EXPLORING THE MOTIVATIONAL ORIENTATIONS OF GRADUATE

STUDENTS IN DISTANCE EDUCATION PROGRAMS

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL

IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE

DOCTOR OF EDUCATION

BY

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MUNCIE, IN

MAY 2011

ACKNOWLEDGEMENTS

I want to thank those who made the successful completion of this dissertation a reality. I would like to express sincere gratitude to my doctoral committee members who have offered invaluable encouragement and assistance. I want to thank Dr. Roy Weaver whose support enabled me to meet deadlines and complete the arduous last leg of this journey. I would like to express my appreciation to Dr. Sharon Paulson for her guidance in my statistical analysis and her generous efforts to ensure my success. I want to thank Dr. Michelle Glowacki-Dudka for inspiring confidence in me and for supporting me through the challenging times. I also want to thank Dr. Renee Twibell for helping me keep my nursing roots in mind and for her continued enthusiasm for my research topic.

It would have been impossible to write this dissertation without the aid of Dr. Joseph Armstrong. I want to thank him for the foundation and support he provided throughout my research experience. He always believed I could be successful at doctoral level work, and I chose to believe him.

I need to thank countless family members and friends for their support over the past five years. I owe my deepest gratitude to my parents, Vern and Rita Nolot, who have always believed in me and encouraged my continued pursuit of education. I also want to thank Terry Nolot, Linda Kelley, and Joy Quinn for reminding me that there was a world out there beyond the library and my computer. And finally, I want to thank my nieces and nephews, Aaron, Shelby, Madison, and Hannah Nolot, and Caleb and Corey Crump. They haven't always understood why Aunt Sandi chose to go back to school, but endeavoring to show them that anything is possible if you work at it hard enough has been a major inspiration for me to persevere through the tough times and reach my goal.

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ABSTRACT

DISSERTATION: Exploring the Motivational Orientations of Graduate Students in Distance Education Programs

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DEGREE: Doctorate of Education

COLLEGE: Teachers College

DATE: May 2011

PAGES: 119

This study examined the motivational orientations of 166 graduate students enrolled in distance education courses at a state university. Data were collected utilizing Boshier's Education Participation Scale A-Form and analyses were completed for overall results, by gender and age, by academic program and by preferred method of distance course delivery. Additional analyses were performed comparing responses from the distance education students and 42 traditional students. The results of the study showed that professional advancement was the overwhelming motivational orientation for participation in education by these graduate students. The second highest rated motivation was reported as cognitive interest, and the motivational orientations rated as least influential were social contact and social stimulation. There were no differences resulting from gender, but the age group 22-30 rated cognitive interest and social contact as more influential than students in the age 31-44 age group and professional advancement significantly higher than in the 45-59 age group. Also, participants in the age group 45-59 rated social stimulation significantly higher than students aged 31-44. Students from academic programs in education, nursing and business were the

principal respondents, and there were no significant differences found in their

motivational orientations. However, the education students scored the motivational

orientations, social contact and social stimulation, significantly lower than participants

from the group, other, which consisted of students from nine different fields of study.

Other findings revealed no differences in motivational orientations by students' expressed

preferred method of distance education delivery. Lastly, results showed that traditional

students rated social contact, communication improvement, and educational preparation

as more influential than distance education students. Findings from this study suggest

that graduate students in both distance and traditional graduate programs participate in

education primarily for professional and cognitive reasons. In addition, analyses revealed

that differences in the seven motivational orientations were impacted by age, academic

program, and student type.

Chapter 1

Introduction

Background

      While distance education today is predominantly associated with online courses, non-traditional delivery of instruction has been utilized for centuries. Methods of delivery through the years have included correspondence courses, radio broadcasts, televised classes, and multiple formats of courses offered via computer (Casey, 2008; Gooch, 1998; Jeffries, 2001). Distance learning as recognized today includes programs offered entirely online, courses presented at remote locations, classrooms viewed via satellite, or instruction offered through a combination of delivery methods. Wikeley and Muschamp (2004) defined distance education students as "those who follow the programme from their own location and do not attend the university, or do so only for minimal periods of time" (p. 127).

      Distance education provides access to college courses for students located in geographic locations without access to higher education institutions. These programs also appeal to individuals with full-time jobs and family responsibilities and to military personnel seeking professional and personal enrichment through certifications and degrees (Adams, 2006; Thompson, 1998). Adult learners attempting to balance their academic responsibilities with work and family must often complete their educational programs as part-time students (O'Lawrence, 2006). Distance learning has provided

flexibility and convenience to the arduous process of obtaining a college degree for those students who have responsibilities outside of the school environment. For these students distance education has been a key to successful completion of higher education degrees (Yukselturk & Bulut, 2009).

Today's quickly changing job market and economic turmoil have caused individuals to seek continuing education in order to remain employable. Individuals must enhance their knowledge and abilities to advance in their chosen career. The availability of well-paying jobs has decreased, causing an increasing number of people to seek advanced education so that they might embark on new professional paths or gain expertise in their field (Allen & Seaman, 2008; Dickerson, 2010; Gerson, Cultive, & Knapp, 2000).

According to Allen and Seaman (2008), enrollment in online university programs has grown at a faster rate than that of overall higher education. Internet programs showed a 12.9% growth in 2007 compared to a 1.2% increase for traditional on-campus courses. The survey reported that there were 3.94 million online students in the fall of 2007, with 14% of these individuals enrolled in graduate programs. "It cannot be denied that distance education is firmly established not only as an option for delivery of higher education but as a necessity" (Maushak & Ellis, 2003, p. 30).

Diaz (2000) proposed that to facilitate successful programs, distance education research must begin to take a student-centered approach, investigating what motivations and characteristics apply to the successful student. Demographic, professional, and personal factors may result in varying motivations and objectives in adults seeking higher

education. "Learners' motivations for participating in adult education are many, complex, and subject to change" (Merriam & Caffarella, 1999, p. 56).

Boshier (1971, 1991) created a model to illustrate the reasons that adults participate in education. His objectives in the development of the model were to facilitate the development of theory, gain an understanding of attrition, and enhance the learning experience for adult students. He proposed that adults possess motivational orientations that may have a homeostasis or heterostasis origin. Motivational orientations were defined as the reasons why an individual made the decision to participate in education. In this model homeostasis described an adult who was influenced to participate in education to regain equilibrium after experiencing a deficiency or instability in his or her life. Motivation with a heterostasis orientation was explained as an individual feeling the need from within for growth and development and choosing to participate in education to satisfy that internal need.

The Education Participation Scale (EPS) was developed as a tool to investigate the motivational orientations of adult students. The items on the original scale were derived from a study of 233 diverse adult education students in New Zealand. The study resulted in the creation of the EPS, which utilized 14 factors to describe the motivations for adult learners participating in educational programs. The factors were identified as: social welfare, social contact, other-directed professional advancement, intellectual recreation, inner-directed professional advancement, social conformity, education preparedness, cognitive interest, educational compensation, social sharing, television abhorrence, social improvement, interpersonal facilitation, and educational supplementation (Boshier, 1971).

In 1991 Boshier performed a follow-up study to evaluate the psychometric properties of the EPS. Utilizing inter-correlational analysis, Boshier (1991) developed an alternative form of the EPS scale and recommended that the original form be retired. The alternate form of the EPS (EPS-A) identified seven motivational orientations and was the instrument utilized in this study to survey distance education graduate students (Boshier, 1991; Garst & Ried, 1999).

The seven motivational orientations measured by the EPS-A are: (1) communication improvement: seeking education to improve verbal and written skills, learn a new language, or enhance communication between cultures; (2) social contact: participation in education because the student enjoys learning with others and wants to be part of a group; (3) educational preparation: participation in education to remediate deficiencies in learning or in preparation for a more specialized type of learning; (4) professional advancement: participation in education to strengthen the student's status at their current job or to position themselves to advance professionally; (5) family togetherness: participation in education to seek common ground in relationships, to share an activity, or to bridge a generation gap; (6) social stimulation: participation in education to escape from routine, alleviate boredom, or provide a diversion from social problems; and (7) cognitive interest: participation in education for the sake of learning (Boshier, 1991; Garst & Ried, 1999; Morstain & Smart, 1974; Tassone & Heck, 1997).

Problem Statement

Academic institutions offering distance education should endeavor to understand student motivation in order to address the rising problem of attrition. Attrition rates in distance education courses are 10-20% higher than the dropout rates for classes taught in

a face-to-face setting (Angelino, Williams, & Natvig, 2007; Berge & Huang, 2004). Dagger and Wade (2004) reported distance learning attrition rates of up to 80% in the prior decade, and Stover (2005) found that retention rates for online learning were 15-20% lower than for on-campus classes.

Researchers have proposed a variety of reasons for increased attrition in distance education. Moody (2004) suggested that the lack of a learning community, inadequate course development, and absence of social contacts could contribute to a negative distance learning experience. Financial hardship, personal issues, and choosing the wrong program were the motives reported for dropping out of a distance program in a British study (Davis & Elias 2003). Wikeley and Muschamp (2004) found that engagement and communication were more challenging to establish in a distance education course, leading to student frustration and a lower rate of retention.

The providers of distance learning should better understand what engages students so that they might market their degree programs and provide a supportive academic community for distance learners (Yorke, 2004). Studies have shown that differences in motivations exist between the genders, adults of varying ages, and students in different academic programs (Boshier, 1991; Fujita-Starck, 1996; Morstain & Smart, 1974; Mulenga & Liang, 2008; Wolfgang & Dowling, 1981). This diversity of motivation should be addressed by institutions when developing new courses and programs for this population. It is essential that student needs and motivations be considered in all stages of an academic program in order to maintain student satisfaction and ensure persistence in their field of study (Fujita-Starck, 1996).

Increased attrition rates impact an institution economically through loss of tuition revenue and also reflect negatively on the educational quality of their programs (Moody, 2004). Universities and colleges offering distance learning must determine the root cause of soaring attrition rates in their programs and develop a strategy for retention. They should enhance their understanding of the demographics, life circumstances, and motivations of distance students in order to design curriculums and programs to meet the needs of these non-traditional learners.

Purpose Statement

The purpose of this study was to identify the motivational orientations that compelled individuals to pursue and complete a graduate degree through a distance education program. "The interest in motivational orientations stems from the almost universal desire to tailor program content and processes to the needs, motives and interests of learners" (Boshier & Collins, 1985). Utilizing Boshier's model (1971, 1991), this research sought to enhance awareness of student educational and professional objectives and to identify factors that may facilitate the recruitment and retention of graduate students in distance learning. A comparison of expressed motivational orientations among gender, age, academic program, and preferred method of delivery identified patterns distinct to these population subgroups. Findings from this study may support the development of educational programs and courses that will strengthen the learning experience and institutional support for the distance education student.

Research Questions

This study was conducted to answer the following research questions:

1. What are the most influential motivational orientations of graduate students in distance education programs?

    - Hypothesis: Professional advancement will be the most influential motivational orientation of graduate students in distance education programs. Studies have shown that this factor is consistently rated the highest by adult learners regardless of age or gender (Fujita-Starck, 1996; Morstain & Smart, 1974; Wolfgang & Dowling, 1981). While previous studies have focused on adult students in a variety of environments, this research focused specifically on the motivational orientations of graduate students.

2. Do differences exist in the expressed motivational orientations of male and female graduate students in distance education programs?

    - Hypothesis: There will be no significant difference in motivational orientations of female and male graduate students. In one of the original studies utilizing the EPS, female students showed a significantly higher motivational orientation of cognitive interest (Morstain & Smart, 1974). However, more recent studies have shown that gender does not predict motivational orientation (Mulenga & Liang, 2008; Yukselturk & Bulut, 2009).

3. Do differences exist in the expressed motivational orientations of distance education graduate students categorized into age groupings of 22-30, 31-44 and 45-59?

    - Hypothesis: Students in older age groups will score significantly higher on the motivational orientation of cognitive interest. Previous research has shown that students in older age groups rated factors of intellectual stimulation and

learning for the sake of learning as their most significant motivations in seeking education (Kim & Merriam, 2004; Mulenga & Liang, 2008; Wolfgang & Dowling, 1981). In addition to age group differences, interactions of gender and age group were also analyzed.

4. Do differences exist in the expressed motivational orientations of distance education graduate students based on their academic program? Based on enrollment in distance education graduate programs at this institution, participants were asked to identify their field of study as education, nursing, business, communications or other.

