test scores, student

attitudes, and overall satisfaction, student engagement evaluates the quality of the learning taking place (Robinson & Hullinger, 2008). This quality learning experience is also an expectation of the adult learner.

Applicability of Student Engagement to Online Learning

Student engagement is no less important for the success of nontraditional online college students than for students attending traditional college campuses. In fact, student-faculty interaction is a key factor for student persistence and success (Chickering & Gamson, 1987; Knowles et al, 1998; Kuh, 2001; Robinson & Hullinger, 2008; Williams, 2004). What is different is the forum used for such interaction. In the online environment, student-faculty interaction may occur via email, in course postings and discussion forums, through video conferencing, teleconferencing, or webinars.

Rabe-Hemp (2009) pointed out that some scholars are determining that student-centered online learning is more advantageous than the teacher-centered approach taken in traditional face-to-face settings. This supports Pond (2002) who also focused on the end user/learner as the cornerstone of the online learning paradigm. However, what remains are doubts concerning the effectiveness of student-faculty interaction in the online environment (Rabe-Hemp, 2009). Richardson and Newby (2006) stressed the importance of knowing how students learn, while Cross (1999) aptly reminded educators, "Until we know what knowledge is, we can't really say how to attain it" (p. 257).

The five aspects for student success studied by Kuh, Cruce, Shoup, Kinzie, and Gonyea (2008) included student-faculty interaction and the commitment students make to their studies, which are not only hallmarks for online student engagement, but also are rooted in the well regarded *Seven Principles of Good Practice in Undergraduate*

Education (Chickering & Gamson, 1987). Bangert (2005, 2006) and the National Survey of Student Engagement (2010b) based their survey tools on these principles. This is an important correlation given the high regard to which the *Seven Principles* are held in the arena of higher education (Chen et al., 2008; Cross, 1999; Kuh, 2001).

Student-faculty interaction is an integral component in the formation of collaborative learning communities. This interaction has also proven to be a necessary ingredient for student engagement and satisfaction (Anderson, 2008; Flowers, Pascarella & Pierson, 2000; Kuh et al., 2008; NSSE, 2010; Bangert, 2005, 2006; Rabe-Hemp, 2009). Engaged online learners are autonomous, self-directed, and persistent, all qualities leading to successful outcomes (Rabe-Hemp, 2009).

Quality of Online Learning

Measuring the quality of education is not new to any educator or school administrator. Since the very beginnings of formal education parents, lawmakers, regulators, students, and the general public have demanded evidence that educational programs at all levels maintain the highest standards possible. The challenge of measuring quality is assuring uniformity and consistency of the assessment (Pond, 2002). Quality measures not only come in the form of academic achievement scores, but also from the teaching and learning methods used, learning materials employed, and delivery modality practiced. While providing for flexibility and access for those who would not otherwise benefit from higher education, some purport the new paradigm of online education "creates significant challenges for quality and accreditation as leaders struggle with matching the new reality to old thinking" (Pond, 2002, p. 2).

According to Pond (2002) "accreditation is a process by which an institution demonstrates to an external body that it does or can meet whatever criteria have been prescribed or mutually agreed upon as indicative of quality education" (p. 5). Pond (2002) made a most astute observation; in today's world of electronic teaching and learning the most important stakeholders are those at the center of the teaching-learning conundrum. The end user, better known as the learner or student, should play an integral role in the process of quality measurement. Pond (2002) also went out on a limb by introducing the notion that traditional accrediting bodies may no longer be the best choice when it comes to measuring online learning quality, arguing that online learning quality improves when measures are based on outcomes rather than processes.

Conclusion

As adult learners, nontraditional online students expect to add new knowledge to their current knowledge, and attain skills they did not have before beginning their educational journey (Kane, 2010; Mezirow, 2006; Pond, 2002; RIT, 2011; Taylor, 2007). When it comes to online learning the various sets of benchmarks in use have common themes from pedagogy to instructional design to student-faculty interaction. No matter what set of benchmarks one references, the underlying themes trace back to Chickering and Gamson's (1987) *Seven Principles of Good Practice in Undergraduate Education*. From more recent tools such as Shelton's (2010) *Quality Scorecard for the Administration of Online Education Programs* and Bangert's (2005, 2006) *Student Evaluation of Online Teaching Effectiveness* to the decade old *National Survey of Student Engagement* (2010b), the seven principles pervade. Pond (2002) supported the notion that a most important quality indicator/benchmark is interaction. Here again, the

benchmark of student-faculty interaction rings through as a necessary measure and influencing factor for the success of the nontraditional online learner.

CHAPTER THREE: METHODOLOGY

In 2008, Excelsior College participated in the National Survey for Student Engagement (NSSE). The results for the benchmark of student-faculty (SFI) interaction were lower than both NSSE aggregate data and the "online educators group including American Public University System, Capella University, Charter Oak State College, Kaplan University, SUNY Empire State College, and Governors University" (Bose & Daniels, 2008, p. i). This quantitative study's purpose was exploration of the quality benchmark of student-faculty interaction of nontraditional baccalaureate college students seeking degree completion through online programs at Excelsior College. In 2011, Excelsior College participated in NSSE. A comparison between Excelsior College's 2011 NSSE data and data obtained through a resurvey of participants using student-faculty interaction items from Bangert's (2005, 2006) *Student Evaluation of Online Teaching Effectiveness* (SEOTE) tool may bring insight into student-faculty interaction for the nontraditional online learner.

Research Question

Given the quantitative design of this study, the most important element was the research question as it set the stage for the research methodology and design (Bryant, 2004). Since research questions should be simple and direct (Polit & Beck, 2010), the research question to be answered was as follows: Will the rate of Excelsior College's student-faculty interaction differ from their 2011 National Survey of Student Engagement scores when participants are resurveyed using student-faculty interaction components of the Student Evaluation of Online Teaching Effectiveness tool? Study findings may inform Excelsior's Dean of Outcomes Assessment and Institutional Research (OAIR),

deans and directors of each school of the college, and the college-wide community. The self-reported student data may contribute to quality improvement efforts of Excelsior College as a means of identifying opportunities for improvement. Identified opportunities may influence course redesign efforts to ensure student learning experiences are productive and meaningful (Bangert, 2006).

Variables

The dependent variable was student-faculty interaction of nontraditional online learners, while the independent variables were the two survey tools, 2011 NSSE and SEOTE. Although both tools are based on Chickering and Gamson's (1987) *Seven Principles of Good Practice in Undergraduate Education*, the wording, scoring scale, and quantity of items related to SFI differ between the tools (see Table 1). For survey results to be a valid indicator of SFI for nontraditional online learners, survey instruments should be specifically designed to capture feedback that directly relates to teaching-learning practices employed as well as the learning environment (Bangert, 2005).

Hypotheses

This quantitative study was designed to compare the two independent variables, survey items from 2011 NSSE and Bangert (2006), and correlate any differences on the independent variable of student-faculty intervention. Statistical tests seek to reject the "null hypothesis, [indicating] there is a relationship between the variables" (Polit & Beck, 2010, p. 365) and to prove the hypothesis is true. The hypotheses are as follows:

H_o: There is no difference in student-faculty interaction mean survey scores between 2011 NSSE and the resurvey using SEOTE survey items.

H_1: There is a significant difference between the mean survey scores for student-faculty interaction for 2011 NSSE and the resurvey using SEOTE survey items.

Since NSSE measured frequency of student-faculty interactions and SEOTE measured satisfaction with SFI, two views of student perspectives for the same benchmark were measured. Therefore, there are no statistical tests available to prove or disprove the hypothesis.

Research Design

The evaluation of SFI used self-reported data obtained via survey methodology. Survey items from Bangert's (2005, 2006) SEOTE tool intended to measure satisfaction of student-faculty interaction was provided to participants electronically via Qualtrics™. This online survey tool allowed for anonymous data collection and streamlined the analysis process. Comparison of the data from this survey to 2011 NSSE frequency data for SFI may determine if there are any significant differences in survey results for this benchmark.

Location and Demographics

This study took place at Excelsior College, a private, not-for-profit, online institution of higher education located at 7 Columbia Circle, Albany, NY. Online programs and courses are delivered via the internet utilizing a secure online learning management system. Students attending Excelsior College live across the United States as well as in countries outside U.S. borders. Utilizing an electronic survey methodology aligned with the communication methods to which this demographically diverse population is accustomed.

Based on Excelsior College Class of 2010 At-A-Glance report (2010a) there were

> a total of 2,744 baccalaureate graduates in July 2010. Females outnumbered males 50.6% to 49.4% respectively. Graduates represented all 50 states in the U.S. plus the District of Columbia, Guam, Puerto Rico and the U.S. Virgin Islands. Graduates also come from 20 other nations worldwide. Graduates from minority (self reported) groups equated to 30%, 30% of graduates were members of the U.S. military. The oldest graduate was 91 years of age, the youngest 17 years old. The average age of graduates was 38. (pp. 1-2)

Population and Sampling Procedures

To ensure as valid a comparison of the two survey tools as possible, the population and sampling procedures must mirror each other. To this end, the same population used for the 2011 NSSE survey provided the basis of sampling for the SEOTE student-faculty interaction survey. NSSE (2011) population size verification guidelines call for "all full-time and part-time first-year and senior-year baccalaureate degree-seeking students enrolled in Fall 2010 and considered probable graduates for Spring or Summer 2011. Fall 2010 graduating seniors are not to be included" (pp. 2, 3).

