ABSTRACT OF CAPSTONE

Kathryn Miller

The Graduate School

Morehead State University

April 16, 2015

MOTIVATING FACTORS AND BARRIERS TO ONLINE FACULTY PROFESSIONAL DEVELOPMENT

Abstract of capstone

A capstone submitted in partial fulfillment of the
requirements for the degree of Doctor of Education in the
College of Education
at Morehead State University

By

Kathryn L. Miller

Prestonsburg, Kentucky

Committee Chair: Dr. Lenora Jean Justice, Assistant Professor

Morehead, Kentucky

April 16, 2015

ABSTRACT OF CAPSTONE

MOTIVATING FACTORS AND BARRIERS TO ONLINE FACULTY PROFESSIONAL DEVELOPMENT

The purpose of this study is to examine the motivating factors and barriers for faculty in a small, rural community college in eastern Kentucky to take online professional development. Using a survey from previous research, the participants were surveyed with 40 questions to solicit data about motivations, barriers and demographic information. A Likert scale was used for 33 of the questions, while two open-response questions were added for the qualitative analysis. The last 5 questions were to solicit demographic information from the participants.

An exploratory factor analysis was run on the coded responses, and one factor including four components emerged from the 33 questions. The four survey items were directly related. All four components were intrinsic motivators that included: (1) Professional development is useful to my teaching career; (2) advantages of taking online professional development outweight the disadvantages; (3) online professional development helps make creating course content easier, and (4) taking online professional development can help improve my teaching performance. The open response question analysis of self-declared barriers included 36% of the respondents noting isolation, lack of interaction, and difficulty in getting questions answered in online professional development. Another 24% of the respondents stated problems

with lack of time to participate. The responses also reflected that 40% of the participants like the flexibility and accessibility of online professional development, while 12% of the respondents cited that funding associated with the professional development was a motivator.

The study suggests that intrinsic motvation, flexibility and accessibility are the main motivators for taking online professional development, while isolation and lack of interaction are the primary barriers. In other words, to increase faculty particpation in online professional development, value for the activity must be increased. Also, collaboration and communication among faculty members must be an integral part in the online professional development activty. Additionally, administrators must provide appropriate funding to participate in the online professional development as well as funding to implement innovations learned, and lastly, professional development coordinators should also make sure that the purpose of the online professional development activity is appropriate to increase knowledge in teaching and areas of expertise.

KEYWORDS: Professional Development, Distance Learning, Motivations, Barriers

_____
Candidate Signature

_____
Date

MOTIVATING FACTORS AND BARRIERS TO ONLINE FACULTY PROFESSIONAL DEVELOPMENT

By

Kathryn L. Miller

Approved by

Edna Schack Committee Member	Date
Christopher Daniel Committee Member	Date
Lenora J. Justice Committee Chair	Date
Christopher Miller Director of EdD	Date
Christopher Miller Department Chair	Date

RULES FOR THE USE OF CAPSTONES

Unpublished capstones submitted for the Doctor's degree and deposited in the Morehead State University Library are as a rule open for inspection, but are to be used only with due regard to the rights of the authors. Bibliographical references may be noted, but quotations or summaries of parts may be published only with the permission of the author, and with the usual scholarly acknowledgements.

Extensive copying or publication of the capstone in whole or in part also requires the consent of the Dean of the Graduate School of Morehead State University.

A library that borrows this dissertation for use by its patrons is expected to secure the signature of each user.

Name Date

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

CAPSTONE

Kathryn L. Miller

The Graduate School

Morehead State University

April 16, 2015

MOTIVATING FACTORS AND BARRIERS FOR FACULTY ONLINE PROFESSIONAL DEVELOPMENT

Capstone

A capstone submitted in partial fulfillment of the
requirements for the degree of Doctor of Education in the
College of Education
at Morehead State University

By

Kathryn L. Miller

Prestonsburg, Kentucky

Committee Chair: Dr. Lenora Jean Justice, Assistant Professor

Morehead, Kentucky

April 16, 2015

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

DEDICATION

This capstone is dedicated to my mom, Maudine Caudill. She was the finest lady that I ever met and also my biggest supporter. Although you are no longer on this earth, I still hear your words of encouragement every day. You are now, and always will be the wind beneath my wings. Despite the challenge, your encouragement along with my faith in God gets me through.

ACKNOWLEDGEMENTS

First, I would like to thank my Lord and Savior, Jesus Christ for saving my soul. You are the one that led me into this program and helped me to finish.

Secondly, I would like to thank my committee chair, Dr. Lenora Jean Justice. Without your help and guidance, I would never have made it this far. You were sent to Morehead State University to help me and others get through this process. I would also like to thank my committee, Dr. Edna Schack and Dr. Chris Daniel. Your input and advice has been a valuable resource through this journey. I deeply appreciate your time and commitment to this cause!

I would like to recognize the other faculty members at Morehead State University. It was under your watchful eyes that I was able to accomplish my dream! I would also like to recognize my cohort of graduate students (the Goonies) at Morehead State University in the Educational Technology Leadership program. I thank you for the encouragement you gave throughout every step of this journey. I wish you much success and happiness in accomplishing your dreams.

Lastly, I would like to thank my husband and family. Jeff, Shane, Heather, Danielle, Joshua and Molly, you are my inspiration for achieving. Thank you for the sacrifices you made so that I could excel in this program. I want to be the best person I can be. I love you!

TABLE OF CONTENTS

TABLES

FIGURES

Chapter 1

Introduction: Changing Demand for Online Courses

The growth of distance education has greatly affected community colleges. As the demand for distance education courses increases, colleges and universities are offering more classes online (Allen & Seaman, 2007; Higgins & Harreveld, 2013). Community responsive two-year colleges are quickly becoming the primary provider of online education because of their student-focused missions (Allen & Seaman, 2013).

Faculty need professional development to improve proficiency of teaching and quality of programs to meet the demands of distance education (Higgins & Harreveld, 2013). Faculty members have time and funding constraints when developing online classes (Van De Vord & Proge, 2012). Professional development can give faculty members the knowledge to use applications to create engaging and motivating content for courses. Online professional development provides the accessibility and flexibility that can meet the growing needs of faculty members. Researchers have identified barriers to taking online trainings or courses. This study will explore the barriers and motivating factors of participating in an online professional development.

Research Question

1. What are motivating factors and barriers that affect faculty participation in online professional development?

Purpose of Study

There are three purposes for this study. The first purpose is based on the hypothesis that faculty members with intrinsic motivation will be more likely to participate in an online professional development activity. According to Hardré (2012), community college faculty members are motivated by factors that are value-related and intrinsic and not by contextual or extrinsic factors. Bloom's (2005) research showed a strong relationship between motivation and organizational commitment. She illustrated that faculty or teachers who believe they play a significant role in a useful organization are more motivated to take advantage of opportunities for professional development.

The importance of the study is to understand differentiations in motivation to take online professional development so that measures can be taken to foster motivation in the future. The research will test whether there is a direct relationship between intrinsic motivation and taking an online professional development activity. Since professional development opportunities are migrating to the online venue, preparations to encourage faculty acceptance should begin during the migration.

The second purpose is to study the direct relationship between a positive attitude toward technology and motivation to take online professional development. According to Eliasa (2012), a relationship was found between attitudes toward technology and motivation. It is important to study the exact relationship between faculty attitudes toward technology in higher education and motivation to take online professional development. Results of the study can be used to find ways of increasing motivation to take online professional development in the future.