   - Hypothesis: There will be no significant difference in motivational orientations between students in education, nursing, business, communication, or other fields of study. There is a deficiency of research on the motivation of graduate students in these fields upon which to base a hypothesis.

5. Do differences exist in the expressed motivational orientations of distance education graduate students based on their preferred method of course delivery? Prior to completing the EPS-A, participants were asked to select their preferred method of distance education delivery. Participants chose between one of the following methods: face-to-face at a remote campus site, online course delivery, or web-conferencing.

   - Hypothesis: Students who prefer face-to-face courses will score significantly higher on the social contact orientation. Terrell, Snyder and Dringus (2009) reported that many doctoral students in distance education programs rated personal interaction with fellow students and faculty as a factor in their success.

Justification for the Study

Research on distance education has historically focused on technologies for teaching, equivalency to on-campus instruction, and the effectiveness of the medium. Further research on the individual student is needed in order to develop new programs and study comparisons to traditional programs (Jeffries, 2001). To realize the needs of the distance education student institutions must understand their reasons for choosing programs and their motivations to continue in the pursuit of a degree. This study was undertaken to elicit the thoughts and opinions of distance education graduate students, a population that has rarely been the focus of academic research. "The expansion of distance education requires a significant research base supported by evidence derived from formal investigation. The field of educational research can provide this foundation on which informed decisions can be made with regards to distance education" (Watkins & Schlosser, 2003, p. 331).

Although past studies have provided information on the impact of distance and online learning, there has been little research on the behavioral intentions or motivations of distance students (Chen & Lou, 2001). Diaz (2000) advocated students playing a significant role in the learning process and proposed that research should be focused on characteristics of individual learners. It was determined that knowledge obtained in this study could aid in the identification of factors that would make students successful in the varying modalities of distance education. It was also thought that analyses of student data from different demographics and academic programs could provide results that have been absent in previous studies.

Maushak and Ellis (2003) reported that although student perceptions and attitudes toward distance education have been studied extensively, there has been little focus on the experience of the graduate student in these courses. While each program of study has its own challenges, there is concern that the complexities of graduate courses cannot be addressed sufficiently in a distance education program (Butcher & Sieminski, 2006). It was thought that research focusing on graduate students as distance learners could enhance the understanding of their motivations and the factors that induce them to persist in their degree programs and could provide results enabling educators to develop curricula and programs to aid in targeting specific populations for recruitment. Research focusing on participation of adults in continuing education is of interest to institutions seeking to implement successful programs (Galbraith, 2004). This study sought to reveal motivational orientations of these students who have chosen to participate in their field of study in non-traditional courses or programs.

Definitions

Distance Education is delivery of instruction to students located outside the boundaries of a primary campus. This may include synchronous delivery of an online course in which the instructor and student are participating in the class at the same time or asynchronous delivery where students complete assignments and testing at their own rate according to pre-established timelines. Distance education instruction may also occur at a remote campus site, through interactive webcasting or via innovative course designs (Faison, 2003; Oblinger, Barone, & Hawkins, 2001). The term distance education is used synonymously with distance learning.

A distance education graduate student is an individual enrolled in a graduate certificate, masters or doctoral degree program through the School of Extended Education at Ball State University. Distance education inclusion criteria included participants who planned to complete a minimum of 50% of their course work in distance education courses.

Attrition is a decrease in the number of students from the start to the completion of a degree program (Berge & Huang, 2004).

Persistence is a student deciding to continue his or her education in his or her selected degree program (Berge & Huang, 2004).

Retention is a student continuing in a distance education graduate program until completion (Berge & Huang, 2004).

Motivational orientation is the reason why an individual makes the decision to participate in an educational program (Boshier, 1971, 1991).

Chapter 2

Literature Review

Overview of Distance Education

Distance learning is not a new concept in education, but has been offered in some form for the last three centuries. Structured education outside the traditional classroom began in the 1700s with basic correspondence courses delivered through the postal service (Casey, 2008; Gooch, 1998; Schweizer, 2004). In 1892 The University of Chicago was credited for expanding the concept of learning by correspondence by allowing its students to earn up to 30% of their degree by completing courses through the mail. Although institutions such as The University of Kansas and The University of Wisconsin also established successful correspondence programs, the academic community questioned the lack of interaction with students, and the concept was never universally adopted (Casey, 2008; Dobbs, Waid, & del Carmen, 2009; Hansen, 2001; Gaytan, 2007).

In the 1930's instructional radio was implemented at several colleges allowing students to listen to live lectures given by the instructor. This method of delivery was never widely accepted, and its implementation was considered unsuccessful (Hansen, 2001; Jeffries, 2001). The introduction of television as a method of instructional delivery in the 1960s was greeted with more success, allowing distance learners to both see and hear their instructors. This method of delivery reduced the time it took students to

complete a course by eliminating delays caused by mailing materials. By 1961, there were 53 stations affiliated with the National Education Television Network (Casey, 2008; Dobbs, Waid, & del Carmen, 2009; Gooch, 1998; Jeffries 2001; Schweizer, 2004).

The Articulated Instructional Media Project (AIM) was implemented in 1964 at the University of Wisconsin. This project investigated how outreach programming and the use of new technology could promote higher education (Gooch, 1998). Globally, the Open University concept began in Great Britain in 1969, and has been a model for distance education all over the world (Open University, 2005). These open learning programs began by utilizing television for instructional delivery and grew to offer computer-based courses. The Open University now offers programs through the Internet, digital libraries, and other multimedia sources (Berlanger & Jordan, 2000; Open University, 2005).

An early instance of a current model of distance learning was established in 1985 when the National Technological University opened in North Collins, Colorado. This institution offered continuing education and graduate courses by allowing downloading and distribution of educational course materials. Instruction was delivered by satellite transmission in real time or by previously recorded video (Casey, 2008).   In 1989 the University of Phoenix began offering online courses for undergraduate degree programs and has now grown to employ more than 3,000 faculty members who instruct over 40,000 online students in undergraduate and graduate education. In 1993 The Graduate School of America became the first institution to offer online graduate degree programs (Adams, 2006; Roach, 2002).

In the 1990s higher education institutions envisioned that distance education would aid in alleviating overcrowding of campuses, making it unnecessary for universities to construct new buildings to accommodate the anticipated population boom of new students. What they have found, however, is that while distance and Internet courses augment the studies of first-time undergraduates, adult students are the majority population enrolled in distance education courses and programs (Roach, 2002).

Enrollment in distance education university programs has grown at a faster rate than that of overall higher education with a 12.9% growth rate in 2007. Public institutions offer a greater number of online programs than private for-profit and private not-for-profit universities and colleges. The educational programs with the highest enrollment in distance education offer business degrees, while the engineering discipline has the lowest enrollment of distance students. The associate's degree is the program most frequently offered at a distance, and the master's degree is the second most prevalent (Allen & Seaman, 2008). During the 2007 academic year, two-thirds of degree-granting postsecondary institutions reported offering distance education courses online and through hybrid/blended online methods (National Center for Educational Statistics, 2008).

 In a survey by the Distance Education and Training Council (2007) the demographics for distance learning students in United States degree-granting institutions reported the average age of students as 37. The survey showed that 55% of the enrolled students were male and 45% were female. Characteristics of these students were: prior work and education experience, seeking to integrate new concepts with previous life experience, desire for practical applications, and desire for control of

their learning (Thompson, 1998). Distance education students were found to be older, married with children, and employed full-time (Faison, 2003). "While these findings are consistent across the online learning literature, they are not specific to graduate or professional programs" (Roach & Lemasters, 2006, p. 318).

Distance learning has become a popular option for students with disabilities. Online courses eliminate access problems and provide a flexible and practical option for the pursuit of higher education (Richardson, 2009; Stewart, Choi, & Mallery, 2010). Progressive technology developments have increased learning opportunities for students who had previously been unable to access continued education. It also has allowed access to a broader range of educational programs (Li & Irby, 2008; Oblinger, Barone, & Hawkins, 2001). Research has shown that students with disabilities can benefit from the use of modern online methodologies, including rich online text formats, audio, video, graphics, and animation (Stewart, Choi, & Mallery, 2010).

Berlanger and Jordan (2000) suggested three primary reasons for the dramatic increase in distance education programs and students. The first of these was that distance learning is inclusive of students for whom higher education was not previously realistic or accessible. The second reason given was that a larger number of students can be educated with fewer instructors, which is more cost-effective for the institution. Lastly, distance education offers a method for providing adult learners with opportunities for life-long learning, regardless of geographic location. Karber (2001) proposed that the demand for distance education has resulted from lifestyle changes for adults who are increasingly busy with work and family responsibilities, increased demand for higher

education with limited funds to expand on-campus facilities, and advanced technology, enabling institutions to offer courses and programs globally.

Distance learning has increased the flexibility and convenience of obtaining a college degree, especially for those students with personal responsibilities outside of the academic world (Economist Intelligence Unit, 2008; Yukselturk & Bulut, 2009). These programs are attractive to students whose location or circumstances have not allowed them to enroll in on-campus programs. In a study by Dobbs, Waid, and del Carmen (2009), students in distance education courses at a university reported the number one reason they enrolled was the flexibility of scheduling their classes. They also listed job and family responsibilities and travel time to the institution as reasons they preferred distance education courses.

Distance education is a field that is constantly evolving, and educational research is required to determine the best course and implementation of new strategies (Jeffries, 2001). However, due to factors endemic to the method of delivery, conducting research in distance education has presented challenges to educational researchers. For both quantitative and qualitative studies, it may be more difficult to research students at a distance than those in on-campus classrooms (Bernard, Abrami, Lou, & Borokhovski, 2004). In addition to the challenge of accessing students, the complexity of researching distance education includes uncontrolled variables in the learning environment, evaluation of learning, and economic impact of the varied instructional modalities (Saba, 2000).

The rapid growth of distance education globally has been a challenge to educational researchers. Watkins and Schlosser (2003) reported that distance education

has grown at a rate exceeding that of the research that has been done in the field. The

increased demand for higher education has forced institutions to quickly seek alternative

and flexible methods of delivery when they are unable to expand their on-campus

models. Without a deep empirical knowledge base, institutions have been required to

make decisions on courses, programs and formats without a strong research foundation

(Karber, 2001; Ural, 2007).

Historically, research studies in the field of distance education have been focused

on the effectiveness and credibility of the delivery method, and only more recently has

the learner been a focus of studies (Thompson, 1998). The majority of prior research has

focused on the comparability of distance education to traditional higher education

programs, with the underlying assumption being that traditional on-campus education is

the ideal of method of instruction (Diaz, 2000). In more recent years, researchers have

begun to study distance education as its own entity, and comparison studies with the

traditional classroom have decreased (Bernard, Abrami, Lou, & Borokhovski, 2004).

> Since the 1950s and expansion of social science research, distance education has
> been studied in comparison to face-to-face or classroom instruction. Although
> researchers continue to conduct comparative studies, their usefulness in revealing
> more information has diminished over the years; invariably, they have returned a
> finding of no significant difference between various forms of instruction (Saba,
> 2000, p. 7).

To gain a more comprehensive understanding of the field, future research in distance

education should focus on empirical research, new methods of inquiry, model

development, and strategic planning (Saba, 2000; Watkins & Schlosser, 2003).

Online Instruction in Distance Education

Widespread use of the World Wide Web in homes, industry, and schools has resulted in an unprecedented interest in online distance learning by institutions and their students (Roblyer, 1999). Online degree programs were once considered a niche market, but they have rapidly become part of mainstream academic institutions, providing new students and revenue opportunities for universities and colleges (Economist Intelligence Unit, 2008). Growth in the online market has virtually eliminated geographic barriers to education and has created competition for students that were previously bound to institutions near their home (Roach & Lemasters, 2006).

Many research definitions of distance education ignore off-campus methods of delivery and define distance learning exclusively in its online form. A study by the National Center for Educational Statistics (2008) reported that the most widely used instructional delivery method for distance education courses was asynchronous Internet-based technologies. The Internet is being utilized more than any other distance education strategy, including interactive television, correspondence courses, or remote live classroom instruction.

Internet technologies provide mediums including bulletin boards, chat rooms, and e-mail that allow students and instructors to interact, share knowledge, and simulate a traditional, on-campus classroom (Chen & Lou, 2001; Steinbronn & Merideth, 2008). Online interactive media allow for group discussions, file sharing, and self-assessment tools in easily programmed e-learning environments (Smith & Hardaker, 2000). In a study of university faculty who had taught online courses for a minimum of three years, student-to-student electronic discussions, feedback from the instructor, and e-mail

communication between students and the instructor were ranked as the most beneficial instructional strategies (Steinbronn & Merideth, 2008).