Excelsior College's administration decided to limit possible participants to all Excelsior College's senior-year students only. This decision was made given that Excelsior College is a degree completion institution, and as such, Excelsior College does not have what are traditionally known as first-year students (L. Daniels, personal communication, September, 2010). According to Ms. Daniels, a research director in OAIR, senior-year students at Excelsior College are those "students who have successfully completed 90 or more credits of their bachelor degree requirements" (personal communication 2010). All senior-year students, as defined by the college, received an invitation to participate in the SEOTE student-faculty interaction electronic survey. Students deemed eligible for participation in the 2011 NSSE determined the

number of survey participants. The Raosoft® (2004) sample size calculator for a 95% confidence level and a 50% response distribution indicated the minimal number of participants to be 345 from the eligible population of 3,306 individuals.

Instrumentation

Excelsior College has adopted Qualtrics™ as their electronic survey tool which was used to distribute and gather data for this cross-sectional survey. With permission from Bangert, (see Appendix A) the survey tool included the same ten survey items used for his studies of SFI along with one open-ended question. Staying true to Bangert's (2006) tool, a 6-point Likert scale "ranging from *Strongly Agree* (6) to *Strongly Disagree* (1)" (p. 232) represented the ordinal data for each survey item (see Appendix B).

Validity

The first validation study of Bangert's tool was conducted in spring 2004 with "responses from 498 undergraduate and graduate students enrolled in online courses where content validity was established by a panel of online instructors who reviewed the items for clarity, accuracy, and appropriateness" (Bangert, 2004, p. 232). The panel identified items for review and revision. After several factor analysis procedures, it was determined a four factor solution using "26 of the original 35 items" (Bangert, 2008, p. 41) were best suited for the tool. These four factors were "student-faculty interaction, active learning, time on task, and cooperation among students" (Bangert, 2008, p. 41). Factor I, student-faculty interaction, "yielded high levels of internal consistency reliability yielding coefficient alpha of .94" (Bangert, 2008, p. 41). Bangert's study determined SEOTE items were consistent with both the constructivist model of higher education and the online learning environment.

A second study using SEOTE conducted in fall 2004 yielded responses from over 800 participants. This study validated findings from the first study (Bangert, 2005).

> The four factors were found to be the best in representing the dimensions of the original scale. The internal consistency reliabilities for all four SEOTE factors exceeded 0.80, indicating acceptable to high level of internal consistency reliability. In both validation studies Factor 1, student-faculty intervention, had an internal reliability of coefficient alpha of .94. (Bangert, 2008, p. 41)

Methodological Assumptions and Limitations

There were two assumptions for this study. First, it was assumed that an adequate sample size for the study would result from inviting all eligible senior year students to participate in the survey. The second assumption was that data collected from using SEOTE survey items for SFI might reflect a more accurate measure of student-faculty interaction than that found through Excelsior College's participation in 2011 NSSE.

The study findings may not be applicable to the entire nontraditional online degree seeking student population. It was limited to one online degree granting college, and included only senior level students. These limitations may constrict the study too much.

Procedures

With Institutional Review Board (IRB) permission from Excelsior College and Argosy University Online to conduct the research, all eligible participants for the survey were sent an electronic letter of consent requesting their participation in the survey. The letter (see Appendix C) outlined the purpose of the study, approximate time needed to complete the survey, confidentiality information, and plans for archiving the data for up to two years in a secured file. A link to the survey, embedded in the electronic letter, provided instant access to the survey at the time participants agreed to the conditions

outlined in the letter. Participants were also provided with the opportunity to request copies of the IRB approval document at any point of the survey process.

Data Processing and Analysis

Archived data including population and sample participant demographic information was accessible through the Excelsior College's databases, the college's digital repository system, the student information system (SIS), and Oracle Discoverer reports. These databases also housed Excelsior's 2011 NSSE data. Data analysis was completed using the Statistical Package for the Social Sciences version 17.0 (SPSS) software program.

SPSS is a powerful tool for the researcher providing a variety of statistical reports, graphs, and tables. Nominal and ordinal data retrieved from the SEOTE student-faculty online survey and uploaded from Qualtrics™ directly into Excel files could be imported into SPSS for querying. SIS contained demographic information for all Excelsior College students. Using SIS allowed for identification of participants that met the criteria as set forth by 2011 NSSE. This process ensured that SPSS reports were exclusive to Excelsior College's 2011 NSSE and SEOTE participants. The relative frequency of responses to 2011 NSSE survey questions related to student-faculty intervention (see Appendices D & E) and SEOTE questions could be reported aggregately or broken out by school and degree program. Central tendency measures were used to summarize findings.

Probability statistics determined the effect of independent variables on dependent variables through the distribution of the mean, median, and mode. With the two survey tools using differing parameters, NSSE frequency, and SEOTE satisfaction, no other

statistical measurements were applicable to the data. Reported as supportive findings, open-ended responses may be useful for Excelsior College's quality improvement efforts.

Conclusion

For research data to be meaningful, the researcher must ensure the data collected is valid and answers the research question. Data comparison between 2011 NSSE and the resurvey using SEOTE may inform Excelsior College's leadership and the college community at large of potential opportunities in course design. The data comparison may also serve to guide instructional faculty in continuing education efforts leading to productive and meaningful student learning experiences (Bangert, 2006).

Although this quantitative study was limited to senior year Excelsior College students, study outcomes may not be applicable to the entire nontraditional online degree seeking student population. However, any opportunity to improve student success at Excelsior College is a plus. In keeping with its mission and philosophy, Excelsior College should consider any opportunity to improve the quality of education and the learning experience provided (Excelsior College, 2010c). It is support of these goals that led to the comparison of student responses to 2011 NSSE student-faculty interaction to the resurvey using student-faculty interaction survey items from SEOTE.

CHAPTER FOUR: FINDINGS

Restatement of the Purpose

The purpose of this quantitative study was to explore the quality benchmark of student-faculty interaction (SFI) of nontraditional baccalaureate level college students seeking degree completion through online programs offered at Excelsior College. In 2008, Excelsior College participated in the *National Survey for Student Engagement* (NSSE). The results for the SFI benchmark were lower than NSSE aggregate data as well as data collected from the "online educators group" (Bose & Daniels, 2008, p. i) who also participated in the 2008 study.

In 2011, Excelsior College again participated in NSSE. However, as pointed out by Bose and Daniels (2008) NSSE "may not be an accurate measure of the type of student engagement that takes place with alternate forms of learning" (p. ii) such as student-faculty interaction in the online learning environment. Therefore, all Excelsior College students eligible for 2011 NSSE were resurveyed using student-faculty interaction items from Bangert's (2005, 2006) *Student Evaluation of Online Teaching Effectiveness* (SEOTE) tool, written specifically for the online learning environment. As noted in Chapter Three, NSSE and SEOTE tools had been validated for rigor and reliability.

Research Question

The research question to be answered was as follows: Does Excelsior College's benchmark score for student-faculty interaction differ from their National Survey of Student Engagement score if survey items are presented in a context consistent with the online learning environment of nontraditional college students?

Descriptive Statistics

Response Rates

Web-based surveys were sent to 3,306 qualifying Excelsior College senior students resulting in a response rate of 22% (n = 726) for NSSE and 6.6% (n = 217) for SEOTE. The decrease in survey respondents was expected given the NSSE (2011) criteria for senior students as "probable graduates for Spring or Summer 2011" (p. 3) and differing distribution times. NSSE was distributed in February, while this resurvey was conducted in August. In addition, 2,675 (81%) of eligible study participants were awarded baccalaureate degrees in the spring (Excelsior College, 2011) predisposing a lack of motivation to respond.

Respondent Characteristics

There was little difference in respondent characteristics (see Table 2) between the two survey samples. Respondents ranged from under 24 years to over 60 years in age; with the majority falling into the 40-49 age range: NSSE 45.2% (n = 298); SEOTE 44.2% (n = 95). The next largest age groups were 30-39 year olds and those between the ages of 50-59 comprising approximately 43% of respondents for both NSSE (n = 284) and SEOTE (n = 94). Less than 1% of respondents for either survey were under 24 years old. There were 70% (n = 465) male respondents for NSSE and 67% (n = 143) for SEOTE; 30% (n = 198) of NSSE respondents were female compared to 33% (n = 70) for SEOTE.