The third purpose of the research includes perceptions of administrative support having a high correlation with faculty motivation to take online professional development. According to Hardré (2012), faculty responses to how they perceive and interpret the workplace are implicitly related to administrative support and the alignment of institutional missions and goals with faculty needs and responsibilities.

Significance of Study

Distance education is a fast-growing method or mode of delivery for courses in higher education in United States (Chen, 2012). According to Allen and Seaman (2007), in 2006 about 35% of higher education institutions were offering complete programs online. As a result, faculty need to be continuously participating in professional development activities to create courses that foster student success in distance education. Online professional development can give faculty the flexibility and accessibility to learn new strategies and technologies to promote student success in their online and face-to-face courses. For example, Zirkle (2012) indicates that instructional design and communication strategies are closely related to student success.

A study of the factors, such as motivation and barriers that affect faculty taking online professional development, is vital to the success of online educational programs. According to Wagner and French, (2010), "Understanding factors involved in promoting and sustaining professional change have gained much support in educational literature. Professional and educational change to affect the success of students hardly ever takes place without professional development (Guskey, 2000).

Table 1-1. Defined Terms

Term	Definition
Barrier	For the purposes of this study, a barrier is anything that inhibits one from participating in professional development activities.(Wikipedia, 2015)
Distance Education	Distance Education includes courses delivered to sites at a distance using video, audio, or computer technologies, with both synchronous and asynchronous communication. (U.S. Center for Educational Statistics, 2002)
Distance or Online Learning	Distance/Online learning is the usage of technology to receive education at a distance (US Department of Education and Research, 1989).
Focus Group	A focus group is a research technique that collects data through group interaction on a topic determined by the researcher (Morgan, 1996).
Learning or Course Management System	A learning or courses management system is a software application, which acts as a medium to facilitate, document, track and report learning.(Watson, W. & Watson, S., 2007)
Multimedia Content	Multimedia content is engaging content that contributes to learning using video and sound (Roblyer & Schwier, 2003).
Professional Development	Professional development consists of activities intended to enhance institutional or individual capacities to serve and teach students (Alfano, 1993).
Online Professional Development	Professional development that uses distance education for the purpose of enhancing institutional or individual capacities to serve and teach students (Phu, Vien, Lan, & Cepero, 2014).
Web based Instruction	Web based instruction is online courses with at least 90% of their content being online (Allen and Seaman, 2009)

Motivation	Motivation is the process through which goal-focused activities are initiated and sustained (Schunk, Pintrich, and Meece, 2008).
Learning Theory	A learning theory encompasses principles which aim at explaining changes in individual performance, providing a set of instructional strategies, tactics, and techniques from which to select, and the foundation for how and when to choose and integrate the strategies (Baruque, 2004).

Chapter 2

Literature Review

Introduction

Distance education is growing along with the need for faculty to take professional development. The move toward online professional development is also growing. This literature review encompasses previous research and writings about identified motivation and barriers to online professional development programs.

Community College Background

William Rainey Harper, president of the University of Chicago, had a vision which ultimately created the community college movement in the late 1900's (Kane & Rouse, 1999). Germa Gymnasium was the model used during the creation, which featured the concept of a six year high school to teach preparatory materials to students before attending universities. The original premise of Kane and Rouse (1999) was that four year universities could not reach their true research maturity, and could not prepare students for high level positions if they were spending time educating students in the area of general education. The purpose of the community college is to bridge the gap and to educate students in the area of general education.

The community college was initially designed to teach transfer degrees such as the Associate in Arts and Associate in Science degrees (Jergens, 2010). The first national meeting of junior colleges took place in 1920, forming the American Association of Community Colleges (Witt, Wattenbarger, Collatscheck & Suppiger, 1994). In later years, community colleges expanded their offerings to include

Associate in Applied Science degrees to offer two year programs that prepare students for direct entry into the workforce. According to Pinkerton (2008), enrollments in the community college system were very low in the beginning, and slowly increased during the Great Depression in the 1930's. The gain in enrollment was due to an increase in community college offerings to provide programs that prepare students for the workforce, which has continued to the present time (Jergens, 2010).

The 1960's provided resources for community college enrollments to climb sharply (Jergens, 2010); baby boomers were coming of age and parents were urging their children to attend colleges. Currently, community colleges are often more accessible to students for reasons such as admission requirements, tuition fees, and geographical locations. Community colleges also have the means and methods to add programs and courses to meet the expanding needs of their community. In the 1980's and 1990's community colleges further expanded their offerings to include workforce development (Jergens, 2010). Workplace training and college credit bearing courses were added to college offerings.

Big Sandy Community and Technical College is a two-year institution which is part of the Kentucky Community and Technical College System that awards degrees, diplomas, and certificates. The Kentucky Community and Technical College System saw a two percent rise in classes taught online for fall of 2012; thirty-six percent of all courses taught were online in 2013 (Kentucky Community and Technical College, 2013). The percentage of distance learning courses has been rising

since 2007. Table 2-1 illustrates that the percentage of online courses at KCTCS is higher than the percentage for the United States according to the U.S. Department of Education (2011).

Table 2-1: Percentage of Total Courses Taught Online

	2007	2008	2009	2010	2011
KCTCS	26.75%	32.53%	32.70%	34.14%	35.92%
U.S.	21.6%	24.10%	27.30%	29.20%	32.0%

KCTCS Online courses Retrieved from: http.www.kctcs.edu/book
U.S. Department of Education Online Courses Retrieved from: http://nces.ed.gov/pubs2012/2012045.pdf

Evolution of Distance Education

Distance Education is evolving. The distance mode of instruction began in 1840 when Sir Isaac Pitman, the person who invented shorthand, devised a way to distribute instructional materials through the United States Postal Service (Matthew, 1999). The creation Pitman's first course marked the beginning of distance education. Students taking correspondence courses were awarded for program completion by receiving certificates through the mail (Matthew, 1999). Students could also take courses such as mine safety training through the correspondence format. Several decades later, correspondence courses were available in countries such as Germany, the United Kingdom, Japan and the United States (Curran, 1997). By the 1900s, many colleges were dedicating entire sections of their organization to distance education.

Another major stage of distance education was the usage of radio waves to teach broadcast lectures to students. Between the years 1918 and 1946 educational radio licenses were issued to over 200 colleges by the Federal Communications Commission (Casey, 2008). Although there was a push toward radio education, not many college credit bearing courses were delivered in the format. Radio enabled courses were more engaging and allowed students to hear their instructor with some materials being sent via mail.

Next, distance education evolved to include the usage of television broadcasting. In 1934, the University of Iowa telecast several courses through television (Casey, 2008). As television broadcasting continued, colleges decided it would be more lucrative to purchase their own television stations. The University of Houston was granted the first educational television license in 1953 (Lease & Brown, 1989). Course offering expansions in 1963 inspired the FCC to create a band of channels for instructional purposes called ITFS (Instructional Television Fixed Services) (Casey, 2008).

According to the U. S. Department of Education and Research, (1989) distance learning was noted as using technology to enable students to receive education at a distance. Computers have revolutionized the field of distance education. Initially, computer based trainings were used as early as the 1960s. During the 1990s, the World Wide Web was included in Internet capabilities providing a medium for education. The development of applications such as WebCT and Blackboard for course management systems aided in the growth of distance

education. Applications such as Lotus Notes and Microsoft Office also allowed students to format and submit documents electronically.