The advancement and availability of technological learning systems has compelled colleges and universities to provide an increasing number of courses and programs utilizing these methods. Casey (2008) reported that the development of new technology was the instrumental factor leading to the growth of distance education in the United States. The availability of online education has led to increased participation of adults who want to further their education and obtain a degree (O'Lawrence, 2006). This increase in online learning is not limited to the United States or to the field of education. Academic institutions, businesses, and not-for-profit organizations are utilizing technology to build international educational programs online. As Internet education grows, organizations and institutions that offer programs must ensure that the foundations of access, design, scheduling, and language are taken into account for global audiences (Cercone, 2008; St. Amant, 2007).

There have been challenges for both institutions and students in the implementation of online educational programs. Research has shown that creators of online courses have sometimes presumed in error that Internet learners have an established technical skill level. This has led to problems for students whose need for online learning strategies have been overlooked (McLoughlin, 2002). A study by Martens, Bastiaens, and Kirschner (2007) revealed that the expectations of the designers of Internet courses were not in alignment with student perceptions of online environments.

Inherent in the use of the technology and the Internet is the potential for technical problems that may result in interference with the learning process. In a study by Maushak and Ellis (2003) 44% of survey respondents agreed that technical issues had disrupted learning during their semester in an online class even when they had help desk support available. Factor analysis in a survey study by Muilenburg and Berge (2001) identified a lack of support for technical problems as a significant barrier to online education. To implement online instruction programs successfully, technical support must be available to all students in a timely manner, regardless of their geographic location.

Along with technical support for the student, assistance and training in course design is essential for faculty members who develop and teach Internet courses. Instructors should have sufficient access to application support personnel when dealing with technological issues (Oblinger, Barone, & Hawkins, 2001). When institutions first began offering classes online, it was envisioned that instructors could teach hundreds of students in these courses, just as they did in a lecture hall. It was realized early on that to provide effective online learning courses should be offered in smaller sections of up to 25 students (Roach, 2002). Faculty course load may be overlooked when an institution is planning to offer online courses, but it is imperative that instructor resources be considered. For Internet courses to be effective instructors must have time to interact with students, monitor their progress, and offer timely feedback (Howell, Williams, & Lindsay, 2003; Roach & Lemasters, 2006).

Course design is a significant factor impacting the learning of an online student. When designing courses, instructors and instructional designers must consider the varied

student population that may be enrolling in these classes. Cercone (2008) provided these recommendations in the design for all online courses: ensure compliance with the Americans with Disabilities Act; provide a help function that is context specific; include practice for self-testing and feedback functions; ensure there is no cultural bias; include a clear menu structure; and use large, easy to read fonts and clear, bold colors. In addition to instructional goals designers must remain aware of the needs of older learners, students with disabilities, learners from different cultures, and the varying technical skills of distance learners (Cercone, 2008; Martens, Bastiaens, & Kirschner, 2007; McLoughlin, 2002; St. Amant, 2007).

Online educational research also has included examination of student and faculty experiences in Internet courses. A study by Choy, McNickle, and Clayton (2002) surveyed the expectations of online students and found these 10 services ranked as the most important for an optimal online experience: detailed information about the database; detailed information about the course; security for personal information; clear learning objectives; beneficial feedback from instructors; timely feedback from instructors; methods for communication with the instructor including e-mail, online chat, and face-to-face interaction; testing requirements; information on who can assist with technical problems; and enrollment information. In the same study, online faculty reported that the services most often sought by students were the ability to communicate by e-mail or phone, an orientation to how the Internet application and course structure worked, and a helpdesk for general information and technical assistance.

It has been reported that the absence of face-to-face interactions between students and instructors may result in challenging communication and collaboration during

Internet courses. Reported problems include students who do not participate fully in online discussions, a deficiency of instructor feedback, and difficulty establishing relationships (Muirhead, 2000). Online instruction has been described as having the "potential to depersonalize the teacher-student relationship and impede the teacher's ability to understand their students" (Bellon & Oates, 2002, ¶ 1). In a study by Exter, Korkmaz, Harlin and Bichelmeyer (2009) online students reported significantly less interaction and communication with faculty and classmates than their residential counterparts.

Alternately, there has been research showing that online learning and associated technology can improve the learning experience for students. A majority of participants in a study by Chen and Lou (2001) were motivated by courses offered online and felt that technology could actually improve their academic outcome. In a study by Menchaca & Bekele (2008) it was shown that the use of interactive technologies in online courses led to learning and successful outcomes for students. The participants reported that technology tools allowed them to actively participate in educational programs and engage with their instructors and other students. These findings were supported in a survey by the Economist Intelligence Unit (2008) where 52% of respondents reported that online collaboration tools had improved their educational quality. Bernard, Abrami, Lou, and Borokhovski (2004) suggested that disparities in research findings in online education may result from the varied methodologies employed by educational researchers, the difference in sample sizes, and non-equivalence among the students being studied.

The most prevalent research topic in online education has been the equivalence of learning and academic achievement between traditional classroom learning and online

learning. The majority of studies have found no significant difference between the two methods of delivery (Russell, 1999; Sitzmann, Kraiger, Stewart, & Wisher, 2006), but this has not been true in all cases. A university study of education students reported that students taking a traditional course scored significantly higher in two out of three measures than online students taking the same course with the same instructor and examinations (Ferguson & Tryjankowski, 2009). Conversely, a meta-analysis by Shachar and Neumann (2003) reported that in the majority of instances, online students performed better academically than traditional students.

There are also those who have argued that technology has no impact on academic achievement. Clark (1983) stated that "The best current evidence is that media are mere vehicles that deliver instruction but do not influence student achievement any more than the truck that delivers our groceries causes changes in our nutrition" (p. 445). Echoing this belief was Russell (1999), who performed an extensive review of research studies on the equivalence of Internet and traditional courses. He concluded that technology does not improve or lessen the quality of education; it is merely a device to deliver the chosen instructional method.

In recent years there has been less research focused on equivalence between traditional and online courses and more emphasis on studies that investigate the attitudes and characteristics of successful online students. Studies that have focused on the personality types and learning styles of online students reveal that they are often intrinsically motivated and self-directed (Stevens, T., & Switzer, C., 2006; Wighting, Liu, & Rovai, 2008). These results were consistent with findings by Martens, Gulikers, and Bastiaens (2004) who reported that students with higher intrinsic motivation displayed

significantly more explorative study behavior and had better learning experiences than those who were extrinsically motivated. Online students also reported a preference for autonomy in learning, flexibility in courses, and the ability to pace themselves in online classes (Roblyer, 1999; Stevens, T., & Switzer, 2006).

Taking into consideration the characteristics of distance education students, Cercone (2008) concluded that for adults to have a high quality experience in online learning, the courses must include: social interaction and collaborative learning with classmates, a connection between their previous experiences and new knowledge, ability to immediately apply learning, an environment allowing self-reflection, and self-regulation of learning. Instructors, students, and designers of online education must adapt to the method of delivery, not only in course content, but also in consideration of the demographics, characteristics, and life circumstances of the typical online student.

Attrition, Persistence, and Retention in Distance Education

"With funding tied closely to student enrollment and accreditation, completion rates have become a significant measure in higher education" (Howell, Laws, & Lindsay, 2004, p. 243). These metrics have become a considerable issue in distance education due to the significant rate of attrition in these programs. In the past decade, distance learning institutions have reported attrition rates of up to 80% (Dagger & Wade, 2004). Dropout rates for online programs have been reported as 10-20% higher than for traditional courses (Angelino, Williams, & Navtig, 2007; Berge & Huang, 2004). In a survey by the Distance Education and Training Council (2007) the average graduation rate for distance students in degree-granting institutions was 66%. While the majority of data reported from universities has shown high attrition rates for distance students, some institutions

have reported completion rates equivalent to or higher than their traditional offerings (Roach, 2002).

These statistics on attrition and retention are the basis for increased research into why students often fail to persist in distance education programs. In a survey of students in the United Kingdom who had dropped out of college Davis and Elias (2003) found the three most commonly reported factors in attrition were financial hardship, personal problems, and a mistake in the choice of program of study. Moody (2004) proposed that the lack of a learning community, inadequate course development, and absence of social contacts could contribute to a negative experience and lead to attrition in distance courses.

In contrast to these findings a study by Kemp (2002) showed that life events did not play a significant role in whether distance education students persisted in their courses. The study reported that resiliency skills were a higher indicator of persistence than life events, and the researcher proposed that internal motivations of distance students were stronger influences on retention than external factors.

Park and Choi (2009) recommended that instructors should consider the internal motivation of students when designing courses in order to ensure student engagement. However, they also proposed that administrators take external factors into account due to their impact on the learning environment of the student and ultimately on their persistence in a course or program.

Another factor that has been associated with attrition in distance education students is a lack of connection to the institution, instructor, and classmates. Wikeley and Muschamp (2004) proposed that engagement and communication is more challenging to

establish in a distance education situation, and access to a research community is more difficult to achieve. This was consistent with findings in a study by Maushak and Ellis (2003) who reported that approximately 30% of the students in an online class did not feel as involved or engaged as they would have in a traditional course.

Terrell, Snyder and Dringus (2009) studied doctoral student connectedness in distance education and found that students at risk for dropping out did not feel engaged with other students or the faculty. They reported that association with fellow students was a crucial component of the graduate experience, and students who were not engaged were more likely to leave the program. The support and encouragement received in interactions with faculty and classmates were found to be essential for successful persistence.

Gaytan (2007) proposed that the development of online learning communities was needed to facilitate effective and consistent communication among students and instructors that would improve the overall learning experience. In an analysis of an online graduate discussion group Misanchuk and Dueber (2001) found that there was little evidence of the presence of a learning community in an educational technology course. Discussions were task oriented and students spent little time on social issues or sharing of personal thoughts or information. Learning communities in an online course were also the subject of a study by Muilenburg and Berge (2001). They found that students who participated in distance learning felt a sense of isolation that could be potentially alleviated with the establishment of an online community.

In contrast to these findings students in a study by Wighting, Liu, and Roval (2008) rated the importance of a social community in online courses as less important

than in traditional programs. In alignment with these findings are results from several studies on motivational orientations of degree-seeking distance education students. In these studies adult students rated social relationships and social stimulation as less influential than other reasons to participate in education (Bellon & Oates, 2002; Roblyer, 1999; Wolfgang & Dowling, 1981).

An additional theory for increased attrition is that rates reflect both the changing economy and the characteristics of distance learning students. Yorke (2004) suggested that students may come and go in distance education programs as their life circumstances and finances permit. For the student, this is another form of flexible distance learning. These programs allow participants to reach personal and professional goals within their own timeline as opposed to traditional higher education models. What is seen as positive and flexible for the student, however, can cause a problem for the institution when planning resources and financing of programs.

Diaz (2002) expressed a similar belief when stating: "I believe that many online students who drop a class may do so because it is the right thing to do" (p. 3). If a student must withdraw from a class due to family, professional, or personal reasons, it should not be seen as a negative. Diaz proposed that a student should re-enroll in classes when they are able to spend the time needed to reach a successful outcome. The dropping of a class should not be seen as academic failure but as a decision based on the well-informed judgment of the student.

Howell, Laws, and Lindsay (2004) proposed that comparison of attrition rates between traditional and distance education was akin to comparing apples to oranges. Differences in student demographics, inconsistency in calculating completion rates, and

the part-time status of a majority of distance students are cited as rationale for not comparing these retention rates. They suggested that if completion rates were to be utilized to evaluate the effectiveness of courses, the comparison should be done between equivalent classes or programs.

This concept aligns with Simpson (2003) who believed that attrition was not measured consistently among distance education programs. Rates for dropping a course or failure to complete a course include students who withdraw before the course begins, individuals who drop a course after it starts, or students that fail the course altogether. Also, it is not always apparent whether attrition is being measured as students who drop a single course or by those who leave a program before completion of a degree.

Distance education is a competitive arena, and institutions must align their offerings to the needs and expectations of the students. When the programs and courses do not meet the needs of the student, persistence in programs may decrease (Yorke, 2004). Students make choices based on their treatment by the institution, and this can significantly impact their educational decisions. Stover (2005) proposed that institutions must focus on managing the attrition of students for the sake of financial concerns and the credibility of their programs.