Table 2
Respondent Characteristics

		SEOTE Respondents*		NSSE Respondents*	
Variable	Parameter	n	%	n	%
Age Group	< 24	2	0.93	5	0.76
	24-29	16	7.44	60	9.09
	30-39	57	26.51	200	30.30
	40-49	95	44.19	298	45.15
	50-59	37	17.21	84	12.73
	60+	8	3.72	13	1.97
	Total	215	100	660	100
Gender	Male	143	67	465	70
	Female	70	33	198	30
	Total	213	100	660	100

* Number of respondents represents those who answered the specific survey item.

Survey Instruments and the Seven Principles

Each of the two survey tools measure student-faculty interaction in different ways. NSSE measured frequency of occurrence for each survey item, while SEOTE measured satisfaction for each item. Although both tools are based on Chickering and Gamson's (1987) *Seven Principles of Good Practice in Undergraduate Education*, the number of survey items on each tool differs as presented in Chapter One, Table 1. NSSE employs six survey items to measure student-faculty interaction while the SEOTE benchmark for SFI uses ten. Although there are similarities among survey items, there are no one-to-one exact matches between items. However, as depicted in Table 3, each item of the respective tools can be categorized into one of Chickering and Gamson's (1987) seven principles.

Table 3

Categories of Survey Items: Matching to Seven Principles

Principle	NSSE	SEOTE
Encourages Contact Between Students and Faculty	• Discussed grades or assignments with instructor. • Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc). • Worked on a research project with a faculty member outside the course or program requirements.	• The amount of contact with instructors was satisfactory (e.g., email, discussions, office hours). • Instructors were accessible to me outside of online courses.
Develops Reciprocity and Cooperation Among Students	• None	• I felt comfortable interacting with instructors and other students.
Encourages Active Learning	• None	• None
Gives Prompt Feedback	• Received prompt written or oral feedback from faculty on your academic performance. • Talked about career plans with a faculty member or advisor.	• My questions about course assignments were responded to promptly. • I was provided with supportive feedback related to course assignments. • Instructors communicated effectively. • My questions about Blackboard were responded to promptly.
Emphasizes Time on Task	• None	• None
Communicates High Expectations	• None	• Courses used examples that clearly communicated expectations for completing course assignments.

(continued)

Table 3

Categories of Survey Items: Matching to Seven Principles (continued)

Respects Diverse Talents and Ways of Learning	• None	• Instructors were respectful of student's ideas and views.

Examples of strategies employed to meet each principle in either the face-to-face (F2F) setting or through technology were described by Chickering and Ehrmann (1996) as follows:

1. To encourage contact between students and faculty there should be opportunities for interaction both inside and outside the classroom. F2F settings may provide for student seminars, office hours, and opportunities for students and faculty to work on collaborative projects. Similar interaction can be encouraged through technology via asynchronous communication tools such as email, threaded discussions, and web conferencing (Chickering & Ehrmann, 1996). NSSE uses three items fitting into this category while SEOTE includes two. NSSE asks: (a) *Discussed grades or assignments with instructor*, (b) *Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc),* and (c) *Worked on a research project with a faculty member outside the course or program requirements.* The two SEOTE survey items in this category are: (a) *The amount of contact with instructors was satisfactory* and (b) *instructors were assessable to me outside of online courses.*
2. Developing reciprocity and cooperation among students speaks to collaboration, social engagement, and two-way conversations among students and between students and faculty. Sharing ideas and responding to one another leads to deeper

understanding as evidenced by rich F2F classroom dialogue (Chickering & Ehrmann, 1996). The online learning environment also provides avenues for dialogue via email which "opens up communication among classmates even when they are not physically together," (Chickering & Ehrmann, 1996, p. 3) along with learning groups and online synchronous chats. Unfortunately none of the six NSSE survey items fall into this category. However, the SEOTE item asks; *I felt comfortable interacting with instructors and other students.*

3. Encouraging active learning includes pedagogical techniques such as writing, reflection, relating learning to past experiences, and applying what is learned to real life situations (Chickering & Ehrmann, 1996). This principle is not linked to SFI. Therefore, neither tool addresses this principle for the benchmark of SFI.
4. Providing prompt feedback assists students to identify areas where they are strong and weak which in turn, helps them to identify and focus their study time on the latter enhancing knowledge and competence. In the F2F environment students may utilize both faculty and advisors for counseling. Detailed feedback is accomplished in the virtual environment through grade book entries with faculty comments, tracked comments provided within a returned paper, and through either synchronous or asynchronous video conferencing. For this principle NSSE includes two items: (a) *Received prompt written or oral feedback from faculty on your academic performance* and (b) *Talked about career plans with a faculty member or advisor.* In contrast, SEOTE includes four items: (a) *My questions about course assignments were responded to promptly*, (b) I *was provided with*

supportive feedback related to course assignments, (c) *Instructors communicated effectively*, and (d) *My questions about Blackboard were responded to promptly.*

5. The principle of time on task relates to time spent on studying and related learning activities. This principle does not relate to SFI, and was not included in either tool.
6. Communicating high expectations encourages students to work hard and invest the time necessary for success. NSSE does not include this principle; SEOTE does with the survey item: *Courses used examples that clearly communicated expectations for completing course assignments.*
7. Chickering and Gamson's (1987) final principle ties in respecting diverse talents and ways of learning. NSSE does not include this principle in the category of SFI, however SEOTE addresses this through the survey item asking whether *instructors were respectful of student's ideas and views.*

NSSE Survey

The NSSE instrument utilized a 1-4 Likert Scale of frequency (Never, Sometimes, Often, Very Often) for five of the six survey items related to SFI. The sixth survey item asking participants if they ever *worked on a research project with a faculty member outside of course or program requirements* used four different Likert Scale parameters: Have not decided, Do not plan to do, Plan to do, and Done. Tables 4 and 5 provide statistics for each survey question.

Table 4

NSSE Frequency of Responses by Question

Item		Never	Some-times	Often	Very Often
Discussed grades or assignments with an instructor.	Frequency	48	265	224	177
	Percent	6.6	36.5	30.9	24.4
Talked about career plans with a faculty member or advisor.	Frequency	254	270	112	79
	Percent	35	37.2	15.4	10.9
Discussed ideas from your reading or classes with faculty members outside of class.	Frequency	443	167	55	48
	Percent	61	23	7.6	6.6
Received prompt written or oral feedback from faculty on your academic performance.	Frequency	17	133	292	266
	Percent	2.3	18.3	40.2	36.6
Worked with faculty members on activities other than coursework (committees, orientation, student life, activities, etc).	Frequency	558	71	31	14
	Percent	81	9.8	4.3	1.9
		Have not decided	Do not plan to do	Plan to do	Done
Worked on a research project with a faculty member outside the course or program requirements	Frequency	176	413	58	40
	Percent	24.2	56.9	8	5.5

Table 5

NSSE Statistics by Question

NSSE	Total Responses	Mean	Standard Deviation
Discussed grades or assignments with instructor.	714	2.74	0.907
Talked about career plans with a faculty member or advisor.	715	2.02	0.977
Discussed ideas from your readings or classes with faculty members outside of class.	713	1.59	0.895
Received prompt written or oral feedback from faculty on your academic performance.	708	3.14	0.801
Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc).	704	1.25	0.628
Worked on a research project with a faculty member outside the course or program requirements.	687	1.94	0.756

Over half, 55.3% (n = 401) of students indicated they discussed grades or assignments with an instructor often or very often (see Appendix B), while 43% (n = 313) of students sometimes or never communicated with an instructor about grades. The overall mean for this survey item was 2.74, s = 0.91, indicating moderate frequency of students discussing grades or assignments with an instructor. The least frequent form of student-faculty interaction was *working with faculty members on activities other than coursework* (M = 1.25; s = 0.63), with the next lowest being the outside of the classroom activity of *discussing ideas from readings or classes with faculty members outside of class* (M = 1.59, s = 0.90).

Working on a research project with a faculty member outside the course or program requirements and *talking about career plans with a faculty member or advisor* had the closest means of 1.94 (s = 0.76) and 2.02 (s = 0.98) respectively. However, *working on a research project with a faculty member outside the course or program* used different parameters in the Likert scale. For this measure 81.1% (n = 589) of students have not decided or do not plan to engage in this type of interaction; while 72.2% (n = 524) of respondents sometimes or never *talked about career plans with a faculty member or advisor*. The survey item with the highest frequency of student-faculty interaction (M = 3.14, s = 0.80) was *receiving prompt written or oral feedback from faculty on your academic performance.* Here 76.8% (n = 558) of student respondents received prompt feedback from instructors often or very often.

SEOTE Survey

The re-survey using SEOTE student-faculty interaction items utilized a 1-5 Likert Scale to measure students' satisfaction with instructor interaction (strongly disagree, disagree, mildly disagree, agree, strongly agree). Means across survey items ranged from a low of 3.76 (s = 1.06) to a high of 4.47 (s = 0.76) indicating that overall, students are satisfied with student-faculty interaction. This tool also included one open-ended question allowing respondents to *make specific comments that [they] might have to explain in more detail [their] perceptions related to the [survey]questions.* Of the 217 respondents completing the survey 36.4% (n = 79) took advantage of the opportunity to make additional comments. Tables 6 and 7 provide the statistics for each survey item.