According to Lowe (2001), formal training via computers made up 14% of business and industry training methods in 1999. The usage of computers allowed students to access information from networks anywhere in just minutes. By 2002, computers had become indispensable in education. The Web was considered a new world of learning, and is the currently the most used medium for distance education (Lowe, 2002).

In the 2000-2001 academic year, approximately 51% of the institutions of higher education offered distance education which used two-way video, as well as two-way audio for instructional purposes (National Center for Education Statistics, 2002). In 2008, distance education had grown to include about 20% of all undergraduates, which translates to four million students taking at least one distance education class (Allen & Seaman, 2009). Also, noted by Allen and Seaman (2009) in the Learn on Demand report, course delivery methods varied by college, but a prototypical listing of delivery formats is illustrated in Table 2-2.

Table 2-2: Methods of Online Course Delivery

Content Proportion Online	Course Type	Description
0%	Traditional or Face-to-Face	No online content
1-29%	Web facilitated/Enhanced	Uses web-based technology to post syllabus and assignments

30-79%	Blended/Hybrid	Blends online and face-to-face. Uses online discussions and limited face-to-face.
80-100%	Online	Course where most or all content is delivered online

Allen and Seaman, 2009

Distance Education has been at very high rates from 2003 to 2011. The rate of growth of distance education, as seen in Table 2-2, has been steady for the last nine years although the rate of growth for total enrollment has not seen such increases. For instance, the growth rate of online education in 2010 was 10.1%, and the growth rate for higher education was only 2.0%. Students are eagerly migrating to the online arena. In 2011, a staggering 32% of students were taking online classes (Allen & Seaman, 2013).

A multitude of researchers have completed studies over the effectiveness of online courses as compared to traditional courses. According to Wade (1999), Smeaton and Keogh (1999), Shulman and Sims (1999), Phipps and Merisotis (1999), Gagne and Shepherd (2001), and Larson & Sung (2009), no significant difference has been found in the effectiveness of delivery modes of classes. Online courses and traditional courses have the same student learning outcomes. Zirkle, (2002) associates student success with instructor accessibility, instructional design, student interactions and effective communication between instructor and students.

Migration to Online Education

Colleges have been forced to reevaluate their modes of course delivery in response to the high demand for online classes. Two year institutions are moving their program offerings to Web-based education in order to serve a dynamically diverse group of students (Sturgis, 2012; Institute for Higher Education Policy, 1999). Initially, online courses were designed to be student-centered, and eventually students chose to participate in such programs due to their flexibility and accessibility (Institute for Higher Education Policy, 1999). Colleges are tailoring online programs to meet the needs of students with many time and responsibility constraints; therefore, students value the convenience and flexibility that an online education allows (Yukselturk & Yildirim, 2008).

As college professors have both online and face-to-face class responsibilities, their time has been compromised by other related academic responsibilities (Van De Vord & Pogue, 2012). According to the U.S. Department of Education (2011), as seen in Table 2-1, the number of students taking online programs was approximately 20.4% of the student population in higher education in 2007 and 2008. According to the Sloan Consortium (2013), the following changes in online learning were reported in a news release: the number of students enrolling in online courses increased and resulted in more than 6.7 million taking at least one during fall 2011 as can be seen in Table 2-3. The total is an increase of 570,000 over the past year. An astounding 32% of students enrolled in schools of higher education took at least one online course per semester.

Term	Total Enrollment	Annual Growth Rate Total Enrollment	Enrollment Increase over Previous Year	Annual Growth Rate Online Enrollment	Online Enrollment as a Percent of Total Enrollment
Fall 2002	16,611,710	NA	NA	NA	9.6%
Fall 2003	16,911,481	1.8%	368,427	23.0%	11.7%
Fall 2004	17,272,043	2.1%	358,386	18.2%	13.5%
Fall 2005	17,487,481	1.2%	850,267	36.5%	18.2%
Fall 2006	17,758,872	1.6%	308,331	9.7%%	19.6%
Fall 2007	18,248,133	2.8%	449,730	12.9%	21.6%
Fall 2008	19,102,811	4.7%	668,242	16.9%	24.1%
Fall 2009	20,427,711	6.9%	972,669	21.1%	27.3%
Fall 2010	21,016,126	2.9%	563,258	10.1%	29.2%
Fall 2011	20,994,113	-0.1%	572,512	9.3%%	32.0%

Table 2-3: Growth in Distance Education (Sloan Consortium, 2013)

The movement to broaden online course offerings brings greater responsibilities for faculty members (Van De Vord & Proge, 2011). Many larger colleges are hiring Instructional Designers to supplement faculty expertise in the creation of online courses while many smaller colleges do not have the budget for such luxuries. Cutbacks in higher education from government and other agencies have limited the expansion and creation of distance education and instructional design support systems. A typical faculty member has taken on such roles as an instructional designer, technology specialist, and administrative advisor (Restauri, 2004). Professional development activities can be used to teach faculty new ways of handling their new roles. Having professional development activities available online

gives faculty greater flexibility and accessibility to compensate for the increasing role and time demands (Forsyth, 2002).

Time and skill constraints can be very challenging for faculty members. Online professional development can ease the burden for faculty. According to Stein, Shephard and Harris (2011), online professional development programs are seen to be collaborative, relevant and reduce the barriers of distance. Unfortunately, faculty members are historically resistant to embracing the change in technologies and online education despite the increasing demands on time and abilities (Li & Linder, 2007).

Efforts to create rich and engaging content are very time consuming and usually require knowledge of leading edge technology, although publishers do sometimes provide engaging content (Langer, 2009). There are countless software applications and technologies that can be used to create dynamic and rich content for student engagement in online courses, and the learning curve can be steep (Chapman 2009). The time it takes to learn how to use a course management system can also be extensive. Berge (2009) stated that his online survey to educators reflected the time to prepare an online course was perceived to be much higher than the time to prepare for a traditional or face-to-face course.

Professional Development

Professional development activities are trainings that colleges carry out to enrich institutional or individual capabilities to serve and teach students (Alfano, 1993). Professional development is vital for improving the proficiency of the teaching workforce in distance education as well as the quality of programs being offered

(Higgins & Harreveld, 2013). A study completed by Guskey (2000), observed that a constant finding in research on professional development concluded that identifiable educational improvements rarely take place without professional development. According to Simmons, Allen, Carter, Coker and Finnegan (1999), only adding to the knowledge base of teachers may not be sufficient to activate a change in practices and beliefs. A person's beliefs about teaching are thought to be established before they reach the age to attend college, which suggests college faculty are entering the teaching arena with beliefs already formed about teaching (Hutchins & Friedrichsen, 2012).

Professional development programs for faculty should always be designed to primarily bring about change. The change must occur in the attitudes and beliefs as well as a change for student learning outcomes (Guskey, 1986). The integral parts of faculty belief systems have a collaborative role in manipulating each other through the experience of learning (Hutchins & Friedrichsen, 2012). Some components are much easier to influence, such as learning about classroom inquiry, while other components such as attitudes and beliefs can be more difficult to affect.

Faculty members closely relate their vocation to their identity. Taking professional development and implementing new technologies include elements of risk-taking, which also requires changes in personal belief systems instead of a simple addition of new abilities (Crebbin, 1997). It is important to cultivate professional development methods based on a foundation that enables academics to explore their belief systems, as well as teaching concepts (Akerlind, 2011).