Although there has been a considerable amount of research on the subject of retention in distance education, a solution to fit all problems has not been identified. Studies have shown that a learner centered approach with an emphasis on personal, institutional, and circumstantial variables can improve retention of these students (Berge & Huang, 2004). To retain these distance learners, institutions must understand the students, their goals, and their life situations.

Motivation

Motivation has been defined as "the forces that account for the arousal, selection, direction, and continuation of behavior" (Snowman & Biehler, 1997, p. 399). Maslow, an early theorist, proposed that motivation was based on a hierarchy of needs. He believed that humans have a minimum of five sets of goals or basic needs, including physiological, safety, love, esteem, and self-actualization. The motivations that humans act upon have their origin in meetings those goals, and any motivated behavior can be understood by looking at the expressed or satisfied needs of an individual. His theory also proposed that human behavior was motivated by an individual's perceived deficiencies and need for growth (Maslow, 1972).

Deci and Ryan (1985) described an organismic theory of intrinsic motivation where an individual engages in behavior with the objectives of autonomy and competence. A person makes his or her decisions based on goals that are not externally rewarded or controlled. This self-determination theory proposes that an individual is motivated to satisfy his or her personal needs of competence, self-determination, and connectedness (Deci, 1980).

Bandura also supported the belief that human behavior and learning was associated with intrinsic motivation and self-direction. He proposed that learning was based on cognitive self-motivation and the process of proximal goal setting. Individuals develop a system of internal standards and persist in their efforts in learning until self-satisfaction is reached. His theory of self-evaluation proposed that a major motivation for education is an individual's dissatisfaction with what he or she perceives as achievements and successes (Bandura & Cervone, 1986; Bandura & Schunk, 1981).

Self-direction is a significant theme in the andragogy model of adult learning (Knowles & Associates, 1984). This theory "assumes that adults become ready to learn when they experience a need to know or do something in order to perform more effectively in some aspects or their lives" (p. 11). There are four assumptions in this theory of adult learning. The first is that adults feel the need to be self-directed and involved in their learning situation. The second assumption is that adults bring varied life experiences to learning and desire to connect new learning to their existing base of knowledge and experiences. Third, adults identify when they are ready to learn and are goal oriented in their learning. The fourth assumption of adult learning is that adults base their interests and needs around real life situations and problems (Knowles, 1973; Knowles & Associates, 1984; Knowles, Holton III, & Swanson, 1998). This model also predicts that internal motivators will ultimately be more influential for adult learners than external motivators and that adults are likely to seek learning opportunities when an internal need is not being met (Cercone, 2009; Knowles & Associates, 1984).

Wlodowski (1985) also studied adult motivation and proposed that adults will be motivated to learn when these four factors are present: the individual can be successful in his or her learning; the adult believes he or she has a choice in what he or she is learning; the learning is seen as personally valuable to the individual; and the person can take enjoyment from the learning. If adults do not believe they will be successful in learning, they will not be motivated to do so. In order to embrace learning, adults must understand why they need to learn something and why it will be of value to them.

Vroom (1964) proposed an adult theory of motivation that is consistent with the ideology that the most valued learning has a personal significance to the individual.

Expectancy theory was developed in studies of organizational behavior and focused on the work and career motivations of adults. This model is based on outcome and is comprised of the three principles of expectancy, instrumentality, and valence. Expectancy is the concept that increased effort will lead to enhanced performance. Expectancies can be considered of maximal strength when the individual is assured of the outcome or zero strength when they are certain that the act will not be followed by the desired outcome. Instrumentality proposes that better performance increases the likelihood of the desired positive outcome, and valence is the importance that an individual places on the expected outcome. In essence, motivation is enhanced when a person believes that his or her effort will result in an outcome that is significant or beneficial to them (Knowles, Holton III, & Swanson, 1998; Vroom, 1964).

Related to these theories on how adults are motivated to learn is the extensive research that has been conducted to examine why adults are motivated to participate in continuing education. Houle (1961) utilized in-depth interviews to explore the motives of 22 adults enrolled in a continuing education course. Participants in the study reported diverse reasons for pursuing education, and from these findings, Houle designated three motivational orientations for adult learners. He proposed that an adult could be goal-oriented in their pursuit of education, activity-oriented, or learning oriented. Goal-oriented adults participate in education in order to achieve an objective, such as finding a job. Activity oriented individuals pursue learning for social reasons, and learning oriented adults seek knowledge as an intellectual pursuit (Boshier, 1971; Houle, 1961; Kim & Merriam, 2004; Knowles, 1973).

Critics of Houle's research proposed that it was limited by the small sample and his findings of only three orientations; however, his theoretical foundation has been utilized as the basis for further research on adult motivation (Boshier, 1971; Kim & Merriam, 2004; Sheffield, 1964). Houle's model was utilized by Sheffield (1964) in the development of 58 reasons that adults participate in education, leading to the creation of an instrument to measure motivational orientations for adult learning. Utilizing factor analysis, Sheffield proposed these five motivational factors: learning orientation, desire-activity orientation, personal goal orientation, societal goal orientation, and need-activity orientation. The findings of this study provided evidence that adult learner orientations existed and differed in scope based on the individual.

Burgess (1971) utilized the theoretical framework of Houle in the development of an instrument that investigated the reasons why adults choose to participate in education. His findings resulted in a tool containing seven orientation factors: the desire to reach a personal goal, the desire to reach a social goal, the desire to reach a religious goal, the desire to escape, the desire to take part in an activity, and the desire to comply with formal requirements. This theory expanded on previously cited orientations to include religious education, as well as, the concept of seeking education to fulfill official or formal obligations.

Boshier (1971) conducted research of adult learners in New Zealand based on the Houle typology to "facilitate the growth of theory and models to explain participation, throw light on the conceptual desert that underpins adult education dropout research, and enhance efforts to increase the quantity and quality of learning experiences for adults" (p. 3). This study led to the creation of the Education Participation Scale (EPS), a factor-

based measure that analyzes the motivation of adults who participate in education. The original scale contained 58 reasons for participation in adult education, and a random sample of 453 students was asked to rate the level of influence of each item. From these data 14 factors of motivation for adult learners were extracted. The motivational orientations were identified as: social welfare, social contact, other-directed professional advancement, intellectual recreation, inner-directed professional advancement, social conformity, education preparedness, cognitive interest, educational compensation, social sharing, television abhorrence, social improvement, interpersonal facilitation, and educational supplementation (Boshier, 1971).

The original EPS was used broadly by researchers of adult participation in education (Kim & Merriam, 2004). Morstain and Smart (1974) utilized the tool in a study of college students in the United States and found that six of Boshier's fourteen motivational orientations were rated as significant factors. After further studies and inter-correlational analysis, Boshier (1991) developed an alternative form of the EPS scale and recommended that the original form be retired. Factor analysis of the EPS-A resulted in seven motivational orientations: communication improvement, professional advancement, educational preparation, cognitive interest, social contact, social stimulation, and family togetherness. Fujita-Starck (1996) confirmed these seven factors in a study comparing motivational orientations among curricular groups. The EPS-A instrument was utilized in this study.

The incidence of adults seeking continuing education has been associated with transitions in life. These transitional events may prompt adults to seek education in order to cope with life changes or find new direction. Job related transitions are frequently

cited as the motivation for an adult to pursue continuing education. Other life changes identified as reasons to continue education are divorce, family problems, health issues, parenthood, or retirement (Brockett, 2008).

In addition to research focused on motivations for adult learners there also have been studies conducted specifically on the academic and social motivations of college students. Castellena (1972) theorized that motivation is required for personal achievement and that higher education students are increasingly aware of the impact that motivation plays in their academic success. He believed that students must understand the relationship between academic persistence and societal impact in order to set their future goals. Students studying in the social sciences must be motivated by issues such as poverty and human suffering in order to understand the true value of their educational experience.

In more recent literature a study on the motivation of college seniors found that receiving a degree was the highest rated academic motivation, indicating their focus on how a college education would impact future goals. Earning good grades was also ranked as a significant motivation, particularly for the students planning to apply to graduate school. These participants also reported increased motivation when they believed they had choices in their course work and when they felt what they were learning would be beneficial to them in real life (Van Etten, Pressley, McInerney, & Liem, 2008).

Cosman-Ross and Hiatt-Michael (2005) reported that adult college students were motivated primarily by self-improvement and a sense of achievement. The results of their study showed that intrinsic motivators rated higher than external motivators for all

of the participants. This study also examined the relationship of motivation to the financial responsibility for tuition held by the student. The students that were being reimbursed 100% by their employers ranked self-improvement as a primary motivator. Students that were responsible for partial cost of tuition rated obtaining a degree as their number one motivator more often than participants from the other two groups. The students who were paying their full tuition rated increased earning power higher than earning a degree.

Studies examining the motivations of distance education college students have increased in the last decade, and findings have shown that successful students are often intrinsically motivated (Stevens & Switzer, 2006; Wighting, Liu, & Rovai, 2008). In a study on motivation in e-learning courses it was found that the intrinsic motivation components of exploration, curiosity, and an interest in collaboration were keys to successful learning in an online environment (Martens, Bastiaens, & Kirschner, 2007). Online courses provide the opportunity to learn independently and be autonomous which may more directly match the needs of a student that is intrinsically motivated. Rienties, Tempelaar, Van den Bossche, Gijselaers, and Segers (2009) reported that students contributed to online learning discussions differently based on whether their motivation was intrinsic or extrinsic. Results from their study showed that intrinsically motivated students were higher contributors to online discussions in distance learning classes than externally motivated participants.

There is very limited research on motivations of graduate students in distance education, but Butcher and Sieminski (2006) explored this narrowly in a study of distance education doctoral students. This study reported that the development of academic skills

and knowledge was rated highly on a question of why these students had enrolled in their programs. As the number of graduate students enrolling in distance education programs increases, educators and administrators will be challenged to understand and respond to their motivations and reasons for participation. Further research on this specific population of distance learners is needed to identify the distinctive characteristics, needs, and diverse motivations of this group.

Chapter 3

Method

Participants

  Population. The population for this study was graduate students enrolled in distance education programs. A non-probability purposive sample was utilized for the study, selecting participants who were accessible to the researcher and also met the criteria of having chosen to pursue graduate degrees in an established university distance education program. The participants for this study were enrolled in masters, doctorate, and graduate certificate programs at Ball State University in Muncie, Indiana, in fall semester, 2010. To be considered a distance education student for the study participants were asked to verify that a minimum of 50% of their course work would be completed in distance education classes. Approval to survey this population was obtained through the School of Extended Education (Appendix A).

  Ball State University offers approximately 20 master's degree programs through distance education and three doctoral degree programs that combine distance education and on-campus courses. According to the School of Extended Education, 2,262 graduate students were enrolled in fall semester, 2010, in online instruction, web-conferencing, and satellite campus courses. The majority of graduate students enrolled in distance programs at this University are found in the fields of education, nursing, business, and communications.

Sample. The web-based survey link was forwarded to 2,262 students at Ball State University. This encompassed all graduate students enrolled in distance education courses for fall semester, 2010. An adequate sample size for descriptive research is generally 10-20% of the population, but factors such as the number of subgroups and overall population size should be considered (Gay, Mills, & Airaisan, 2006). According to the sample size table developed by Krejcie and Morgan (1970), the suggested sample size for a population of 2,200 is 327 participants. However, the population specified for this study only included respondents who met the criteria of completing or planning to complete at least 50% of their program in distance courses. Because this information was self reported at the time of the survey, the number of non-respondents who met the inclusion criteria could not be determined. There were 61 participants who entered the survey who verified that they did not meet the inclusion criteria, so the actual population size can be stated as less than or equal to 2,201 students.

The number of students who logged into the survey and provided an answer to at least one question was 227, a 10% total response rate. Two hundred eight of the respondents completed the entire survey, resulting in a 9% response rate. Of those 208 respondents, 166 confirmed meeting the definition of a distance education student for this study. Accordingly, data from 7.5% of the population were determined usable for the analyses. The 42 students who did not meet the distance inclusion criteria are referred to as traditional students in the analyses.

The majority of the 166 distance education survey respondents were female ($n = 128$, 77.1%). The age of participants was spread out fairly evenly, with 31.3% of

participants being 22-30 years old (n = 52), 41.6% of participants 31-44 years old (n = 69), and 27.1% of participants being 45-59 years old (n = 45).