Table 6

SEOTE Frequency of Responses by Question

Item		Strongly Disagree	Disagree	Mildly Disagree	Agree	Strongly Agree
My questions about course assignments were responded to promptly.	Frequency Percent	5 2.3	4 1.9	17 7.9	107 7.9	83 38.4
The amount of contact with instructors was satisfactory (e.g., email, discussions, office hours).	Frequency Percent	5 2.3	8 3.7	18 8.3	110 50.9	75 34.7
I was provided with supportive feedback related to course assignments.	Frequency Percent	4 1.9	11 5.1	18 8.3	102 47.2	81 37.5
Instructors were accessible to me outside of online courses.	Frequency Percent	9 4.2	20 9.3	38 17.7	94 42.7	54 25.1
Instructors communicated effectively.	Frequency Percent	6 2.8	5 2.3	18 8.37	102 47.4	84 39.1
Instructors were respectful of student's ideas and views.	Frequency Percent	4 1.9	2 0.9	5 2.3	81 37.7	123 57.2
I felt comfortable interacting with instructors and other students.	Frequency Percent	6 2.8	1 0.5	7 3.3	91 42.3	110 51.1
Instructors were enthusiastic about online learning.	Frequency Percent	6 2.8	6 2.8	17 7.8	96 44.4	91 42.1
My questions about Blackboard were responded to promptly.	Frequency Percent	5 2.4	3 1.4	22 10.5	110 52.6	69 33.0
Courses used examples that clearly communicated expectations for completing course assignments.	Frequency Percent	5 2.3	10 4.6	19 8.8	105 48.8	76 35.4

Table 7

SEOTE Statistics by Question

Survey Item	Total Responses	Mean	Standard Deviation
My questions about course assignments were responded to promptly.	216	4.20	0.84
The amount of contact with instructors was satisfactory (e.g., email, discussions, office hours).	216	4.12	0.88
I was provided with supportive feedback related to course assignments.	216	4.13	0.90
Instructors were accessible to me outside of online courses.	215	3.76	1.06
Instructors communicated effectively.	215	4.18	0.89
Instructors were respectful of student's ideas and views.	215	4.47	0.76
I felt comfortable interacting with instructors and other students.	215	4.39	0.82
Instructors were enthusiastic about online learning.	216	4.20	0.91
My questions about Blackboard were responded to promptly.	209	4.12	0.83
Courses used examples that clearly communicated expectations for completing course assignments.	215	4.10	0.91

Although there was no supporting narrative, 94.9% (n = 204) of participants agreed or strongly agreed *that instructors were respectful of student's ideas and views* (M = 4.47, s = 0.76) while 2.8% (n = 6) strongly disagreed or disagreed with this statement; 2.3% (n = 5) mildly disagreed. These statistics indicate a high level of satisfaction with the respect shown by instructors for student ideas and views. The item reflecting the least satisfaction with SFI was the question asking *if instructors were accessible to [the*

student] outside of online courses (M = 3.76, s = 1.06). 67.8% (n = 148) agreed or strongly agreed; while 17.7% (n = 38) mildly disagreed and 13.5% (n = 29) disagreed or strongly disagreed. One participant commented, "I did not try to contact the instructor outside of the online courses. A second participant indicated, "I did not have any occasion to contact instructors outside of the online course," and a third stated, "During every course I had, the instructor also provided alternate means of contact and I used it - and had positive results."

Feeling comfortable interacting with instructors and other students (M = 4.39, s = 0.82) also received a high rate of satisfaction with 93.5% (n = 201) of respondents agreeing or strongly agreeing, while 3.3% (n = 7) mildly disagreed, disagreed, or strongly disagreed. Participant's supported these results through open-ended responses such as: ". . . the interaction and atmosphere on the class forums were wonderful. Not only did the instructor offer helpful information, but he encouraged the students to do so among each other; and "The Excelsior instructors really like to help and mentor their students and never once did I get the impression of intruding upon their time." One of the 3.8% (n = 7) of respondents in the strongly disagree group stated, "I think my instructors, being adjunct, view the job as just a part-time supplement to their incomes and they seem determined to do as little as possible."

Also rated as having a high degree of satisfaction were survey items asking if *the amount of contact with instructors was satisfactory* (M = 4.12, s = 0.88); *questions about Blackboard were responded to promptly* (M = 4.12, s = 0.83); *I was provided with supportive feedback related to course assignments* (M = 4.13, s = 0.90); and *courses used examples that clearly communicated expectations for completing course assignments* (M

= 4.10, s = 0.91). Supporting statements included: "I was extremely pleased with the prompt service I received on a continuing basis; many [instructors] provided detailed feedback on assignments; I never received such one-on-one support when I took college courses, and the information on how we were going to be graded was clearly communicated." Collectively, 36% (n = 77) of participants mildly disagreed; 14.3% (n = 32) disagreed and 8.9% (n = 19) strongly disagreed with these four survey items. Related comments included: "I was not impressed with most of my instructors (sic) participation, timeliness in responding to questions, and/or feedback on assignments; instructors were indifferent to student questions; there were lengthy periods of time before the instructor responded to emails; and objectives for the class did not appear to be clearly linked to the evaluations for classes."

One student reflected, "It is easier to interact with instructors on line versus brick and mortar classes. Personally, I've always hated asking or trying to get your question in during the time frame within the brick and mortar class room (sic) as many students have questions; by using e- mail I get questions answered in a timely manner." This statement speaks to the survey item *my questions about course assignments were responded to promptly* (M =4.20, s = 0.84) with 88% (n = 190) of participants agreeing or strongly agreeing with this survey item. Another student commented, "Many [instructors] provided detailed feedback on assignments." However, 4.2% (n = 9) of participants disagreed or strongly disagreed with promptness of instructors' responses to questions about course assignments and supported their responses through statements such as: "In my opinion for the majority of online courses I have taken the response time from instructors were oftentimes slow," and "When I have to wait almost a week for an answer

to a question about an assignment that's due in a week, I can't call that a "prompt" answer." 7.9% (n = 17) were in mild disagreement with this item.

Instructors communicated effectively (M = 4.18, s = 0.89) was agreed to or strongly agreed to by 86.51% (n = 186) of participants. Participants also mildly disagreed (8.4%, n = 18), disagreed (2.3%, n = 50), and strongly disagreed (2.8, n = 6) to this statement. Participants commented, "Instructor communication and access were excellent; I have rarely encountered poor online communications with any professor that have provided instruction at Excelsior; and "Putting a check mark in a box on a grading rubric does not constitute feedback."

Lastly, 86.6% (n = 187) of participants agreed or strongly agreed that *instructors were enthusiastic about online learning* (M = 4.20, s = 0.91). 7.9% (n = 17) mildly disagreed; and 5.6% (n = 12) either disagreed or strongly disagreed. Participant comments supporting this data include, "The last instructor I had was very enthusiastic about the course and about our learning the material;"The majority [of instructors] either interacted little in discussion threads, if at all."

Summary

One way to determine the value and success of adult online learning is through research. It is paramount for institutions of higher education offering online degrees to be cognizant of recognized quality benchmarks, identify opportunities for improvement, and take necessary actions leading to successful student outcomes (Kuh, Kinzie, Cruce, Shoup, & Gonyea, 2007). Although the rate of response to this survey (6.6%, n = 217) is lower than the response to NSSE (22%, n = 726) for the same sample population (n = 3,306) the characteristics of respondents are consistent between the two, as are the

principles grounding them. A higher number of males responded to the surveys than did females, with the majority of participants for both surveys ranging in age from 30-49 years. Both surveys measure the benchmark of student-faculty interaction, however differing scales of measurement were employed.

NSSE used a measure of frequency, while SEOTE used satisfaction measures. NSSE incorporated a 1-4 Likert scale, SEOTE a 1-5 scale. Both tools are grounded on Chickering and Gamson's (1987) *Seven Principles of Good Practice in Undergraduate Education*. Survey items were categorized (see Appendix A) by the specific principle they related to. SEOTE included one open-ended question allowing participants to *make specific comments that [they] might have to explain in more detail [their] perceptions related to the [survey]questions;* NSSE did not. Of the SEOTE survey participants 36.4% (n = 79) took advantage of the opportunity to make additional comments. When coding narrative comments four themes emerged: (a) positive experiences with student-faculty interaction, (b) negative experiences with student-faculty interaction, (c) those expressing both positive and negative experiences with student-faculty interaction, and (d) comments unrelated to experiences with student-faculty interaction such as "I graduated this year, not currently a student;" and "I would like to see a serious plan by Excelsior College to reach out to the Latino Community."