Enhanced teaching skills can improve the outcomes of students (Helleve, 2010; Mizell, 2010). The college accrediting agencies are particularly interested in how institutions document, evaluate and report student learning outcomes (Jackson, Davis & Jackson, 2010). Institutions of higher education sometimes include the outcomes of a particular learning segment such as a course or module on the course syllabi as a student guide.

Online Professional Development

As new curriculum is introduced, faculty require learning opportunities with associated continuing support in order to alter their pedagogical practices (Francis-Poscente, & Jacobsen, 2013; Yoshida, 2004). Online professional development is increasing in priority throughout the field of education, and the success and failure of online professional development systems seem to rely heavily on technology acceptance (Smith & Sivo, 2012). Despite the growth in online professional development programs, very few research studies have been completed on the efficacy of the programs for teachers (Dash et al., 2012).

Davis (1989) presented the Technology Acceptance Model as a theoretical framework used to determine a person's acceptance of the use of technology, which is facilitated by two variables including perceived ease of use and perceived usefulness (Lee, Kozar & Larsen, 2003). According to Davis and Venkatesh (2004) and Lee, Kosar and Larson (2003) the intent to use technology is the strongest measure predicting the continued usage of technology.

Motivation in Online Professional Development

Motivation is the process through which goal-focused activities are initiated and sustained (Schunk, Pintrich, and Meece, 2008). Motivation influences many factors associated with learning, such as what, how and when students choose to learn (Schunk, 1995). Research has illustrated that motivated learners are more probable to start activities that are challenging (Hartnet, St. George & Dron, 2011).

Affective and cognitive processes, including beliefs, thoughts, and goals are linked to motivation in contemporary views and emphasis is placed on relationships between the learner and the learner environment (Brophy, 2010). Motivation is described as a need that invigorates people to perform actions for a particular purpose. Student motivation is the degree at which the students devote awareness and vigor toward studious pursuits (Brophy, 2010).

An early behavioristic view of the human condition illustrated the human as only responding to basic drives and needs (Murray, 1964). In later years, behaviorists switched to reinforcement being the primary focus for creating and enforcing patterns of behavior (Brophy, 2010).

Barriers to Online Education and Professional Development

Initially, flexibility was the primary reason for most students to take classes in distance education. At the beginning of distance education, the identified barriers of student success and engagement involved the lack of face-to-face contact, along with communication between the instructor and students (Perreault, 2002). The importance of identifying all variables that deter or prevent the success of students in distance

learning is imminent due to the massive migration of classes to the online environment. The barriers can be projected to online professional development.

Since the inception of learning online, researchers have been identifying student barriers to success and engagement at different intervals. Several types of barriers that have been identified for distance education in a postsecondary setting include technical, academic and cultural (Berge, 1998). The technical barriers consisted of the lack of connectivity and the availability of computers and related software. Academic barriers include such aspects as large class sizes, lack of faculty support to learn technology, and student's lack of time management skills. Researchers identify cultural barriers as lack of administrative support for faculty and the lack of the ability of faculty to use and understand mediums associated with distance education. According to Lock (2006), cultural barriers can prohibit faculty to transition to a learning community for professional development. He listed social barriers including educational structures, overload of responsibilities of faculty and other competing job priorities that can affect how and when faculty take part in professional development.

Brinkerhoff (2006) identified the barriers to distance education to include lack of computer skills, Internet accessibility, economic situation, age, and motivation to participate in online courses. Xiaojin's (2007) identified the barriers as being isolation from other students and no sense of involvement in the student community. In 2006 instructional barriers were identified, which included instructor professional development, massive time demands to convert traditional courses to distance

education courses and transparent ways to teach hands-on materials online (Zirkle, 2006).

The research on online education has identified several barriers over time. Some barriers have changed, while others have remained constant. One barrier that is disappearing is the technology barrier. Kentucky is implementing a project called the Middle Mile (Aretakis, 2014). Kentucky lags behind much of the country in fiber connectivity, and the Middle Mile initiative will bring fiber optic infrastructure to 120 counties (Aretakis, 2014). Eastern Kentucky is the first priority for the initiative, and the construction will begin in August of 2015 (Smoot, 2015). The initiative is targeted to improve high speed Internet as well as cell phone coverage throughout the state, ultimately reducing the technological barrier. The RFP (Request for Proposal) stage for the Last Mile was announced in April 15, 2015 (Smoot, 2015), which is the last stage of the initiative. The Last Mile will bring fiber optic broadband connectivity into individual homes of eastern Kentuckians.

Theoretical Framework

When conducting research, it is vital to pursue truth over perceived understandings (Phillips & Burbules, 2000). Frameworks are used for organizational processes through which valid conclusions can be drawn and applied to many situations. The Diffusion of Innovation framework can be applied to the research at hand. The theory is defined as a social process in which innovative ideas can be transferred through specific channels over a particular time frame (Rogers, 2003).

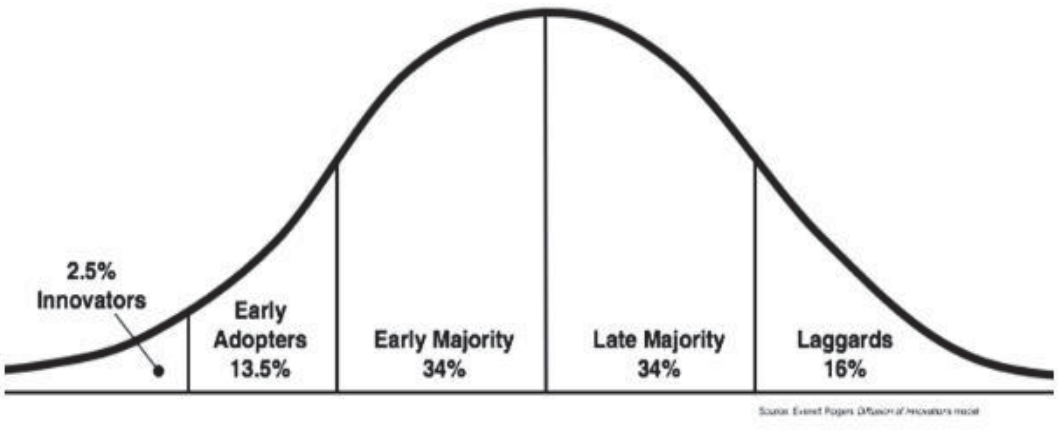


Figure 2-1: Diffusion of Innovations Framework (Rogers, 2003)

The Diffusion of Innovation theory consists of new ideas or innovations, channels of communication, societal systems and time. Online professional development can be identified as an innovation. The theory also suggests that there are specific intrinsic characteristics associated with the acceptance rate of the technology and includes aspects such as the relative advantage over not using the technology, existing value compatibility, ease of use and the ability to try the innovation (Minishi-Majanja, 2005).

Relative advantage is an important indicator relating to the cost and benefits associated with accepting an innovation, and is positively related to the innovation's rate of adoption. Compatibility is also an important aspect of the Diffusion of Innovation theory. The more compatible that an innovation is with a person's existing values and belief systems, the more likely that the innovation will be accepted.

Complexity is another term related to acceptance of the innovation. If the innovation is too difficult to learn, then it is less likely it will be accepted. Acceptance of the innovation is also contingent on its ease of trialability. The easier the innovation is to test, the more likely it will be accepted. Observability is a different aspect related to acceptance of innovations. Observability is the degree to which the benefits can be seen by a prospective user.