For academic program, 67.5% of participants were in education (n = 112), 17.5% were in nursing (n = 29), and 7.2% were in business (n =12). The response size for communication was two students. Due to the small n size, communications was rolled into the group, other, for analysis purposes. Therefore, 7.8% (n = 13) respondents were in the group, other. The other category also included responses from students in architecture, social work, psychology, dietetics, public relations, executive development, and political science. In addition, the majority of the participants preferred the Internet as their distance learning method (n = 131, 78.9%), while 11.5% (n =19) preferred face-to-face courses at a remote campus site, and 9.6% (n =16) selected web-conferencing as the preferred method of delivery. Demographic percentages and frequencies for both distance and traditional respondents can be seen in Table 1.

Table 1

Demographic Characteristics of Samples

	Distance Learners		Traditional Learners	
Demographic	*n*	%	*n*	%
Learner type	166	79.8	42	20.2
Gender				
Male	38	22.9	10	23.8
Female	128	77.1	32	76.2
Age				
22-30	52	31.3	17	40.5
31-44	69	41.6	16	38.1
45-59	45	27.1	9	21.4
Academic program				
Business	12	7.2	1	2.4
Other	13	7.8	15	35.7
Education	112	67.5	25	59.5
Nursing	29	17.5	1	2.4
Preferred distance method				
Internet	131	78.9	24	57.1
Face-to-face remote campus	19	11.5	14	33.3
Web-conference	16	9.6	4	9.5

Research Design

The design of this study was quantitative, non-experimental, descriptive research, and the strategy utilized was a web-based survey. The principles of survey research are that it provides a breadth of coverage, presents a snapshot of opinions and views at a specific point in time, and utilizes empirical research (Denscombe, 2007). Advantages of implementing a web-based survey are that a larger number of people can be reached in a short amount of time; follow-up can be done through e-mail; and it is cost-effective for the researcher. Web-based data collection is convenient for the participants, allowing them to access the survey from any computer with Internet access. Another advantage of the survey technique is that data can be easily quantified and statistically analyzed (Rea & Parker, 2005). The primary disadvantage of an anonymous web survey is a potential lack of participant response and the inability to track information on non-responders. Consequently, low response rates can lead to incomplete research and insufficient conclusions (Gay, Mills, & Airasian, 2006).

Procedures

Demographic questions and the survey contents were transcribed into a Survey Monkey® format. Comparison of the original form of the EPS-A with the electronic format was conducted to confirm that there were no transcription errors. An introductory e-mail with the survey link was provided to the School of Extended Education by the researcher. The e-mail provided an explanation of the study and requested participation by students who were enrolled in distance education courses. The e-mail included an assurance of confidentiality, instructions on how to access the survey, and a link to the Survey Monkey® location. The introductory e-mail is provided in Appendix B.

In order to maintain the confidentiality of enrolled students a contact from the School of Extended Education identified the specified population and the e-mail was forwarded to those students. The researcher verified with the Extended Education Office that the e-mail was successfully distributed. After two weeks, the e-mail was resent to potential participants. The link remained open on Survey Monkey® for two weeks following the second e-mail and was closed by the researcher.

Data Measures

A web-based survey tool was utilized to administer the survey in this study. Advantages of an electronic survey method include confidentiality and security, convenience for researchers and participants, rapid data collection and processing, and ease of follow-up (Rea & Parker, 2005). The population for this survey, distance education graduate students, regularly utilize Internet technology for completion of their courses and communication with fellow students and instructors. A web-based tool was chosen to align with the experiences and circumstances of online and distance learners.

The first question in the survey asked the participant whether he or she planned to complete at least 50% of his or her graduate program in distance education courses. This served to identify those students who met the definition of distance education students as described in this study.

In order to conduct analyses of the motivational orientation scores for specified subgroups the following data were collected in Survey Monkey®:

- Gender
- Age: three age groups were established for this study. The age groups 22-30, 31-44, and 45-59 provided adequate sample sizes for analysis and closely aligned

with age groupings of previous studies of adult learners (Fujita-Starck, 1996;

Morstain & Smart, 1974; Wolfgang & Dowling, 1981).

- Academic program: education, nursing, business, communications, or other.

   These programs were chosen based on the graduate degrees offered through

   distance education at Ball State University.

- Preferred method of distance education delivery: face-to-face at a remote campus

   site, online course delivery, or web-conferencing.

The EPS-A is composed of 42 Likert-type questions that present potential reasons

for participating in adult education. Respondents were asked to respond to each item

according to its level of influence on their decision to participate in their graduate

program. Response levels on the scale included no influence (=1), little influence (=2),

moderate influence (=3), and much influence (=4).   Each item was associated with one

of the seven motivational orientations as proposed by Boshier (1991). The EPS-A was

obtained from the author with the understanding that it would be utilized electronically,

as shown in Appendix C.

   The seven motivational orientations measured by the EPS-A are identified as (1)

communication improvement: seeking education to improve verbal and written skills,

learn a new language, or enhance communication between cultures; (2) social contact:

participation in education because the student enjoys learning with others and wants to be

part of a group; (3) educational preparation: participation in education to remediate

deficiencies in learning or in preparation for a more specialized type of learning;

(4) professional advancement: participation in education to strengthen the student's status

at their current job or to position themselves to advance professionally; (5) family

togetherness: participation in education to seek common ground in relationships, to share an activity, or to bridge a generation gap; (6) social stimulation: participation in education to escape from routine, alleviate boredom, or provide a diversion from social problems; and (7) cognitive interest: participation in education for the sake of learning (Boshier, 1991; Garst & Ried, 1999; Morstain & Smart, 1974; Tassone & Heck, 1997). Motivational orientation is defined as the reason why an individual makes the decision to participate in an educational program (Boshier, 1971, 1991).

Composite scores were created from the survey questions. Communication improvement was created from the sum of questions 6, 13, 20, 27, 34, and 41. Social contact was created from the sum of questions 7, 14, 21, 28, 35, and 42. Educational preparation was created from the sum of questions 8, 15, 22, 29, 36, and 43. Professional advancement was created from the sum of questions 9, 16, 23, 30, 37, and 44. Family togetherness was created from the sum of questions 10, 17, 24, 31, 38, and 45. Social stimulation was created from the sum of questions 11, 18, 25, 32, 39 and 46. Cognitive interest was created from the sum of questions 12, 19, 26, 33, 40, and 47 (Boshier, 1982).

The original EPS was developed based on Houle's typology and was utilized broadly in studies of adult students. In 1991 Boshier created the alternative form of the EPS based on multiple studies of heterogeneous populations. The new instrument was derived from the findings of these studies and was not based on Houle's clusters or any other theoretical foundation. The EPS-A was found to be psychometrically sound, and the original EPS form was retired (Boshier, 1991).

Psychometric properties of the EPS-A tested by Boshier included construct validity, which was determined through factor analysis of an initial 400 reasons for

enrolling in adult education. "Ten, nine, eight, seven, and six factor solutions were examined. Impure items loading on more than one factor were dropped as were most of those loadings less than .50" (Boshier, 1991, p. 153). The seven factor, 42-item instrument was adopted based on the factor loadings provided in Appendix D. Concurrent validity of the scale was evaluated by correlation of the scores of 23 students on the original EPS form and the EPS-A. A significant correlation was found between the 42 logically intersecting items on the two scales, $r = 0.62$ (Boshier, 1991).

Reliability of the EPS-A was determined by examining the internal consistency of each factor by calculation of the coefficient alpha for scores from 845 forms. This produced a sufficiently high range of scores from 0.91 for the social contact factor to 0.76 for cognitive interest (for this sample, the coefficients ranged from 0.59 to 0.90). Test/re-test reliability was measured in a class of 65 students who took the EPS-A twice, six weeks apart. The mean stability over time coefficients for the factors ranged from 0.56 for communication improvement to 0.75 for social contact, and were all found to be significant at the $p < .001$ level (Boshier, 1991).

Fujita-Starck (1996) investigated the validity and reliability of the EPS-A in a study of university students and confirmed Boshier's seven factor structure. This solution, "maximized factor reliability, produced well-defined factors with a reasonable number of items, and provided a meaningful interpretation of the data consistent with established theoretical constructs" (p. 31). Results from this study also demonstrated that the EPS-A could be utilized for identification of motivational orientations in specific curricular groups (Fujita-Starck, 1996; Garst & Ried, 1999; Kim & Merriam, 2004).

Data Analysis

Upon closure of the survey by the researcher, responses were downloaded from the Survey Monkey® site into a Microsoft Excel® spreadsheet. Response rates were calculated for the overall number of respondents, the number of usable surveys, and for the specified population of distance education students. Data were entered into The Statistical Package for the Social Sciences® (SPSS), which was utilized for data analyses. The EPS-A scale contained 42 Likert-type survey questions, with six items associated with each of the seven factors. The EPS-A responses were scored according to the standard key and factor scores for each participant were summed. The data collected from the scale were organized and summarized with descriptive statistics. Central tendency for each orientation factor was measured utilizing the mean, and variability of scores for each factor was calculated using the standard deviation.

To examine research question one, a repeated measures analysis of variance (ANOVA) was conducted to assess if there were significant differences between the seven motivational orientations for the distance learning participants. To examine research question two, a multivariate analysis of variance (MANOVA) was conducted to assess if there were differences in the seven motivational orientations by gender for distance learning participants. To examine research question three, a MANOVA was conducted to assess if there were differences in the seven motivational orientations by age group for distance learning participants. In addition, a two-way MANOVA was conducted to assess if there were differences in the seven motivational orientations by the interaction of gender and age group for distance learning participants. To examine research question four, a MANOVA was conducted to assess if there were differences in

the seven motivational orientations by academic program for distance learning

participants. To examine research question five, a MANOVA was conducted to assess if

there were differences in the seven motivational orientations by preferred method of

course delivery for distance learning participants. Where significant differences were

found in ANOVA or MANOVA testing, post hoc tests were employed to identify the

specific differences.

Chapter 4

Results

Research Question 1

What are the most influential motivational orientations of graduate students in distance education programs?

To examine research question one, a repeated measures ANOVA was conducted to assess if there were differences among the seven motivational orientations (communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest) for distance learning participants. Normality was assessed with seven Shapiro Wilk tests. All of the tests were significant, thereby violating the assumption of normality. However, according to Stevens (2002), the *F* statistic is robust with regard to this assumption because non-normality affects the Type I error rate only slightly.

The results of the repeated measures ANOVA (see Table 2) were significant, (F [6, 990] = 618.64, $p < .001$; partial η squared = 0.79) suggesting that there were differences among the seven motivational orientations held by the distance education participants. Post hoc pairwise comparisons (see Table 3) were conducted to assess where the differences occurred.

The results showed that students' motivational orientation of professional advancement (*M* = 19.71, *SD* = 3.43) was significantly higher than social contact (*M* =

7.15, SD = 2.31), social stimulation (M = 7.41, SD = 2.12), family togetherness (M = 7.64, SD = 2.03), communication improvement (M = 7.67, SD = 2.79), educational preparation (M = 9.80, SD = 3.22), and cognitive interest (M = 13.87, SD = 4.63).

It also was shown that the motivational orientation, cognitive interest, was significantly higher than social contact, social stimulation, family togetherness, communication improvement, and educational preparation. The students' motivational orientation of educational preparation was found to be significantly higher than social contact, social stimulation, family togetherness, and communication improvement. There was no significant difference shown between the motivational orientations of social contact, social stimulation, family togetherness and communication improvement. Hypothesis number one stated that professional advancement would be the most influential orientation, and it was accepted.

Table 2

Repeated Measures ANOVA for Seven Motivational Orientations

Factor	F (6, 990)	p	Partial η Squared	Power
Motivational Orientations	618.64	.001	0.79	1.00
Error	(5.98)			

Note. Number in parenthesis represents the mean square for error.

Table 3

Means and Standard Deviations of Motivational Orientations

Motivational Orientation	M	SD
Professional advancement	19.71_a	3.43
Cognitive interest	13.87_b	4.63
Educational preparation	9.80_c	3.22
Communication improvement	7.67_d	2.79
Family togetherness	7.64_d	2.03
Social stimulation	7.41_d	2.12
Social Contact	7.15_d	2.31

Note. Means with the same subscript are not significantly different at $p < .05$

Research Question 2

> *Do differences exist in the expressed motivational orientations of male and female graduate students in distance education programs?*

To examine research question two, a MANOVA was conducted to determine if there were differences on the seven motivational orientations (communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest) by gender (male versus female). Normality was assessed with seven Shapiro Wilk tests, all of which were significant, violating the assumption of normality. However, according to Stevens (2002), the *F* statistic is robust with regard to this assumption because non-normality affects the Type I error rate only slightly.