It is evident that using different scales of measurement produced different results. The means ranged from a low of 1.25 (s = 0.63) to a high of 3.14 (s = 0.80) for NSSE with responses to all but one item indicating a low frequency rate. The re-survey resulted in high satisfaction for all items with the mean never falling below 4.10 (s = 0.91). The key component of this study and related suggestions and recommendations hinge on the

categories each survey item represents in regard to the seven principles; discussion of which follows in Chapter Five.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this quantitative study was to explore the quality benchmark of student-faculty interaction (SFI) of nontraditional baccalaureate level college students seeking degree completion through online programs offered at Excelsior College. Data was collected via an electronically delivered student survey utilizing the ten survey items from Bangert's (2006) *Student Evaluation of Online Teaching Effectiveness* tool which focused on student-faculty interaction. The data from this survey was compared to Excelsior College's 2011 *National Survey of Student Engagement* (NSSE) data to determine if overall scores for student-faculty interaction would be significantly different.

Although NSSE has been in use for over 10 years (NSSE, 2010b) it is written for students' experience in the traditional, face-to-face setting. There is concern that student engagement in student-faculty interaction in the online learning environment may not be measured accurately by NSSE (Bose & Daniels, 2008). With this existing doubt regarding the generalizability and applicability of NSSE to the online learner, it was important for Excelsior College to determine if using NSSE SFI findings as a basis for strategic planning and quality improvement efforts is well founded.

The decision to use an electronic survey format for self-reported data collection was made based upon the ability of this format to ensure anonymity of participants and to streamline the analysis process. This method also stayed true to the survey format used by NSSE and is one that Excelsior College students have grown accustomed to. In addition, this delivery method provides for ease of access to the sample population, is

inexpensive, and allows for a quicker response time than the traditional paper survey method (Thorpe, 2002).

Conclusions

Answers to survey questions are directly correlated to how they are asked (Felcher & Calder, 1990). Although both NSSE and SEOTE are grounded in Chickering and Gamson's (1987) *Seven Principles of Good Practice in Undergraduate Education* and focus on student-faculty interaction, the type of data obtained was significantly different. NSSE measured frequency of student-faculty interactions while SEOTE used satisfaction with SFI, thereby providing two views of student perspectives for the same benchmark.

There are few studies addressing the value of one type of measurement over another. Felcher and Calder (1990) reported that frequency was over-reported when participants were given more time to answer a question, and it was under-reported when less time was allowed. However, when giving contextual clues within survey questions, participant answers were found to be more accurate (Felcher & Calder, 1990). NSSE is an untimed survey, with contextual clues embedded in the scale for responses: Never, Sometimes, Often, and Very Often. However, there is no definitive research that indicates how or if any of these variables truly influence participant responses (Blair & Burton, 1987).

When drawing conclusions from satisfaction data, Elliott and Shin (2002) stressed the importance of using multiple attributes to determine overall student satisfaction. SEOTE takes into account ten attributes of student-faculty interaction. This allows for identification of individual attributes that may show consistency with satisfaction or

dissatisfaction across the sample. This type of data allowed for focused analysis which may lead to identification of improvement opportunities. However, as with frequency data, embedded contextual clues may lead to more accurate responses.

Overall, this study showed that students feel the frequency of their interactions with faculty is not where they would like it to be, but they are satisfied with the actual interaction that does occur. When analyzing individual survey items with common themes several stood out. Receiving prompt feedback from faculty received the highest frequency rate. Students were also highly satisfied with prompt, supportive, and effective responses from faculty. On the other end of the spectrum, students were dissatisfied with the lack of faculty contact outside the classroom. However, exactly what "outside of the classroom" means in the online environment is unclear.

All student-faculty interaction occurs online through Excelsior College's learning management system. There is little opportunity (frequency) for outside of the classroom contact between students and faculty. NSSE had three survey items addressing outside the classroom activity, each scoring well under the mid-range. This had a significant negative impact on Excelsior College's overall NSSE score of SFI. Satisfaction with interaction within the learning management system through email, discussions, and office hours was rated the third lowest on the resurvey using Bangert's (2005) SFI survey items. Here again, Excelsior College students were more satisfied than not despite NSEE'S data showing low frequency of occurrence. The most impressive of Excelsior College's scores was in the Chickering and Gamson (1987) area of respect for diverse talents and ways of learning. Student responses to this attribute rose above all others in regard to satisfaction. This is of special interest given the constructionist approach to teaching and learning

adopted by Excelsior College. Respect for diverse talents and ways of learning was not addressed by NSSE.

Major Question Related to Purpose

The research question to be answered was as follows: Does Excelsior College's benchmark score for student-faculty interaction differ from their National Survey of Student Engagement score if survey items are presented in a context consistent with the online learning environment of nontraditional college students? When comparing frequency to satisfaction, the answer to this is yes as indicated by the overall mean scores for satisfaction being well above the midpoint; and the overall mean scores for frequency being well below it. What is not known from this study is how significant findings would be if survey tools used the same parameters of either satisfaction or frequency, and answers were captured using the same Likert-type response choices.

Implications for Practice

Student-faculty interaction plays an integral role in achievement of successful student outcomes. Rather than employing strictly didactic methods of teaching, online faculty are expected to guide non-traditional adult learners as they engage in solving problems that are relevant to real life situations (Rosen & Salomon, 2007). Faculty must not only be dedicated**,** they must also be passionate, caring, and respectful of students as individuals, recognizing their diverse talents and responding to their need for high quality and frequent interaction.

This study brings to the forefront the old adage of quality versus quantity. In the online learning environment students must not only be satisfied with the quality of their interactions with faculty, they must also have frequent interaction with them. As self-

directed learners, the non-traditional adult online college student relies upon the faculty to provide "helpful and timely guidance [as a means of assisting them] to become more active and self directed" (Chu, & Tsai, 2009, pp. 490, 492). The cornerstone of online learning is its student focus, with learner demands met expeditiously (Bangert, 2005; Kim & Bonk, 2006). The implication for practice is to ensure faculty are appropriately trained in the use of the learning management system and are ready to meet the demands of the nontraditional adult learner.

Colleges and universities offering online education must ensure the minimum requirements for online faculty expectations are clearly stated and adhered to. Online institutions of higher education must encourage faculty to exceed the minimum and strive for the maximum when it comes to interacting with their students. This will require regular and ongoing oversight of faculty behavior, which is not the norm in the face-to-face classroom. Instituting such oversight will be a challenge, but necessary as the demands and needs of the nontraditional learner takes center stage.

A role of the online educator is facilitating and guiding learning. To accomplish this end, faculty is expected to interact in ways they may not be accustomed to. Some traditional college educators may not be successful in transitioning to this new role or be accepting of the paradigm shift. Those faculty who are ready to embrace the ever-evolving world of online best practices and androgogy, will excel as will their students.

Implications for Research

The study data indicate the need for further research utilizing a tool specifically designed to accurately measure student-faculty interaction in the online learning environment. Conducting NSSE and SEOTE studies for student-faculty interaction

simultaneously might lead to more congruent findings. However, replication of this study would be of no substantive value due to the variances between the NSSE and SEOTE tools for the benchmark of student-faculty interaction. Future research aimed at student-faculty interaction would be best served by addressing both frequency and satisfaction of SFI from student and faculty perspectives. Meeting the needs of both students and faculty may lead to increased student persistence, successful student outcomes, and improvement in the retention and recruitment of quality online educators. Once identified, improvement opportunities should be prioritized and addressed, not sidelined.

Recommendations

It may be advantageous to design a new survey tool focusing on student-faculty interaction for the nontraditional, undergraduate college student. The tool should be rooted in Chickering and Gamson's (1987) *Seven Principles of Good Practice in Undergraduate Education;* use one type of response scale; incorporate language and criteria consistent with the online learning environment; and allow for open-ended, qualitative responses. More accurate and reliable measurement may lead to more accurate and reliable data, which in turn may lead to substantive improvements to online andragogy, teaching and learning modalities, and advances in online teaching-learning technology. Most importantly, further research may result in actions which strengthen the bond between student and faculty by cementing their relationship through meaningful, caring, necessary, satisfactory, and frequent student-faculty interaction.

Chapter Summary

With the population of the country aging, changing demographics, and an increasing nontraditional college student population there is a demand for more online

educational opportunities. These adult learners are not only self-directed, but hungry for information and knowledge that can be transformed to meet the needs of their real world challenges. Faculty must be at the ready to meet these needs while incorporating and adjusting to the explosion of technological advances affecting the delivery of teaching and learning in the virtual environment. Recognizing the integral role that student-faculty interaction plays leads to also recognizing the need for research into this relationship. Knowing what makes this relationship strong and viable translates into satisfied students, increased student retention, and successful outcomes for all.