The theory has been identified as an important predictor of assessing the acceptance of new technology or innovation. The Diffusion of Innovation theory consist of five stages of adopter categories of a social system including "innovators, early adopters, majority, late majority and laggards," (Rogers, 2003). In previous research the theory has been applied to various systems such as technology acceptance, public health services, communication and online learning systems, (Rogers, 2003; Piccoli, Ahmad, & Ives, 2001; Lee et al., 2011). In this research, the theory will be applied to the acceptance of online professional development as seen in Figure 2.2. The application denotes that faculty which encounter more barriers will be laggards with late acceptance and conversely, faculty who are motivated can be defined as innovators and early accepters.

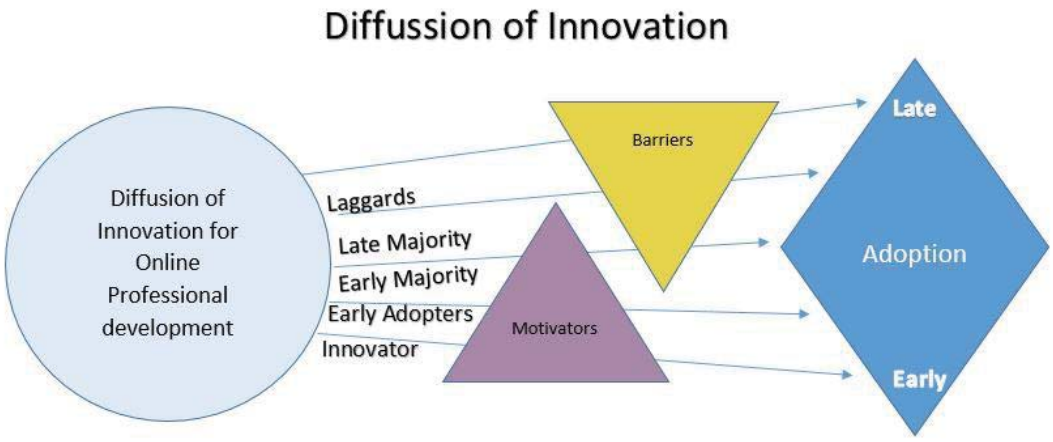


Figure 2-2: Diffusion of Innovations theory applied to the decision of taking online professional development.

There are five stages of acceptance in the theory to make the decision to take an online professional development (Rogers, 2003). The first stage is knowledge. The faculty member can gain knowledge about the professional development from administration or from discussions with other faculty members. The second step or persuasion can be achieved by a simple persuasive discussion or reviews about the professional development. Some faculty members may have already accepted the innovation and discussed the advantage of participating. The decision to take the online professional development would be the next step in the process. The fourth step is the implementation phase of the process. The faculty member would decide to implement the teaching strategies or innovations learned in the online professional development.

Confirmation occurs when the innovation is considered successful. An example could be that the innovation was used in teaching a specific competency. The success is when the students successfully complete assignments associated with learning the competency. Although some faculty members might accept and successfully implement the innovation, other faculty members may not ever choose to accept the innovation.

Summary

Students are rapidly moving to online education, and community colleges are responding to the needs of students. As a result, faculty have more responsibilities associated with teaching online. Online professional development offers a flexible opportunity that can help faculty keep up with innovations in technology and teaching as well as learning emerging ideas in their subject areas.

The theoretical framework used for the study is the Diffusion of Innovation (Rogers, 2003). Factors affecting participation in online professional development include motivational issues, such as challenges and affective processes, and impeding barriers, such as academic, technical, and cultural aspects.

Chapter 3

Methodology

This study examines the motivation and barriers of faculty to enroll in an online professional development. The research project uses a mixed methods approach to evaluate motivating factors and barriers of faculty members to take online professional development. Online surveys were sent to 25 full-time faculty members via email to ascertain information on motivation and barriers. The survey contains finite questions with a Likert scale as well as open response questions.

Survey Instrument

Question to research:

1. What are motivating factors and barriers that affect faculty participation in online professional development?

The research is based on the questions and the survey created by Albrkhil (2011), which has been modified to address the situation of the demographics and geography of the research area. The survey in Appendix A consists of quantitative questions relating to motivations and barriers to taking online professional development. The survey is used to request responses from participants using a Likert scale. Two open response questions soliciting a list of barriers and motivations were also included.

Focus Group

Prior to the survey being sent to faculty members, the researcher convened a focus group of 9 AECT (Association of Educational Communication and

Technology) members to adhere to the Delphi model. The focus group was made up of participants from the Graduate Student Assembly Board from the AECT (Association of Educational and Communication Technology) organization. All sixteen members of the board were sent an invitation to participate, and the first nine responding were chosen. The Delphi method, which consists of at least 9 participants and two levels of discussion for an expert panel (Jones & Hunter, 1995), was used to evaluate and clarify questions on the survey in Appendix A. During the first round of analysis, the panel listed their experiences with the research question associated with this study on motivating factors and barriers to taking online professional development or online courses to identify the survey attributes needed. The suggestions were grouped by motivators and barriers and collectively evaluated by like responses. The most used barriers and motivators were compiled and given to the focus group for review along with the non-edited survey from the previous research. The focus group compared and contrasted the initial findings to the survey. The survey was slightly changed to provide an accurate instrument for the research in order to ascertain motivating factors and barriers to taking online professional development. The survey was tested for clarity and pertinence and can be viewed in Appendix A.

Survey Participants

The participants of this study included a sample of twenty-five full-time academic faculty at Big Sandy Community and Technical College in Prestonsburg, Kentucky, employed during the fall semester of 2014. Currently, there are 115 full-

time faculty members, which include general and technical educational areas with varying degrees of education. The participants were chosen and contacted via email at least one week prior to the study to solicit pledges of participation with a consent form attached, which can be viewed in Appendix C. The researcher chose the requirement of six years teaching experience in order to solicit responses from experienced faculty that had participated in professional development activities during their employment.

The participants were informed about the purpose and scope of the study in an email with the consent forms attached. The researcher expressed the importance of anonymity and value of the responses. Consent forms were e-signed and sent back to the researcher via email. One week later, the participants were sent the survey link through Survey Monkey and reminded of the importance of the research. Each week, reminders were sent by email as well as interoffice mail until all chosen participants had completed the survey.

Procedures

The survey in Appendix A has been modified to pertain to a rural community college setting. A focus group consisting of Graduate Student Assembly Board members from the Association of Educational Communication and Technology Association was formed to review the survey and test for clarity and pertinence. Each member of the focus group was emailed a consent form. The form was e-signed and sent back to the researcher before engaging in the focus group. Participants listed the types of motivation and barriers which have been encountered through their

educational and teaching experiences. Also, barriers such as knowledge, time, administrative support, technological ability and communication were examined for correlation with demographic data. Demographic information such as age, gender, education and experience was gathered via the survey. The results of the quantitative survey were analyzed with an exploratory factor analysis to evaluate and establish relationships between variables. The results of the qualitative portion of the survey will be listed and evaluated within the limits of the study.

Limitations of Study

Threats to validity evaluate how much the research can be generalized and applied to a given population as well as the reliability of the research to be replicated (Gravetter & Forzano, 2012). A limitation of the research was that only post-secondary faculty members in a small, rural community college were included. The participants were not representative of the population as a whole, because of the uniqueness of the targeted group. Replication of the study may not yield the same results on another unique group (Creswell, 2014). Also, the participants were not included in a random selection due to the requirement of teaching experience, which allows research to be replicable (Creswell, 2014). Random selection allows the researcher to take a sample that is representative of the population being researched.