The results of the MANOVA were not significant, F (7, 158) = 1.12, p = .354, suggesting that there were no simultaneous differences on the seven factors by gender. Results of the individual ANOVAs are presented in Table 4. Means and standard deviations are presented in Table 5. The null hypothesis for research question two was accepted.

Table 4

ANOVAs for the Seven Motivational Orientations by Gender

Factor	F (1, 164)	p	Partial η Squared	Power
Communication improvement	0.67	.414	0.00	0.13
Social contact	0.44	.510	0.00	0.10
Educational preparation	0.05	.829	0.00	0.06
Professional advancement	1.54	.216	0.01	0.24
Family togetherness	3.60	.059	0.02	0.47
Social stimulation	0.10	.756	0.00	0.06
Cognitive interest	0.78	.377	0.01	0.14

Table 5

Means and Standard Deviations of Motivational Orientations by Gender

Motivational Orientation	Male ($n = 38$)		Female ($n = 128$)	
	M	*SD*	*M*	*SD*
Communication improvement	8.00	3.14	7.58	2.68
Social contact	7.37	2.62	7.09	2.22
Educational preparation	9.89	3.41	9.77	3.18
Professional advancement	20.32	3.02	19.53	3.53
Family togetherness	8.18	2.85	7.48	1.70
Social stimulation	7.32	2.12	7.44	2.12
Cognitive interest	13.29	4.74	14.05	4.60

Research Question 3

Do differences exist in the expressed motivational orientations of distance education graduate students categorized into age groupings of 22-30, 31-44 and 45-59?

To examine research question three, a MANOVA was conducted to determine if there were differences on the seven motivational orientations (communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest) by age group (22-30, 31-44, versus 45-59). Normality was assessed with seven Shapiro Wilk tests, all of which were significant, violating the assumption of normality. However, according to Stevens (2002), the *F* statistic is robust with regard to this assumption because non-normality affects the Type I error rate only slightly.

The results of the MANOVA were significant, $F(14, 316) = 2.65$, $p < .001$, suggesting that there were simultaneous differences on the seven factors by age group (22-30, 31-44, vs. 45-59). The individual ANOVAs were then assessed. Univariate ANOVAs are presented in Table 6 and show significant differences in social contact by age group, professional advancement by age group, social stimulation by age group, and cognitive interest by age group.

Scheffe post hoc pairwise comparisons revealed that for social contact, 22-30 year olds ($M = 7.92$, $SD = 2.79$) scored significantly higher than 31-44 year olds ($M = 6.59$, $SD = 1.50$). For professional advancement, 22-30 year olds ($M = 20.62$, $SD = 3.16$) scored significantly higher than 45-59 year olds ($M = 18.62$, $SD = 3.94$). For social stimulation, 45-59 year olds ($M = 7.93$, $SD = 2.54$) scored significantly higher than 31-44 year olds ($M = 6.86$, $SD = 1.57$). Lastly, for cognitive interest, 22-30 year olds ($M = $

14.98, *SD* = 4.48) scored significantly higher than 31-44 year olds (*M* = 12.17, *SD* =

4.17). Means and standard deviations are presented in Table 7. Hypothesis number three

predicted that older students would rate cognitive interest higher than younger students,

and this was rejected.

Table 6

ANOVAs for the Seven Motivational Orientations by Age Group

Factor	F (2, 163)	p	Partial η Squared	Power
Communication improvement	0.56	.574	0.01	0.14
Social contact	5.15	.007	0.06	0.82
Educational preparation	1.14	.322	0.01	0.25
Professional advancement	4.25	.016	0.05	0.74
Family togetherness	1.45	.238	0.02	0.31
Social stimulation	4.39	.014	0.05	0.75
Cognitive interest	4.08	.019	0.05	0.72

Table 7

Means and Standard Deviations of Motivational Orientations by Age Group

Motivational Orientation	22-30 years (n = 52)		31-44 years (n = 69)		45-59 years (n = 45)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Communication improvement	7.90	2.68	7.41	2.72	7.82	3.02
Social contact	7.92_a	2.79	6.59_b	1.50	$7.11_{a,b}$	2.52
Educational preparation	9.88	3.26	9.39	2.96	10.31	3.54
Professional advancement	20.62_a	3.16	$19.74_{a,b}$	3.09	18.62_b	3.94
Family togetherness	8.02	2.21	7.39	1.79	7.58	2.15
Social stimulation	$7.69_{a,b}$	2.21	6.86_b	1.57	7.93_a	2.54
Cognitive interest	14.98_a	4.48	12.71_b	4.17	$14.38_{a,b}$	5.14

Note. Within the row means with the same subscript are not significantly different at $p < .05$

Interaction of gender and age. Further analysis was performed to examine interaction of gender and age group (22-30, 31-44, versus 45-59) of distance education participants. A two way MANOVA was conducted to assess if differences existed on the seven motivational orientations (communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest) by the interaction of gender and age group (22-30, 31-44, versus 45-59). Normality was assessed with seven Shapiro Wilk tests, all of which were significant, violating the assumption of normality. However, according to Stevens (2002), the F statistic is robust with regard to this assumption because non-normality and inequality of variance affects the Type I error rate only slightly if the group sizes are similar.

The results of the MANOVA for the interaction of gender and age group were not significant, $F (14, 308) = 1.09$, $p = .370$, suggesting that simultaneous differences did not exist on the seven factors by the interaction of gender and age group. Individual ANOVAs are presented in Table 8. Means and standard deviations by gender and age group are presented in Table 9.

Table 8

ANOVAs for the Seven Motivational Orientations by Gender x Age

Factor	F (2, 160)	p	Partial η Squared	Power
Communication improvement	1.53	.219	0.02	0.32
Social contact	0.30	.743	0.00	0.10
Educational preparation	1.54	.218	0.02	0.32
Professional advancement	1.17	.313	0.01	0.25
Family togetherness	2.27	.106	0.03	0.46
Social stimulation	0.20	.815	0.00	0.08
Cognitive interest	0.22	.806	0.00	0.08

Table 9

Means and Standard Deviations of Motivational Orientations by Gender x Age

		Male		Female	
Motivational Orientation	Age Group	*M*	*SD*	*M*	*SD*
Communication improvement	22-30	9.18	3.37	7.56	2.40
	31-44	7.70	3.21	7.29	2.52
	45-59	7.00	2.24	7.97	3.15
Social contact	22-30	8.36	3.59	7.80	2.58
	31-44	6.65	1.69	6.57	1.43
	45-59	7.86	2.85	6.97	2.48
Educational preparation	22-30	10.36	2.91	9.76	3.37
	31-44	8.90	3.24	9.59	2.84
	45-59	12.00	3.92	10.00	3.43
Professional advancement	22-30	21.82	2.44	20.29	3.28
	31-44	19.55	3.00	19.82	3.15
	45-59	20.14	3.44	18.34	4.00

Family togetherness	22-30	9.45	3.42	7.63	1.61
	31-44	7.40	2.52	7.39	1.43
	45-59	8.43	2.30	7.42	2.11
Social stimulation	22-30	8.00	2.57	7.61	2.13
	31-44	6.80	1.82	6.88	1.48
	45-59	7.71	2.06	7.97	2.64
Cognitive interest	22-30	15.09	5.47	14.95	4.25
	31-44	11.95	4.20	13.02	4.16
	45-59	14.29	4.42	14.39	5.32

Research Question 4

Do differences exist in the expressed motivational orientations of distance education graduate students based on their academic program?

In order to examine research question four a MANOVA was conducted to determine if there were differences on the seven motivational orientations (communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest) by participants' academic program (business, education, nursing, versus other). Normality was assessed with seven Shapiro Wilk tests, all of which were significant, violating the assumption of normality. However, according to Stevens (2002), the *F* statistic is robust with regard to this assumption because non-normality and inequality of variance affects the Type I error rate only slightly if the group sizes are similar.

The results of the MANOVA were significant for the main effect of academic program, $F (21, 474) = 1.88$, $p <.01$, suggesting simultaneous differences occurred in the seven motivational orientations by academic program (business, education, nursing, versus other). Univariate ANOVAs are presented in Table 10 and reveal significant differences exist on social contact, educational preparation, and social stimulation.

Scheffe post hoc tests were conducted to examine where mean differences lie and revealed that for social contact, others ($M = 8.91$, $SD = 2.91$) had a significantly larger mean than education ($M = 6.88$, $SD = 2.13$). It also revealed that for social stimulation, others ($M = 8.55$, $SD = 2.02$) had a significantly larger mean than education ($M = 7.13$, $SD = 2.08$). Means and standard deviations for the seven factors by field of study are presented in Table 11. The null hypothesis for question number four was rejected.

Table 10

ANOVAs for Seven Motivational Orientations by Academic Program

Factor	F (4, 161)	p	Partial η Squared	Power
Communication improvement	0.62	.601	0.01	0.18
Social contact	3.77	.012	0.07	0.81
Educational preparation	3.03	.031	0.05	0.71
Professional advancement	1.48	.222	0.03	0.39
Family togetherness	0.03	.992	0.00	0.06
Social stimulation	3.42	.019	0.06	0.76
Cognitive interest	1.65	.180	0.03	0.43

Table 11

Means and Standard Deviations of Motivational Orientations by Academic Program

Motivational Orientation	Academic Program	*M*	*SD*
Communication improvement	Business	7.83	2.62
	Education	7.63	2.80
	Nursing	7.38	2.13
	Other	7.36	2.62
Social contact*	Business	7.50	3.06
	Education	6.88	2.13
	Nursing	7.17	2.16
	Other	8.91*	2.91
Educational preparation	Business	8.33	2.42
	Education	9.87	3.18
	Nursing	9.21	3.10
	Other	11.09	3.56
Professional advancement	Business	21.25	3.02
	Education	19.37	3.30
	Nursing	20.14	4.13
	Other	19.91	2.88

Family togetherness	Business	7.50	2.28
	Education	7.67	2.19
	Nursing	7.59	1.59
	Other	7.36	1.21
Social stimulation*	Business	7.67	1.97
	Education	7.13	2.08
	Nursing	7.66	2.02
	Other	8.55*	2.02
Cognitive interest	Business	13.25	4.39
	Education	13.75	4.96
	Nursing	13.41	3.44
	Other	15.91	3.56

* For social contact and social stimulation, other > education.

Research Question 5

Do differences exist in the expressed motivational orientations of distance education graduate students based on their preferred method of course delivery?

To examine this question, a MANOVA was conducted to assess if simultaneous differences existed on the seven motivational orientations (communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest) by their preferred distance method (face-to-face at remote campus, online course delivery, versus web conferencing) for distance learners. Normality was assessed with seven Shapiro Wilk tests, all of which were significant, violating the assumption of normality. However, according to Stevens (2002), the *F* statistic is robust with regard to this assumption because non-normality and inequality of variance affects the Type I error rate only slightly if the group sizes are similar.

The results of the MANOVA for the main effect of preferred method were not significant, $F (14, 316) = 1.23$, $p = .189$, suggesting that there were no simultaneous differences on the seven factors by preferred distance method (face-to-face at remote campus, online course delivery, versus web conferencing) for distance learners. Results of the univariate ANOVAs are presented in Table 12. Means and standard deviations are presented in Table 13. The hypothesis, students who prefer face-to-face courses will score higher on the social contact orientation, was rejected.