REFERENCES

Allen, I. E., & Seaman, J. (2010). *Class differences: Online education in the United States, 2010*. Retrieved from http://sloanconsortium.org/sites/default/files/class_differences.pdf

Ally, M. (2008). Foundations of educational theory for online learning. In T. Anderson (Ed.) *The theory and practice of online learning* (2nd ed., pp. 15- 44). Retrieved from http://search.creativecommons.org/?q=the+theory+and+practice+of+online+learning

Anderson, T. (Ed.). (2008). *The theory and practice of online learning* (2nd ed.). Retrieved from http://search.creativecommons.org/?q=the+theory+and+practice+of+online+learning

Bangert, A. W. (2004). The seven principles of good practice: A framework for evaluating on-line teaching. *The Internet and Higher Education, 7*(3), 217-232. doi:10.1016/j.iheduc.2004.06.003

Bangert, A. W. (2005). Identifying factors underlying the quality of online teaching effectiveness: An exploratory study. *Journal of Computing in Higher Education, 17(*2), 79-99. Retrieved from http://www.springerlink.com/content/r403qm8738378053/fulltext.pdf

Bangert, A. W. (2006). The development of an instrument for assessing online teaching effectiveness. *Journal of Computing in Higher Education, 35*(2), 227-244. doi: 10.2190/B3XP-5K61-7Q07-U443

Bangert, A. W. (2008) The development and validation of the student evaluation of online teaching effectiveness. *Computers in the Schools, 25*(1), 25-47. doi: 10.1080/07380560802157717

Barone, C. A. (2003). Technology and the changing teaching and learning landscape. *AAHE Bulletin, 55*(9). Retrieved from http://www.aahea.org/bulletins/articles/educause.htm

Bates, A. W. (2000). *Managing technological change: Strategies for college and university leaders*. San Francisco, CA: Jossey-Bass.

Blair, E., & Burton, S. (1987). Cognitive processes used by survey respondents to answer behavioral frequency questions. *Journal of Consumer Research, 14*(2), 280-288. Retrieved from http://www.jestor.org/stable/2489417

Bose, M., & Daniels, L. (2008). *Excelsior College national survey of student engagement 2008: Graduate student survey report.* Albany, NY: Excelsior College, Office of Assessment and Institutional Research.

Bruner, J. (1966). *Toward a theory of instruction*. Cambridge, MA: Harvard University Press.

Bryant, M. T. (2004). *The portable dissertation advisor*. Thousand Oaks, CA: Corwin Press.

Chen, P. D., Gonyea, R., & Kuh, G. (2008). Learning at a distance: Engaged or not? *Innovate, 4*(3), 1-8. Retrieved from http://www.innovateonline.info

Chickering, A. W., & Ehrmann, S. C. (1996). *Implementing the seven principles.* Retrieved from http://www.tltgroup.org/Programs/seven.html

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin, 39*(7), 3–7. Retrieved from http://www.aahea.org/bulletins/articles/sevenprinciples1987.htm

Chu, R. J. C., & Tsai, C. C. (2009). Self-directed learning readiness, Internet self-efficacy and preferences towards constructivist internet-based learning environments among higher-aged adults. *Journal of Computer Assisted Learning, 25*(5), 489-501. doi: 10.1111/j.1365-2729.2009.00324.x

CIEQ. (2009). *The Aleamoni course/Instructor evaluation questionnaire.* Retrieved from http://www.cieq.com/index.htm

Clark, D. N., & Gibb, J. L. (2006). Virtual team learning: An introductory study team exercise. *Journal of Management Education, 30*(6), 765-787. doi: 10.1177/1052562906287969

Clark, J. (2008). *Collaboration tools in online learning environments*. Retrieved from http://www.sloanconsortium.org/publications/magazine/v4n1/clark.asp

Clark, M. C., & Rossiter, M. (2008). Narrative learning in adulthood. *New Directions for Adult & Continuing Education, 119*, 61-70. doi: 10.1002/ace.306

Cole, M., John-Steiner, V., Scribner, S., & Souberman, E. [Eds.] (1978). L. *S. Vygotsky: Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press. Retrieved from http://generative.edb.utexas.edu/classes/knl2008sum2/eweekly/vygotsky1978.pdf

Cragg, C., Plotnikoff, R., Hugo, K., & Casey, A. (2001). Perspective transformation in RN-to-BSN distance education. *Journal of Nursing Education, 40*(7), 317-322. Retrieved from www.cinahl.com/cgi-bin/refsvc?jid=227&accno=2001113924

Cranton, P., & Caruseta, E. (2004). Perspectives in authenticity in teaching. *Adult Education Quarterly, 55*(1), 5-22. doi: 10.1177/0741713604268894

Cranton, P., & King, K. P. (2003). Transformative learning as a professional development goal. *New Directions for Adult and Continuing Education, 2003*(98), 1-92. doi: 10.1002/ace.97

Cross, K. P. (1999). What do we know about students' learning, and how do we know it? *Innovative Higher Education, 23*(4), 255-270. doi: 10.1023/A:1022930922969

Culatta, R. (2011). *Innovative learning.* Retrieved from http://www.innovativelearning.com

Dalgarno, B. (1996). *Constructivist computer assisted learning: Theory and techniques.* Retrieved from http://www.ascilite.org.au/conferences/adelaide96/papers/21.html

D'Orsie, S., & Day, K. (2006). Ten tips for teaching a web course. *Tech Directions, 65*(7), 18-20. Retrieved from http://www.techdirections.com

Duffy, T. M., & Cunningham, D. J. (2008). *Constructivism: Implications for the design and delivery of instruction.* Retrieved from http://iris.nyit.edu/~kkhoo/Spring2008/Topics/Cons/ConstructivismImplications.pdf

Elbeck, M., & Mandernach, B. (2009). Journals for computer-mediated learning: Publications of value for the online educator. *The International Review of Research in Open and Distance Learning, 10*(3), 1-20. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/676/1295

Elliott, K. M., & Shin, D. (2002). Student satisfaction: An alternative approach to assessing this important concept. *Journal of Higher Education Policy & Management, 24*(2), 197-209. doi:10.1080/1360080022000013518

Excelsior College. (2009). *Excelsior College strategic plan, 2010-2014* (Executive Report No. exec09-016). Albany, NY: Excelsior College, Office of the President.

Excelsior College. (2010a). *About Excelsior College.* Retrieved from https://www.excelsior.edu

Excelsior College. (2010b). *At-a-glance.* Albany, NY: Excelsior College, Office of Institutional Advancement.

Excelsior College. (2010c). *Institutional assessment plan for student learning.* Albany, NY: Excelsior College, Office of Outcomes Assessment and Institutional Research.

Excelsior College. (2011). *Commencement 2011: Class 2011 at a glance*. Retrieved from http://www.excelsior.edu/web/commencement/home

Felcher, E., & Calder, B. (1990). Cognitive models for behavioral frequency survey questions. *Advances in Consumer Research, 17*(1), 207-211. Retrieved from http://www.acrwebsite.org/volumes/display.asp?id=7022

Fleischer, B. J. (2006). Mezirow's theory of transformative learning and Lonergan's method in theology: Resources for adult theological education. *The Journal of Adult Theological Education,3*(2),146-162. doi:10.1558//jate2006.3.2147

Flowers, L., Pascarella, E. T., & Pierson, C. T. (2000). Information technology use and cognitive outcomes in the first year of college. *Journal of Higher Education, 71*(6), 637-667. Retrieved from http://www.jstor.org/stable/2649157?origin=JSTOR-pdf

Fowler, F. J. (1995). *Improving survey questions: Design and evaluation: Applied social research methods, 38*. Thousand Oaks, CA: Sage Publications, Inc.

Fredholm, L. (2001). Ivan Petrovich Pavlov (1849-1936). Retrieved from http://nobelprize.org/educational/medicine/pavlov/readmore.html

Giuseppe, I. (2006) *Power of survey design: A user's guide for managing surveys, interpreting results, and influencing respondents*. Washington, DC: The World Bank.

Graham, C., Cagilitay, K., Lim, B., Craner, J., & Duffy, T. M. (2001). *Seven principles of effective teaching: A practical lens for evaluating online courses.* Retrieved from http://technologysource.org/article/seven_principles_of_effective_teaching/

Grant, M. R., & Thornton, H. R. (2007). Best practices in undergraduate adult-centered online learning: Mechanisms for course design and delivery. *MERLOT Journal of Online Learning and Teaching, 3*(4). Retrieved from http://jolt.merlot.org/vol3no4/grant.htm

Hu, S., & Kuh, G. D. (2002). Being (dis)engaged in educationally purposeful activities: The influences of student and institutional characteristics. *Research in Higher Education, 43*(5), 555-575. Retrieved from http://vlib.excelsior.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=tfh&AN=7677341&site=ehost-live&scope=site

Kane, R. G. (2010). Teaching as counterinsurgency: Enhancing pedagogical effectiveness and student learning in a culture of distraction. *History Teacher, 43*(3), 375-396. Retrieved from http://www.thehistoryteacher.org/

Kanuka, H. (2008). Understanding e-learning technologies-in-practice through philosophies-in-practice. In T. Anderson,(Ed.). *The theory and practice of online learning* [2nd ed.] (pp. 91- 118). Retrieved from http://search.creativecommons.org/?q=the+theory+and+practice+of+online+learning

Katz, R. N. (2003). Balancing technology & tradition: The example of course management systems. *EDUCAUSE Review, 38*(4), 48-58. Retrieved from http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume38/BalancingTechnologyandTraditio/157843

Kim, K. J., & Bonk, C. J. (2006). The future of online teaching and learning in higher education: The survey says. *Educause Quarterly, 29*(4), 22-29. Retrieved from http://www.educause.edu/EDUCAUSE+Quarterly/EQVolume292006/EDUCAUSEQuarterlyMagazineVolum/157432

Kirtman, L. (2009). Online versus in-class courses: An examination of differences in learning outcomes. *Issues in Teacher Education*, *18*(2), 103-116. Retrieved from http://www.thefreelibrary.com/Online+versus+in-class+courses%3A+an+examination+of+differences+in...-a0210596585

Kitchenham, A. (2008). The evolution of John Mezirow's transformative learning theory. *Journal of Transformative Education, 6*(2), 104-123. doi: 10.1177/1541344608322678

Knowles, M. (1980). Malcolm Knowles on: Some thoughts about environment and learning – educational ecology, if you like. *Training & Development Journal, 34*(2), 34-36. Retrieved from http://vlib.excelsior.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=9069334&site=ehost-live&scope=site

Knowles, M. S., Holton III, E. F., & Swanson, R. A. (1998). *The adult learner: The definitive classic in adult education and human resource development* (5th ed.). Woburn, MA: Butterworth-Heinemann.