Another limitation is that the data collected was self- reported by existing educators and was dependent on the understandings and emotional aspects of the participants. The participants can report responses that are not exactly what the researcher has asked and data can be skewed with incorrect answers. Self-reporting

also depends on participant recall of events, which can be incorrect (Picardi & Masick, 2014). Other limitations might include the small sample size used in the research with an exploratory factor analysis. The sample size will be 25 full-time faculty members. A small sample size can cause interaction between variables which can skew the results (Rourke & Hatcher, 2013).

Chapter 4

Results

The purpose of the study is to gather information about barriers and motivating factors for faculty to take online professional development. The survey instrument used for the research was based on research performed on a very similar topic.

Focus Group

The survey was used in conjunction with the information revealed through the literature review. The researcher reviewed the survey to narrow the focus of the questions. Some questions were deleted due to lack of relevance to the study. A focus group of nine participants gathered through the Association of Educational and Communication Technology Graduate Student Assembly Board were used to review the survey instrument to validate pertinence and efficacy of the questions.

The focus group was assembled by soliciting participation of the Graduate Student Assembly Board of the Association for Communication and Educational Technology. Members from all over the United States participated in the focus group. The first 9 members agreeing to participate were sent consent forms and instructions on how to function in the focus group. The members were first asked to identify their own motivators and barriers to taking online professional development. The responses are listed in Table 4-1 and 4-2. The researcher compiled the answers and sent the lists to the participants in the focus group along with a copy of the unmodified survey.

Table 4-1. Focus group responses to motivators to take online professional development
Flexibility of progression, time and place, with ease of access
Networking opportunities and making new contacts
Prefer online learning (I have become adapted to performing learning on my own and honestly don't like a teacher standing over me and lecturing for long periods of time while I have to sit at attention for that same amount of time)
Related to my professional interests or skills, which I am seeking to develop for my own enrichment with individualized topics
Course site is professionally designed- Rich media integration, engaging
Incorporates both video and written materials that I could print
Respectful of my privacy.
Learn new and relevant skills
Current situation
Future advancement
Ability to see a snapshot or overview of the course before signing up (like test driving a car)
Recommended by a friend or someone I don't know personally, but respect.
Re-energizing and new experience
Direct impact on my subject
New format or application for activity
Potential for learned tool to be immediately applied to classroom (online or in class)
Cross-coverage between curricula
Addressing/Advancing students' skills

Table 4-2. Focus group responses for barriers to take online professional development
Poor course design
Video or print only
Complete linear design. (The course should be more like Pac Mac so I can explore anywhere while still staying in their defined structure and less like a linear Matchbox Car track.)
Time and access; not enough time in the day.
Unrelated to my professional interests or skills, which I am seeking to develop. Irrelevant

PD does not take into account learners' needs (mine or students)
If the PD is not good, then it can be demotivating and seem like a waste of time, which would hinder me from completing the online development course.
Unclear motivation for my participation

The group met via Google chat and reviewed each question on the survey testing for efficacy and pertinence to the research problem. Since the focus group members were professionals as well as students, two Google chats were necessary to accommodate all participants' schedules. Both chats were held on November 24th at 6:00 p.m. and 8:00 p.m. The results from both chats were compiled by the researcher, and only a few minor changes in the survey were recorded to increase effectiveness of communication.

Survey

Twenty-five full-time faculty members with at least six years of teaching experience were selected from the faculty pool at Big Sandy Community and Technical College. Eighty-six of the faculty met the required six years teaching experience, and were included in the pool to solicit participation. The participants were initially asked by the researcher to take the survey via email. After the minimum number of faculty members agreed to participate, each person was sent a consent form also through email, and asked to e-sign the document and return it to the researcher. After all of the consent forms were received, the researcher sent all faculty participants a link to the survey through Survey Monkey.

The survey was available from December 15, 2014 to January 12, 2015. Most of the faculty members completed the survey at the beginning of winter break. All survey questions were formatted to solicit voluntary responses. Any respondent could quit taking the survey at any point during the session. A reminder was sent on January 5th to solicit the last few respondents' participation. The last reminder was sent on January 11th to ask the last participant to respond. The survey was closed on January 12th. All 25 faculty members in the research pool responded to the survey. The data was exported from Survey Monkey into an Excel document and imported into SPSS.

The quantitative questions were formatted with a Likert scale and included 33 questions. The questions were coded from 1-33 with LS1-LS33 respectively. The answer choices were in the format of strongly disagree, disagree, neither, agree, and strongly agree. The answers were coded with strongly disagree =1, disagree=2, neither=3, agree=4 and strongly agree=5. The response and the mean for each question are illustrated in Appendix E. Demographic information was ascertained in the last six questions in the survey.

Demographic Results

The age of the respondents were coded in 4 year ranges beginning with 20 years. The range of 20-24 was coded as 1. The range of 25-29 was coded with as a 2, while the range of 30-34 was coded as a 3. The ranges were all coded with the last range of respondents over 60 coded as a 9. The participant ages are illustrated in Table 4-3.

Table 4-3. Age of Survey Respondents

Answer Choices	Response Count	Response Percentage
20-24	0	0.0%
25-29	0	0.0%
30-34	0	0.0%
35-39	3	12.0%
40-44	2	8.0%
45-49	3	12.0%
50-54	6	24.0%
55-59	4	16.0%
Over 60	7	28.0%
Answered Questions 25		

Twenty-five faculty members participated in the survey. Twelve (48%) faculty were male and thirteen (52%) members were female. Questions about ethnicity were not included in the survey due to the small amount of diversity in the faculty pool. It was feared that individual responses could be identified due to the small sample size of participants. The educational level attained by the respondents was varied. One participant had an Associate Degree, while 9 participants had earned a Bachelor's degree. Another 11 respondents had earned a Master's degree and 4 participants had earned a Doctorate degree. The results can be seen in Table 4-5.

Table 4-4. Education of Survey Respondents

Answer Choices	Response Count	Response Percentage
Vocational Experience Only	0	0.0%
Vocational Experience and some college	0	0.0%
Associate Degree	1	4.0%
Bachelor's Degree	9	36.0%
Master's Degree	11	44.0%
Doctorate Degree	4	16.0%
Answered Question 25		

Table 4-5. Teaching Experience of Survey Respondents

Answer Choices	Response Percentage	Response Count
1 year	0.0%	0
2 to 5	0.0%	0
6 to 10	4.0%	1
Over 10	96.0%	24
Answered Question 25		

One of the requirements for participating in the research was to have at least 6 years of teaching experience. Table 4-6 illustrates the teaching experience of the survey respondents. Since all respondents met the research requirements of 6 years teaching experience, all data collected was used in the analyses. Interestingly, out of the participants, 96% had been teaching for more than 10 years. The respondents were asked how many years of teaching courses online, which can be seen in Table 4-7. One person (4%) had taught online for one year, while 12% had taught online courses for 2-5 years. A majority of the respondents (58%) taught online for 5-10 years. The rest of the respondents (28%) taught online for more than 10 years.