Table 12

ANOVAs for Seven Motivational Orientations by Distance Method

Factor	F (2, 163)	p	Partial η Squared	Power
Communication improvement	1.16	.317	.01	.25
Social contact	1.46	.236	.02	.31
Educational preparation	2.18	.116	.03	.44
Professional advancement	.07	.929	.00	.06
Family togetherness	.21	.808	.00	.08
Social stimulation	2.55	.081	.03	.50
Cognitive interest	1.47	.233	.02	.31

Table 13

Means and Standard Deviations of Motivational Orientations by Distance Method

Motivational Orientation	Preferred Distance Method	M	SD
Communication improvement	Online	7.65	2.76
	Face-to-face	8.42	3.39
	Web-conference	7.00	2.07
Social contact	Online	7.04	2.01
	Face-to-face	8.00	3.59
	Web-conference	7.06	2.72
Educational preparation	Online	10.01	3.08
	Face-to-face	9.63	4.45
	Web-conference	8.25	2.27
Professional advancement	Online	19.66	3.55
	Face-to-face	19.79	2.57
	Web-conference	20.00	3.44
Family togetherness	Online	7.59	1.92
	Face-to-face	7.89	2.64
	Web-conference	7.75	2.27
Social stimulation	Online	7.26	1.94

	Face-to-face	8.42	3.06
	Web-conference	7.44	1.93
Cognitive interest	Online	14.00	4.58
	Face-to-face	14.53	4.88
	Web-conference	12.06	4.64

Ad Hoc Analysis

There were 166 respondents to the survey who met the definition of distance education for this study, and there were an additional 42 students who completed the survey and did not plan to complete the majority of their program in distance education classes. In order to compare motivational orientations between the distance group and the group labeled here as traditional students, a MANOVA was conducted to assess if differences existed on the seven motivational orientations (communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest) by student type (distance versus traditional). Normality was assessed with seven Shapiro Wilk tests, all of which were significant, violating the assumption of normality. However, according to Stevens (2002), the F statistic is robust with regard to this assumption because non-normality and inequality of variance affects the Type I error rate only slightly if the group sizes are similar.

The results of the MANOVA were significant for the main effect of student type on the seven factors, $F (7, 200) = 2.95, p < .05$, suggesting simultaneous differences on the seven factors occurred by student type (distance versus traditional). Univariate ANOVAs are presented in Table 14 and means and standard deviations are presented in Table 15. Results revealed that traditional participants had significantly higher motivational orientations in communication improvement ($M = 8.83, SD = 2.77$), social contact ($M = 8.43, SD = 3.12$) and educational preparation ($M = 11.07, SD = 3.60$) than did distance education students. There was no hypothesis generated for the ad hoc analysis.

Table 14

ANOVAs for Seven Motivational Orientations by Student Type

Factor	F (1, 206)	p	Partial η Squared	Power
Communication improvement	5.81	.017	.03	.67
Social contact	8.79	.003	.04	.84
Educational preparation	5.01	.026	.02	.61
Professional advancement	0.96	.330	.01	.16
Family togetherness	0.29	.594	.00	.08
Social stimulation	1.54	.216	.01	.24
Cognitive interest	3.52	.062	.02	.46

Table 15

Means and Standard Deviations of Motivational Orientations by Student Type

Motivational Orientation	Distance ($n = 166$)		Traditional ($n = 42$)	
	M	*SD*	*M*	*SD*
Communication improvement*	7.67	2.79	8.83*	2.77
Social contact*	7.15	2.31	8.43*	3.12
Educational preparation*	9.80	3.22	11.07*	3.60
Professional advancement	19.71	3.43	19.12	3.81
Family togetherness	7.64	2.03	7.45	1.97
Social stimulation	7.41	2.12	7.86	1.97
Cognitive interest	13.87	4.63	15.38	4.76

*Traditional students > distance education students at $p < .05$

Chapter 5

Discussion

Motivation is significant to the success of college students and increases the probability that they will seek to overcome barriers in their pursuit of an education (Simpson, 2003). Students who can sustain motivation increase their chances of successfully completing a degree program (Holder, 2007). Research has shown that motivation to learn and seek continuing education is influenced by demographic variables as well as life circumstances (Chu, Hsieh, & Chang, 2007). Boshier (1971) proposed that adults were motivated to participate in education by both internal and external stimuli and that education was an attempt to regain or maintain a sense of equilibrium.

Boshier's (1991) EPS-A was designed to identify reasons that adults chose to participate in education. The instrument measures ratings of seven motivational orientation factors that influence adults to pursue continued learning. This study utilized the EPS-A to investigate the motivational influences for Ball State University distance education graduate students. Descriptive and inferential analyses were used to explore whether differences existed by gender, age groups, academic program, preference of delivery method and type of student.

Motivational Orientations

In this study, 166 distance education students identified professional advancement as the most influential motivational orientation for pursuing their advanced educational

outcomes. Previous studies of adult learners have also found professional advancement to be among the most influential motivators regardless of age or gender (Fujita-Starck, 1996; Morstain & Smart, 1974; Wolfgang & Dowling, 1981). This finding is also consistent with studies that have shown earning power (Cosman-Ross & Hiatt-Michael, 2005) and career development (O'Connor & Cordova, 2010) to be major reasons for returning to school. Collectively, these studies show that career concerns are extremely influential in students' decisions to pursue graduate degrees.

Moreover, in the majority of studies, adult students rate career and employment factors as influential regardless of the type of educational pursuit. Populations including graduate students (Carlson, 1999; Chu, Hsieh, & Chang, 2007; de Oliveira Pires, 2007; O'Connor & Cordova, 2010), undergraduate students (Cosman-Ross & Hiatt-Michael, 2005; Morstain & Smart, 1974; Wolfgang & Dowling, 1981), and continuing education students (Fujita-Starck, 1996) have reported professional advancement or increased earning as a reason for participation. These findings indicate that adults in all levels of education recognize that global economic conditions and the constant evolution of technology and science necessitate pursuit of continued learning (Chu, Hsieh, & Chang, 2007). In order to advance in a chosen profession, change career goals later in life, or remain competitive in a current career path, adults must take the initiative to seek out independent learning and developmental opportunities.

Cognitive interest was found to be the next most influential motivational orientation by the graduate students in this study. This result is consistent with previous research showing that adults pursue continuing education for the sake of learning, for intellectual pursuit, and for life-long learning (Fujita-Starck, 1996; Garst & Ried, 1999;

Kim & Merriam, 2004; Morstain & Smart, 1974; Wolfgang & Dowling, 1981).

Similarly, other studies have reported the joy of learning, intellectual stimulation

(Mulenga & Liang, 2008), enjoyment of their courses, curiosity, personal fulfillment, and

intellectual interest (Carlson, 1999) as reasons for pursuing graduate degrees. In a study

of 440 graduate students in Portugal (de Oliveira Pires, 2009), intellectual pursuit and

acquiring knowledge were rated as more important than career or professional objectives.

Perhaps changes in Portugal's higher education system allowing increased access to

college and post graduate courses have made learning for the sake of learning hold more

value than professional advancement for individuals who otherwise would have limited

access to education.

Educational preparation was rated as the third most influential motivational

orientation for the study participants; however, it was seen as significantly less important

than either professional advancement or cognitive interest. Of more interest, perhaps,

were the motivational orientations rated as least important by the participants: social

contact, defined as participation in education because the student enjoys learning with

others and wants to be part of a group; and social stimulation, defined as participation in

education to escape from routine, alleviate boredom, or provide a diversion from social

problems. Other studies of adult students have similarly found that social expansion,

escape from routine, and meeting people were rated as less influential than other

motivators (Chu, Hsieh, & Chang, 2007; Cosman-Ross & Hiatt-Michael, 2005; Garst &

Ried, 1999).

Indeed, it is not surprising that social contact and social stimulation would be

rated as less important motivators in a population of students who have chosen distance

education as their primary method of course delivery. Although there is often a presence of community in online and distance courses, independent and self-directed learning are keys to success in these programs (Stevens & Switzer, 2006; Wighting, Liu, & Rovai, 2008). Furthermore, in a population that highly values education as a means of career advancement, it may be expected that social motivations would be ranked at the lower end of the spectrum. Graduate school is a costly endeavor in both money and time and individuals focused on their career may choose not to make this investment for social reasons.

Although there were significant findings in the data analyses of subgroups, as expected, there were no gender differences in the ranking of professional advancement and cognitive interest as the most influential motivators for pursuing higher education. Despite the fact that an early study found female students rated cognitive interest significantly higher than males (Morstain & Smart, 1974), more recent studies have shown motivational orientation does not differ for men and women (de Oliveira Pires, 2009; Mulenga & Liang, 2008; Yukselturk & Bulut, 2009). In a study investigating why women, specifically, chose to enter higher education (Ford, 1999) employment needs were rated as the strongest motivation. The participants reported that they believed furthering their education would aid them in getting promoted at their current job, finding a job, or finding a better job.

These research findings align with changes in both higher education and the professional workforce in the last three decades. The Bureau of Labor Statistics (2009) reported that the number of women in the workforce with a college degree tripled from 1970 to 2008. In addition, in 2008, roles in management, professional, and related

occupations were split almost evenly between men and women in the United States. These numbers support the finding that career advancement and professional concerns would be rated highly for both females and males. As the educational requirements for professional advancement increase and entry-level education for many fields escalate, career development will necessitate higher or continuing education for both genders.

In contrast to expectations, older students did not report cognitive interest to be a more influential motivator than younger students. In fact, the youngest students scored highest on cognitive interest. These findings are in conflict with previous research that showed students in older age groups rated factors of intellectual stimulation, learning for the sake of learning, and learning as a life philosophy as their most significant motivations in seeking education (de Oliveira Pires, 2009; Kim & Merriam, 2004; Mulenga & Liang, 2008; Wolfgang & Dowling, 1981). In a study of students over 55, both males and females rated intellectual stimulation as the primary motivator for seeking education (Mulenga & Liang, 2008).

The disparity in the results of this study may be explained by differences in the sample. The majority of students in previous studies were in undergraduate and continuing education programs, whereas this study was exclusively made up of graduate students. In addition, only seven participants in this study were over the age of 55 whereas in previous studies the ranges for older students were over the age of 55 or 65. The oldest student in this sample of distance education students was 59, which is younger than the traditional retirement age of 65. Thus, the oldest students in this sample were still pre-retirement age and were likely seeking graduate education for promotion in their careers or a mid-life career change.

Also inconsistent with previous research was that students aged 22-30 rated social contact as a higher motivation than older age groups. These results conflicted with findings from two previous studies where younger students reported they were less likely to seek social experiences from education than older students (Chu, Hsieh, & Chang, 2007; Taylor & House, 2010). This disparity may be explained by the distance education status of this sample as opposed to the on-campus students surveyed in other studies. As seen in the results of this research, social contact was rated as the least influential motivational orientation for all distance education participants. Due to the nature of distance education, students who value social contact would be more likely to choose an alternate method of course delivery. Even though younger students in this study rated social contact higher than the other age groups, it was still among their lowest rated motivators, suggesting they did not view this as a substantial influence overall.

Despite the sample differences, in keeping with previous research, the motivation of professional advancement for 22-30 year olds was the highest rated for any age group and was significantly higher than for 44-59 year olds. This is consistent with a study by Chu, Hsieh, and Chang (2007) where adults under 30 rated professional advancement significantly higher than other participants. Similarly, in a study by Taylor and House (2010), younger college students rated extrinsic motivations such as job and career prospects higher than intrinsic motivations such as self-development. These results suggest that younger students who may not have entered the job market or are early in their career recognize the importance of education in positioning themselves in a competitive market.

Additionally, in the analyses of age subgroups, the 45-59 year olds rated social stimulation as significantly higher than the 31-44 year olds. These results are not surprising when considering the traditional experiences of individuals in these age groups. Many adults are busy raising their families between the ages of 31-44 while individuals in the 45-59 years group may have more time to participate in activities and educational pursuits for social reasons.

Results for the individual academic programs revealed that all fields of study scored professional advancement as the highest motivational orientation and cognitive interest as the second most influential factor. These findings are consistent with a previous study of Masters level students in education courses where career development and promotion were reported as the two primary reasons for enrollment and academic development was rated third (Green, 2010). In other studies of students in education programs, however, more importance was placed on improving classroom techniques and exploring educational issues than was given to career advancement (Powell, Terrell, Furey, & Scott-Evans, 2003). Likewise, in a study of motivations of teachers in a web-based development program, enhancement of teaching practice was rated as the most important motivator with occupational promotion and external expectations ranked in second and third place (Kao, Wu, & Tsai, 2010).

Previous research on health care professionals is consistent with findings from the nursing respondents in this study. In a previous study of students in allied health fields, it was found that extrinsically related motivations were most often reported as reasons for persistence. The primary motivations for enrollment included getting a job and becoming professionally successful (Ballmann & Mueller, 2002). In a study of nurses in a Masters

level program, reasons for seeking a degree included not only advancement of the individuals in a professional capacity, but also the advancement of nursing as a practice and a profession. These students viewed advanced degrees as a requirement for success in nursing leadership roles (Gerrish, McManus, & Ashworth, 2003).