Kuh, G. D. (2001). Assessing what really matters to student learning: Inside the national survey of student engagement. *Change, 33*(3), 10-17, 66. Retrieved from http://cpr.iub.edu/uploads/Assessing_What_Really_Matters_To_Student_Learning_%28Kuh,%202001%29.pdf

Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *The Journal of Higher Education, 79*(5), 540-563. Retrieved from http://www.ohiostatepress.org

Kuh, G. D., Kinzie, J., Cruce, T., Shoup, R., & Gonyea, R. M. (2007). *Connecting the dots: Multi-faceted analyses of the relationships between student engagement results from NSSE, and the institutional practices and conditions that foster student success* [Revised]. Indiana University Bloomington: Center for Postsecondary Research. Retrieved from http://www.nsse.iub.edu/pdf/Connecting_the_Dots_Report.pdf

Laird, T. F., & Kuh, G. D. (2004). *Student experiences with information technology and their relationship to other aspects of student engagement*. Paper presented at the Annual Meeting of the Association for Institutional Research, Boston, MA. Retrieved from http://nsse.iub.edu/pdf/AIR2004EngagementWithITFinal.pdf

Larreamendy-Joerns, J., & Leinhardt, G. (2006). Going the distance with online education. *Review of Educational Research, 76*(4), 567-605. doi: 10.3102/003465443076004567

Levy, S., & Beaulieu, R. (2003). Online distance learning among the California community colleges: Looking at the planning and implementation. *American Journal of Distance Education, 17*(4), 207-220. doi: 10.1207/s15389286ajdel1704_2

McCormick, A. C., Pike, G. R., Kuh, G., & Chen, P.D. (2008). Comparing the utility of the 2000 and 2005 Carnegie classification systems in research on students' college experiences and outcomes. *Research in Higher Education, 50*(2), 144-167. doi:10.1007/s11162-008-9112-9

Meerts, J. (2003, October 20). Course management systems (CMS). A report presented to EDUCAUSE Evolving Technologies Committee, Washington, D.C. Retrieved from EDUCAUSE website: http://net.educause.edu/ir/library/pdf/DEC0302.pdf

Menchaca, M. P., & Bekele, T. A. (2008). Learner and instructor identified success factors in distance education. *Distance Education, 29*(3), 231-252. doi: 10.1080/01587910802395771

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.

Mezirow, J. (2000) Learning to think like an adult: Core concepts of transformation theory. In J. Mezirow and Associates (Eds.), *Learning as transformation* (pp. 3–34). San Francisco, CA: Jossey-Bass.

Mezirow, J. (2006). An overview of transformative learning. In P. Sutherland & J. Crowther (Eds.), *Lifelong learning: Concepts and contexts* (pp. 24-38). New York, NY: Routledge.

National Center for Education Statistics. (2002). *Special analysis 2002: Nontraditional undergraduates.* Retrieved from http://nces.ed.gov/programs/coe/2002/analyses/nontraditional/sa01.asp

National Survey of Student Engagement. (2008). *NSSE survey instrument.* Retrieved from http://nsse.iub.edu/html/survey_instruments_2008.cfm

National Survey of Student Engagement. (2009). *Assessment for improvement: Tracking student engagement over time: Annual results 2009*. Bloomington, IN: Indiana University Center for Postsecondary Research. Retrieved from http://nsse.iub.edu/pdf/Connecting_the_Dots_Report.pdf

National Survey of Student Engagement. (2010a). *About NSSE.* Retrieved from http://nsse.iub.edu/html/about.cfm

National Survey of Student Engagement. (2010b). *Major differences: Examining student engagement by field of study: Annual results 2010*. Bloomington, IN: Indiana University Center for Postsecondary Research. Retrieved from http://nsse.iub.edu/html/annual_results.cfm

National Survey of Student Engagement. (2010c). *NSSE timeline1998-2009.* Retrieved from http://nsse.iub.edu/html/PsychometricPortfolio_Validity.cfm

National Survey of Student Engagement. (2011). *NSSE population file instructions*. Retrieved from http://nsse.iub.edu/pdf/pop_file_instructions_2011_FINAL.pdf

Nugent, S. G. (2007). The ivory tower of Babel: Leadership. *EDUCAUSE Review, 42*(2), 6-7. Retrieved from http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume 42/ TheIvoryTowerofBabel/158122

Parsad, B., & Lewis, L. (2008). *Distance education at degree-granting postsecondary institutions: 2006–07* (NCES 2009–044). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. Retrieved from http://nces.ed.gov/pubs2009/2009044.pdf

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research* (Volume 2). San Francisco, CA: Jossey-Bass.

Pavlov, I. P. (1924). Lectures on the work of the cerebral hemisphere: Lecture one. In Philosophical Library, *Experimental psychology and other essays* 1957. Retrieved from http://evans-experientialism.freewebspace.com/pavlov.htm

Penn State. (2010). *Students' evaluation of educational quality*. University Park, PA: Schreyer Institute for Teaching Excellence. Retrieved from http://www.schreyerinstitute.psu.edu/Tools/SEEQ

Phipps, R., & Merisotis, J. (1999). *What's the difference? A review of contemporary research on the effectiveness of distance learning in higher education*. Washington, DC: American Federation of Teachers and National Education Association. Retrieved from http://www.ihep.org/assets/files/publications/s-z/WhatDifference.pdf

Polit, D.F., & Beck, C.T. (2010). *Essentials of nursing research: Appraising evidence for nursing practice* (7th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

Pond, W. K. (2002). Distributed education in the 21st Century: Implications for quality assurance. *Online Journal of Distance Learning Administrators, 5*(2). Retrieved from http://www.westga.edu/~distance/ojdla/summer52/pond52.pdf

Prince, M., & Felder, R. M. (2006). Inductive teaching and learning methods: Definitions, comparisons, and research bases. *Journal of Engineering Education, 95*(2), 123-138. Retrieved from http://www4.ncsu.edu/unity/lockers/users/f/felder/public/Papers/InductiveTeaching.pdf

Raosoft®. (2004). *Sample size calculator.* Retrieved from http://www.raosoft.com/samplesize.html

Robinson, C., & Hullinger, H. (2008). New benchmarks in higher education: Student engagement in online learning. *Journal of Education for Business, 84*(2), 101-109. doi:10.3200/JOEB.84.2.101-109

Rochester Institute of Technology. (2011). *R.I.T. Online learning: Adult learners.* Retrieved from http://online.rit.edu/faculty/teaching_strategies/adult_learners.cfm

Rosen, Y., & Salomon, G. (2007). The differential learning achievements of constructivist technology-intensive learning environments as compared with traditional ones: A meta-analysis. *Journal of Educational Computing Research, 36*(1), 1-14. Retrieved from http://baywood.metapress.com/link.asp?target=contribution&id=R8M47762282U554J

Ruey, S. (2010). A case study of constructivist instructional strategies for adult online learning. *British Journal of Educational Technology, 41*(5), 706-720. doi: 10.1111/j.1467-8535.2009.00965x

Salkind, N. J. (2008) *Statistics for people who (think they) hate statistics* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Schneider, M. (2009). Assessing NSSE. *Inside Higher Ed*. Retrieved from http://www.insidehighered.com/views/2009/11/24/schneider

Shelton, K. (2010). A quality scorecard for the administration of online education programs. *Journal of Asynchronous Learning Networks, 14*(4). Retrieved from http://sloanconsortium.org/effective_practices/quality-scorecard-administration-online-education-programs

Skinner, B. F. (1979). The non-punitive society. Commemorative lecture presented at Keio University, Japan. Retrieved from http://www.bfskinner.org/BFSkinner/Articles_files/non-punitive_society.pdf

Staklis, S. (2010, September 7). *Web tables - Profile of undergraduate students: 2007-08* (NCES 2010-205). Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010205

Steinberg, W. J. (2008). *Statistics alive!* Thousand Oaks, CA: Sage Publications, Inc.