Table 4-6. Online Teaching Experience of Survey Respondents

Answer Choices	Response Percentage	Response Count
1 year	4.0%	1
2 to 5	12.0%	13
6 to 10	56.0%	14
Over 10	28.0%	7
Answered Question 25		

Exploratory Factor Analysis

The data analysis began by coding the data to run in SPSS. The KMO or Kaiser-Meyer-Olkin and Bartlett's Test of Sphericity of the exploratory factor analyses was .67, meaning that the sample size was adequate for the study. The scree plot for the data can be seen in Figure 4-1. Two open response questions were included in the survey to allow respondents to self-report barriers and motivating factors which may not have been included in the survey. The first question was to solicit answers about motivating factors that affect participation in online professional development. The second question was to gather information on participant declared barriers to taking online professional development.

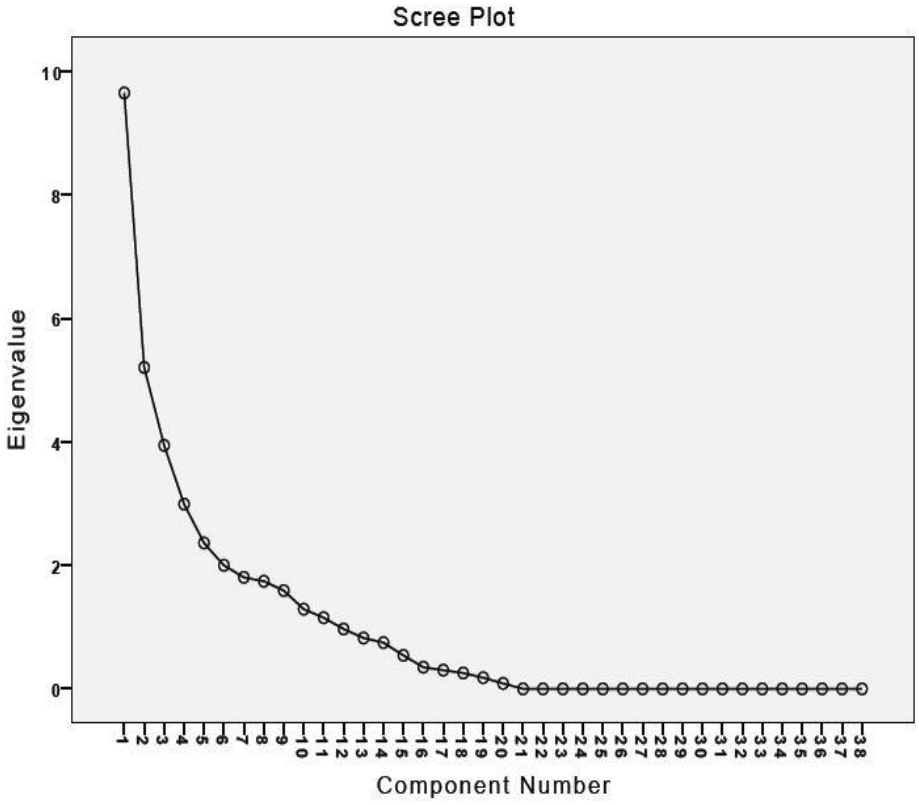


Figure 4-1. Scree Plot for 38 item instrument

Motivating Factors and Barriers Quantitative Results

The results of the exploratory factor analysis yielded one factor with four components that were very closely related. The Kaiser-Meyer-Olkin and Bartlett's Test of Sphericity for the output was .67. According to Williams and Onsman (2010), the KMO and Bartlett's index ranges from 0 to 1 and a value of .50 is considered suitable for factor analysis. A scree plot showing the Eigen values and component number in figure 4-1 shows one factor with four components accounted for 57.3% of the variance. An illustration of all the component eigenvalues can be seen in Table 4-8 and 4-9.

Table 4-7. Eigenvalues and Cumulative Variance

Factors	Component 1	Component 2	Component 3	Component 4
Eigenvalues	9.651	5.205	3.944	2.992
Variance (%)	25.396	13.698	10.379	7.784
Cumulative Variance (%)	25.396	39.095	49.473	57.347

Table 4-8. Survey Question Component		Mean
8. I find online professional development useful to me in my teaching career (LS8)	0.867	3.84
11. The advantage of taking online professional development outweighs any disadvantages. (LS11)	0.858	3.60
5. Taking online professional development can make creating course content easier. (LS5)	0.838	3.84
1. Taking online professional development can improve my teaching performance. (LS1)	0.830	3.72

The first component, which had a value of .867 was: I find online professional development useful to me in my teaching career (LS8). The average of the responses for the question was 3.84, with question ratings on a scale of 1-5. One is equal to strongly disagree and five is equal to strongly agree. There were no responses of disagree or strongly disagree in the data set. The second significant survey factor was, the advantages of taking online professional development outweighs any disadvantages (LS11) with a component value of .858. The average of the responses for the survey question was 3.6 with responses varying from 1 to 5.

The statement about taking online professional development can make creating course content easier (LS5) was the third component in the research which had a component value of .838. The average of the responses for the question is 3.84, while survey response possibilities were also 1 - 5. The final factor important in the research, was taking an online professional development can improve my teaching performance (LS1) with a component factor of .830. The average response for the question is 3.72, with answers from a scale of 1 to 5. None of the other factors had any significance in the exploratory factor analysis, which may have been the result of such a small sample size.

Qualitative Results of Barriers

The results of the open response questions yielded many responses which can be seen in Table 4-9. Forty-two point eight percent of the responses were associated with lack of interaction and face communication as well as isolation. Of the barriers

listed, 23.8% of the responses included time as being a barrier. Also listed is lack of funding and difficulty concentrating on the topic.

Table 4-9. Open Response for Respondent's Listing of Barriers for Online Professional Development

The need for interaction with my colleagues would be missed online.
I find it very difficult to schedule time in my office when I am not interrupted to participate in webinars. Mostly, I have to stop at least 1 time if not multiple times during a session.
As long as the site is clear and concise as to what you are supposed to do, I can work well in the online environment.
However, at times, things are vague and not explained in a way that makes navigation easy. This would be a barrier. Also, poor internet connection or low speed of the internet would be a concern.
Face-to-face communication
Having to be online at a particular time
Unprofessional presenters, lack of interaction with presenter and classmates, Presenter did not take questions from participants, uninformative/uninteresting topics covered
Technology problems [something does not work]
I miss the face-to-face interaction when I do professional development online. I also like to be shown certain things in a hands on fashion which I feel sometimes doesn't happen in an online setting.
Survey and topic are difficult to address because I'm not familiar with online professional development and, consequently, could not adequately or accurately respond to the majority of questions, which is why I selected 3 most often.
Prerecorded videos have a lack of interaction with instructor. Internet at home is very spotty for many places in east KY (even cell phone coverage is really bad in places)
If the PD is at a specific time and not archived for viewing. When PD is offered for a specific product or computer program and Administration will not support the purchase of the product/program for faculty/staff that wish to use it after their PD training. Facilitators that are not experts on the subject in which they are leading a PD training.
Scheduling - not offered during times that I am available. No archive - sessions that are held live only registration - having to register in advance instead of being able to join when the session is beginning $$$ - having to pay for sessions with the potential of having technical difficulties and not being able to attend; having to request and be approved for funding for professional development.
It is impersonal.
Getting questions answered
I believe that Online Professional Development is the last resort in taking these classes. I associate working online for these PD hours as less interactive with other members and I would rush through the classes just to receive my hours online.
A lot of the times the professional development listed as mandatory is useless or repetitive. The opportunities I would like to take advantage oftentimes get limited due to expense and lack of funding by college.
Taking the time has been my biggest problem.