Although there were a fewer number of business students in this study, they too reported motivations consistent with business students in previous research. Page, Bevelander, and Pitt (2004) reported that for business students, a Masters of Business Administration (MBA) was no longer viewed as a means to get ahead, but as an entry level degree for anyone seeking to rise to the executive level. In their study of students in an MBA program, reported motivations for enrollment included improvement of career and increased earning capacity. Secondary reasons were reported as an enhancement in decision-making skills and improved leadership. In an additional study of students seeking their MBA, learning practical management skills was rated as the primary reason for pursuit of the degree and career enhancement was ranked as the second most important motivator (Thompson & Gui, 2000).

The academic programs of education, nursing and business may appear to be more dissimilar than alike, but student motivations for professional development have been shown to be comparable. A teacher with an initial license may choose to obtain a certification or specialization to enhance their expertise, broaden their career opportunities, or increase their earning potential. Likewise, a nurse who hopes to expand her practice may choose to pursue an advanced degree in order to enter nursing leadership, become a nurse practitioner, or a nurse educator. For business students, a bachelor degree may no longer be sufficient to advance in their chosen career, and they

must obtain an advanced degree in order to be considered for executive positions. Individuals in all fields must achieve an advanced level of skill and knowledge to increase competency in their chosen professions and remain competitive in the job market.

In addition to the 166 respondents who met the definition of distance education student in this study, 42 additional participants who were enrolled in distance education courses completed the survey. These respondents were categorized as traditional students for the purpose of this study. Statistical analyses showed that traditional students had significantly higher scores for the motivational orientations communication improvement, social contact, and educational preparation than did distance education students.

The difference in scores for communication improvement may be explained by the habitual communication practices of distance education students. Students enrolled in online courses may never be required to verbally communicate with their classmates or instructors. Additionally, students who have taken multiple Internet courses grow accustomed to the written exchange of ideas and may not feel that communication improvement is a need or motivation for persistence in their programs.

The significant finding for the motivational orientation, social contact, aligns with a previous study of college students where participants who preferred traditional learning environments were motivated by engagement and live discussions (Clayton, Blumberg, & Auld, 2009). As previously discussed, social contact has not historically been rated as an influential motivation for distance education students. Although some courses may be taken face-to-face and online communities are often present, distance education is by

nature a less social method of course delivery (Stevens & Switzer, 2006; Wighting, Liu, & Rovai, 2008).

Although it is important to note the differences between traditional and distance education students, it is also essential to note the similarities. In particular, both groups of students ranked professional advancement and cognitive interest as the most influential motivational orientations. Although their choice of delivery method may differ, the primary reasons for pursuit of continued education are equivalent for both groups of graduate students.

Limitations

This study utilized a purposive sample of graduate students enrolled in distance education courses at a state university which will limit the degree to which results can be generalized. Data from the responses of Ball State University students may not prove applicable to distance education graduate students from other universities. Additionally, the demographic composition of this sample included a substantial percentage of education students, which may have produced results that are less pertinent to other fields of study. While there is no guarantee that non-responders to this study would report similar findings, these results can be utilized as a basis for continued research into the motivational orientations of graduate students at this and other universities.

Another potential limitation of this study is the researcher, who has been a distance education graduate student at Ball State University for five years. This affiliation could potentially result in inadvertent researcher bias. However, as is the case with this study, selection of a research problem is often sparked by experiences in the

researcher's life (Hesse-Biber & Leavy, 2006). In this study, the researcher made every attempt to maintain objectivity and not bring her own attitudes and values into the study.

Recommendations

Several recommendations emerge from the review of related research and findings in this study. Administrators and faculty at higher education institutions may use these findings in their efforts to recruit new students, plan programs, and implement strategy for teaching and delivery methods. At the heart of successfully recruiting and retaining adult students is an understanding of their motivations, life circumstances, and expectations. University leaders must recognize their customers' interests, needs, and barriers. Insight into the adult student should not be based on assumptions and supposition, but should be developed through research. "In this time of rapid change, we need more than ever before the focused, detail-rich information that research can provide" (Brown, 2004, p. 53).

Studies have shown that age and gender do not predict attrition of distance education students. In order for adults to persist in educational programs, they require support from their families, educational institutions, and employers (Davis & Elias, 2003; Park & Choi, 2009). While university administrators and faculty may not be able to control external factors impacting attrition, it is essential that programs be strategically designed to encourage persistence. Even though external factors are reported as the primary reasons for withdrawal of adult students, it should not be assumed that nothing can be done to prevent attrition. Dissatisfaction with a course or institution is also a common reason for non-completion, and if these circumstances occur in addition to

external pressures, there is a higher probability that a student will not continue in their program (Brown, 2004; McGivney, 2004).

In order to maintain engagement of adult students in distance education and provide programs that are relevant to their needs, educators should consider the principles of adult learning theory. The andragogy model of adult learning proposes that adults feel the need to be self-directed and involved in their learning situations and bring varied life experiences to their educational pursuits. Additionally, adults are goal oriented in their learning and their educational interests lie in addressing real life situations and problems (Knowles, 1973; Knowles & Associates, 1984; Knowles, Holton III, & Swanson, 1998). Institutions seeking to recruit traditional and distance education students with a primary motivation of professional advancement should keep these principles in mind.

Application of the andragogy model could include implementation of student suggestions from previous research of adults working full time while attending a university. These students reported flexibility in course scheduling, variable attendance requirements, alternative ways of learning, and changing the historical definition of a semester as ways to accommodate non-traditional students (Lyons, 2006). An additional approach for promoting retention is to provide potential students access to course syllabi and calendars prior to enrollment. This action would permit students to assess whether course completion was a realistic expectation, allowing them to forgo enrollment instead of dropping a class in the first week. Furthermore, in programs where adults are returning to school to advance their careers or enhance their job prospects, institutions should design curricula that value students' previous experience and build on their

existing knowledge. Courses should be structured to allow students to incorporate their professional experiences into assignments and discover solutions to real life issues.

Adult learning theory is also applicable to students who consider cognitive interest to be an influential motivational factor. Adult distance education students possess a self-directed and independent learning style and have powerful intrinsic motivation to learn (Shroff & Vogel, 2009; Wighting, Liu, & Rovai, 2008). Students who profess an interest in the pursuit of learning for learning's sake may be a logical match for self-directed education or independent study opportunities. These students may also benefit from flexible semesters, where completion of a course is based on the timeline of the learner and not the institution.

Implications for educational programs may also be found in the motivational orientations that were given the lowest ratings by these participants. Establishing social contacts and gaining social stimulation were the factors that earned the smallest scores in this study of distance education students. These findings may support an increased offering of courses through the Internet or other methods of delivery that do not have a significant social component. While these results were not unexpected from distance education students, other studies have shown that this is a consistent finding with motivational orientations for all adult degree-seeking students (Bellon & Oates, 2002; Robyler, 2000; Wolfgang & Dowling, 1981).

Recommendations for further research into the motivational orientations of graduate students include identification of specific needs for professional advancement of both traditional and distance education students. The results of this study revealed the primary motivation for both groups was the same, and further research should incorporate

findings from both types of students. Individuals from different professions may define professional advancement in diverse ways, and future research should focus on the requirements and implications for graduate education in specific fields. In order to provide strategic value in a competitive job environment, universities should understand the changing entry-level requirements in particular professions as well as the skills and knowledge students require to advance and be successful in their chosen careers.

The focus of this study was to understand why students chose to participate in graduate distance education programs, and future research should also concentrate on how to retain the student once they are enrolled. Institutions should endeavour to comprehend how the economic status and socio-cultural environment of students impact the reasons they choose to persist in higher education. In order to be proactive in the retention of these students, institutions must stay apprised of the external factors that may influence the future of distance education. They should also investigate means to ameliorate the external pressures facing adults and transform distance education programs to address the needs of these non-traditional students.

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Appendix A

Approval Letter from Office of Extended Education

June 3, 2010

To Whom It May Concern

This letter is to show the School of Extended Education's (SEE) support for the research proposed by Sandra Nolot.The School of Extended Education will send the initial e-mail w/ survey link to off campus students enrolled in graduate distance education courses along with a follow-up to be sent two weeks later.

Because SEE will be distributing the emails, the identity of the students will not be compromised. If you have questions regarding our role in this process, please feel free to contact me via email at jawhitesel@bsu.edu or by phone at 765-285-7200.

Sincerely,

Joel A. Whitesel
Associate Director of Online and Distance Education Programs
School of Extended Education
Ball State University

Appendix B

Introductory E-mail

Subject: Research Survey: Motivations of Graduate Students in Distance Education Courses

http://www.surveymonkey.com/s/NTWH6JW

Dear Graduate Students,

I'm a student at Ball State University enrolled in the Adult, Higher, and Community Education program. This e-mail is to request your participation in a dissertation research project I will be conducting in October and November, 2010. The title of the project is "Exploring the Motivational Orientations of Graduate Students in Distance Education Programs."

The purpose of this study is to investigate the reasons why adults taking courses via the Internet, web-conferencing, or outside the primary university campus setting are enrolled in their graduate programs. This research will be conducted through a web-based survey, and responses will remain anonymous.

To participate in this survey, please click on the link at the top of the page or copy/paste the URL into your address line and enter your anonymous responses into the Survey Monkey® tool. Please feel free to contact me with any questions concerning this study or the survey. Thank you in advance for your assistance and participation in this research.

Sincerely,

Sandra Nolot
sknolot@bsu.edu

Appendix C

E-mail Correspondence with EPS-A Author

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Date: Tue,5 Jan 2010 08:53:13 -0500
From: snolot@lilly.com
Subject: Contacting the Publisher for EPS
To: Roger Boshier <rboshier@interchange.ubc.ca>


Dear Dr. Boshier,


I had contacted you previously about using the EPS in my dissertation
research on graduate students.


I have not heard from the publisher and have not been able to
find contact information for them. I am seeking a copy of the EPS and
permission to use it electronically.


Thank you in advance for any help you can provide me.


Best regards,


Sandra Nolot


Roger Boshier <rboshier@interchange.ubc.ca>


01/16/2010 08:47 PM


 Sandra Nolot <NOLOT_SANDRA@LILLY.COM>


 Re: Contacting the Publisher for the EPS


Sandra ... I am in New Zealand.
To expedite this I will send you an electronic version of the EPS when I get
back to my laptop. Will be in the next 24 hours or so.


Roger.Boshier@ubc.ca
```

Sandra Nolot/AM/LLY

01/22/2010 11:25 AM

To: Roger Boshier rboshier@interchange.ubc.ca

Subject: Re: Contacting the Publisher for the EPS

Dr. Boshier,

I would appreciate the electronic copy to expedite my project. I am planning to

use an electronic survey tool.

Thank you, Sandra Nolot

Appendix D

EPS-A Items and their Associated Factor Loadings

<u>EPS-A Item</u>   <u>Factor Loadings</u>

Factor I Communication Improvement

To improve language skills	.81
To speak better	.79
To learn another language	.77
To write better	.74
To help me to understand what people are saying and writing	.69
To learn about the usual customs	.61

Factor II Social Contact

To become acquainted with friendly people	.53
To have a good time with friends	.66
To meet different people	.73
To make friends	.78
To make new friends	.81
To meet new people	.83

Factor III Educational Preparation

To make up for a narrow previous education	.53
To get education I missed earlier in life	.59
To acquire knowledge to help with other educational courses	.60
To prepare for further education	.71
To do courses for another school or college	.79
To gain entrance to another school or college	.80

Factor IV Professional Advancement

To secure professional advancement	.59
To achieve an occupational goal	.63
To prepare for getting a job	.64
To give me higher status in my job	.67
To get a better job	.74
To increase my job competence	.81

Factor V Family Togetherness

To get ready for changes in my family	.40

To share a common interest with my spouse	.40
To keep up with others in my family	.56
To keep up with my children	.82
To answer questions asked by my children	.83
To help me talk with my children	.83

Factor VI Social Stimulation

To overcome the frustration of day to day living	.70
To get away from loneliness	.65
To get relief from boredom	.63
To get a break in the routine of home or work	.63
To do something rather than nothing	.61
To escape an unhappy relationship	.54

Factor VII Cognitive Interest

To get something meaningful out of life	.57
To acquire general knowledge	.58
To learn just for the joy of learning	.59
To satisfy an enquiring mind	.59
To seek knowledge for its own sake	.60
To expand my mind	.63