Taylor, E. W. (2007). An update of transformative learning theory: A critical review of the empirical research (1999-2005). *International Journal of Lifelong Education, 26*(2), 173-191. doi: 10.1002/ace.301

Ternus, M. P., Palmer, K. L., & Faulk, D. R. (2007). Benchmarking quality in online teaching and learning: A rubric for course construction and evaluation. *The Journal of Effective Teaching, 7*(2), 51-67. Retrieved from http://uncw.edu/cte/et/articles/Vol7_2/Ternus.pdf

Thorpe, S. W. (2002, June). *Online student evaluation of instruction: An investigation of non-response bias*. Paper presented at the 42nd Annual Forum of the Association for Institutional Research, Toronto, Canada. Retrieved from airweb.org/forum02/550.pdf

United States Distance Learning Association. (2010). *Glossary of terms*. Retrieved from http://www.usdla.org/Glossary_Distance.pdf

von Glasersfeld, E. (2004). *Constructivism*. Retrieved from http://univie.ac.at/constructivism/EvG/

WCET Advance (2010). *Transparency by design*. Retrieved from http://www.wcet.wiche.edu/advance/transparency-by-design

Williams, B. (2004). Self direction in a problem based learning program. *Nurse Education Today, 24*(4), 277-285. Retrieved from http://www.sciencedirect.com.

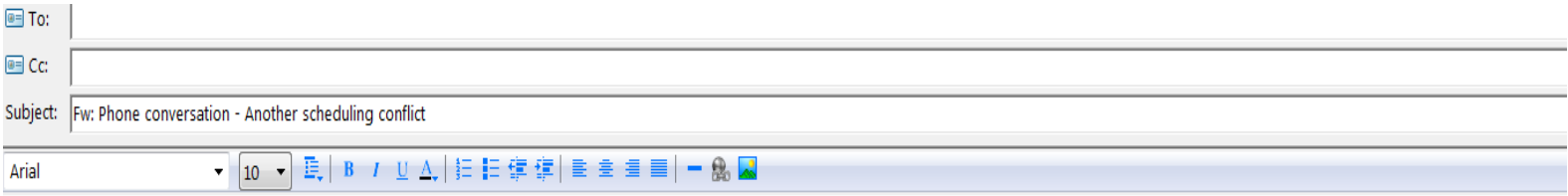
APPENDICES

APPENDIX A

Permission to Use Student Evaluation of Online Teaching Effectiveness Tool

APPENDIX A

Permission to Use Student Evaluation of Online Teaching Effectiveness Tool



"Bangert, Arthur" <abangert@montana.edu>

01/24/2011 12:36 PM

To "NSmulsky@excelsior.edu" <NSmulsky@excelsior.edu>
cc
Subject RE: Phone conversation - Another scheduling conflict

Hi Nancy,

It was good to visit with you today about your research interests and dissertation study. You have permission to use my instrument, the Student Evaluation of Online Teaching Effectiveness" for your study. Please keep me informed of the results of your study. I am always interested in findings related to the use of my instrument.

Please don't hesitate to email if you have questions.

Sincerely,

Art Bangert

Associate Professor
Department of Education
Montana State University
115 Reid Hall
Bozeman, MT 59717
406-994-7424

APPENDIX B

Student-Faculty Interaction Survey Tool

APPENDIX B

Student-Faculty Interaction Survey Tool

	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
1. My questions about course assignments were responded to promptly.	◯	◯	◯	◯	◯	◯
2. The amount of contact with instructors was satisfactory (e.g., email, discussions, office hours).	◯	◯	◯	◯	◯	◯
3. I was provided with supportive feedback related to course assignments.	◯	◯	◯	◯	◯	◯
4. Instructors were accessible to me outside of online courses.	◯	◯	◯	◯	◯	◯
5. Instructors communicated effectively.	◯	◯	◯	◯	◯	◯
6. Instructors were respectful of student's ideas and views.	◯	◯	◯	◯	◯	◯
7. I felt comfortable interacting with instructors and other	◯	◯	◯	◯	◯	◯

students.

8. Instructors were enthusiastic about online learning. ◯ ◯ ◯ ◯ ◯ ◯
9. My questions about BlackBoard were responded to promptly. ◯ ◯ ◯ ◯ ◯ ◯
10. Courses used examples that clearly communicated expectations for completing course assignments. ◯ ◯ ◯ ◯ ◯ ◯
11. Please include a little information about yourself.

Gender: Male ◯ Female ◯

Age: <24 ◯ 24-29 ◯ 30-39 ◯ 40-49 ◯ 50-59 ◯ 60+ ◯

Degree Program: Business ◯ Technology ◯ Health Sciences ◯ Liberal Arts ◯ Nursing ◯

Note: From The development of an instrument for assessing online teaching effectiveness by Arthur W. Bangert, 2006, *Journal of Computing in Higher Education, 35*(2), p. 238. Copyright 2006 by Baywood Publishing Company, Inc. Adopted with permission.

APPENDIX C

Participant Letter of Consent

APPENDIX C

Participant Letter of Consent

Dear Excelsior College Student,

You are cordially invited to participate in a research study. I am conducting this study as part of degree requirements for a Doctorate of Education at Argosy University. The purpose of this research study is to determine the degree of student-faculty interaction you experienced as an online student at Excelsior College. The findings of this study will be compared to findings of the 2011 National Survey of Student Engagement that you were asked to participate in earlier this year. Approximately 200 people have been asked to participate in this study.

If you participate in this survey you will be asked to identify yourself by the degree program you are enrolled in, and to provide basic demographic information. In addition, you will be asked to answer 10 questions by clicking on the corresponding radio button that represents your answer. There is also space for you to add any additional comments should you wish to add to any of the answers you provide. No personal identifying information will be requested. All participants will remain anonymous.

Your participation in this survey will take approximately 15 minutes.

Your participation in this research is strictly voluntary. You may refuse to participate at all, or choose to stop your participation at any point in the research, without fear of penalty or negative consequences of any kind.

The information/data you provide for this research will be treated confidentially, and all raw data will be kept in a secured file by the researcher. Results of the research

will be reported as aggregate summary data only, and no individually identifiable information will be presented.

You also have the right to review the results of the research if you wish to do so. A copy of the results may be obtained by contacting the researcher at the address or email below:

Nancy Calsolaro Smulsky; 36 Maria Drive, Loudonville, NY 12211-2401

Email: nancys@nycap.rr.com

There will be no direct or immediate personal benefits from your participation in this research. The results of the research may contribute to recommendations for future improvements to student-faculty interaction in Excelsior's online courses.

I have read and understand the information explaining the purpose of this research and my rights and responsibilities as a participant. By completing the linked survey I give consent to participate in this research study, according to the terms and conditions outlined above, including voluntariness and use of the data.

(The participant should retain a copy of this consent letter provided by the researcher.)

Click here to go to the survey

APPENDIX D

Permission to Copy 2011 NESSE Survey Instrument: U.S. Web Version

APPENDIX D

Permission to Copy 2011 NESSE Survey Instrument: U.S. Web Version

From: NSmulsky@excelsior.edu <NSmulsky@excelsior.edu>;
Date: Monday, March 07, 2011 2:29 PM
To: Nancy Smulsky <nancys@nycap.rr.com>;
Subject: Fw: Using PDF of NSSE 2011 U. S. Web Version

From: "Lambert, Amber Desiree" <adlamber@indiana.edu>
To: "NSmulsky@excelsior.edu" <NSmulsky@excelsior.edu>
Date: 03/07/2011 02:20 PM
Subject: RE: Using PDF of NSSE 2011 U. S. Web Version

Hello Nancy,

It was very nice speaking with you on the phone. Yes, you have authorization to use the NSSE survey as an appendix in your dissertation as long as it is cited properly as a copyrighted survey instrument.

Thank you for your support of NSSE and good luck with your research!

Amber Lambert

Amber D. Lambert, Ph.D.
Research Analyst
Center for Postsecondary Research
1900 E. 10th Street
Eigenmann Hall, Suite 419
Bloomington, IN 47406-7512
Phone: 812.856.1205
Fax: 812.856.5150
Email: adlamber@indiana.edu
Website: http://nsse.iub.edu

From: NSmulsky@excelsior.edu [mailto:NSmulsky@excelsior.edu]
Sent: Monday, March 07, 2011 2:03 PM
To: Lambert, Amber Desiree
Subject: Using PDF of NSSE 2011 U. S. Web Version

I understand that this is permissible as long as the document is properly cited. However, I appreciate you confirming this by responding to this email.

I appreciate your time and attention to this request.

Regards,

Nancy Calsolaro Smulsky

APPENDIX E

2011 NSSE Survey Instrument: U.S. Web Version

APPENDIX E

2011 NSSE Survey Instrument: U.S. Web Version

NSSE2011_US_English_Web.pdf

Note: From the National survey of student engagement: The college student report.

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