Sense of being alone.
It is very difficult to stay focused on the training.
Too much time trying to understand the basic understandings
Answered Question 21

Qualitative Results of Motivating Factors

The responses listed by the participants included a wide range of motivating factors. The response most listed is flexibility, convenience and accessibility, which was listed by 47.8% of the respondents. Fourteen point two percent of the respondents wanted either to be paid to participate in the professional development or wanted funding to implement the initiatives learned in the professional development. Other items listed included less teaching workload and pertinence to current courses being taught. Intrinsic motivators such as helping with current teaching duties and ability to apply items learned made up 14.3% of the responses.

Table 4-10. Open responses for motivations to take online professional development
I participate in many free webinars. If we had a bit more funding, I could take some of the paid programming which is much more detailed. Work on your own time, always available for review.
Can do on my schedule. Less travel
The ability to complete the professional development at any time
Fix these concerns and then I may consider it further
Easy access to material whenever you want to participate; proof of participation; professional 'credit'
It is easier to attend a workshop online rather than drive three hours to go to a conference.
The professional development activity or course would have to be well designed, concise, easy to use and accessible 24/7 for my convenience.
If it was actually live (in a way, semi-face to face). If there was a way to get paid extra to attend the session. If it directly dealt with content that I am teaching
Recording/archiving the PD in case of a time conflict. User friendly PD atmosphere where even those with little computer skills can feel comfortable using all of the tools, chats, etc. Certificates of completion emailed to myself, my supervisor, and HR (for employment folder) as soon as the PD is completed.
Being able to log on and view an archived session.

Not having to apply for funding.
Being able to go to one site to access pd sessions without having to search different sites and pages easy access
The convenience. Confident that they would help me in my teaching duties
I believe the online classes would be better accepted if they were completed through a Facebook group page. I am not sure how the credit would be given but I might be more interested in this form of delivery.
Offering of needed/wanted topics and the ability to actually implement the training.
Example attending training on new technology with no way to implement / purchase at the college.
Disciplining myself to take the time.
None at this age
Flexible scheduling.
A sabbatical from teaching 7-8 face2face classes
Answered Question 21

Administrative Support Results

Faculty noted items relating to administrative support in both open response questions. Lack of funding for professional development and implementation of innovations was identified by 14.3% of the respondents in the barriers section, while providing funding for the professional development and implementation was identified by 19% in the motivations section of the survey.

Technology Results

Technology proficiency was notably high with the faculty included in the research. As seen in Figure 4-2, 80% of the participants declared proficiency (agree or strongly agree responses) with technology. The percentage of neutral answers was 4% and the percentage of disagree answers was 16%. There were no participants that strongly disagreed with the statement.

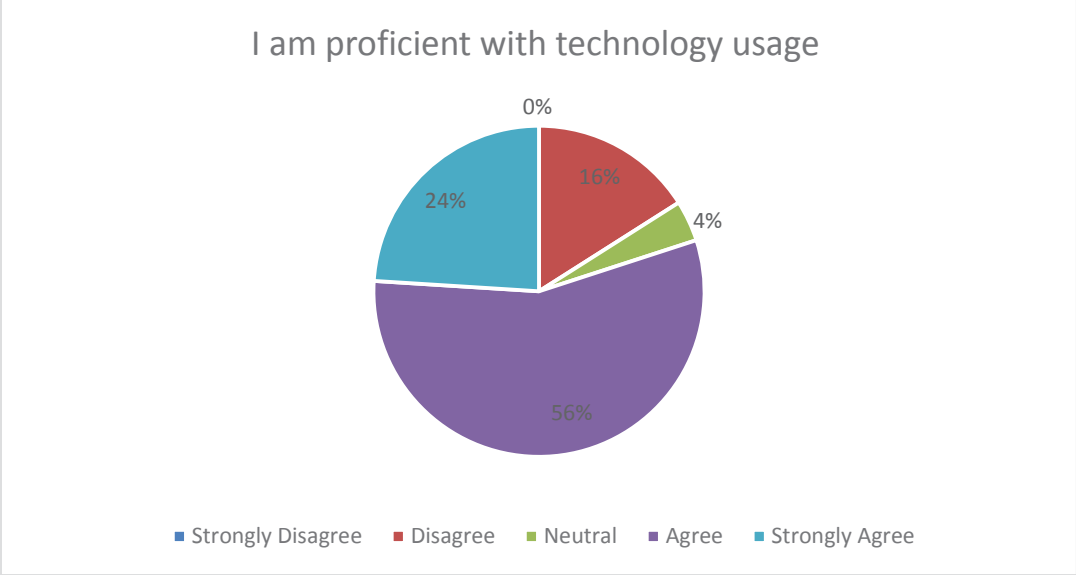


Figure 4-2 Technology Usage

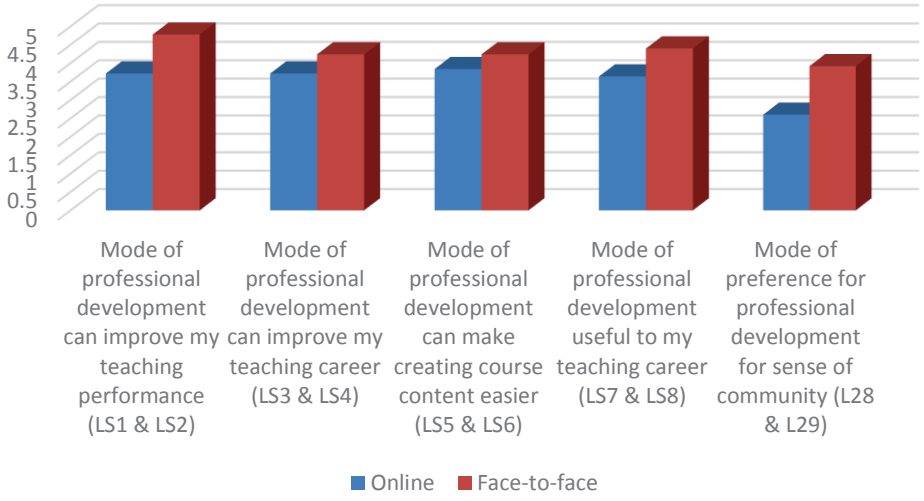
The average response for the survey question gaging the benefits of technology usage in online and traditional classes was 4.56 and 4.36 respectively. A majority of the participants (88%) responded that technology was beneficial in face-to-face classes, while 92% thought technology was beneficial in online classes.

Parallel Questions Analysis

Seven parallel questions were included in the survey testing the respondent's views of online versus face-to-face characteristics of professional development. The questions were rated in a Likert scale of 1 to 5. The answers were coded with strongly disagree =1, disagree=2, neither=3, agree=4 and strongly agree=5. The first group of questions compare online and face-to-face professional development in teaching effectiveness, efficiency, creating course content and usefulness to their teaching career. In all responses to the four questions, the face-to-face average was always

higher by at least .4. The results can be seen in Appendix D. The second group of questions compare interaction in face-to-face and online professional development. The face-to-face average was 1.6 higher than the online professional development. The next question solicited the relative benefits of technology in face-to-face and online classes. The average for online classes was .2 higher than the face-to-face classes. When asked about which mode of delivery was preferred for professional development, the average for face-to-face was 1.32 higher than online. The results can be seen in Figure 4-3.

Figure 4-3. Comparison of Parallel Question Responses



Interestingly, all of the questions which were found significant in the exploratory factory analysis were also part of the parallel question analysis in Figure 4-3. The exploratory factor analysis results found LS1, LS5, and LS8 to be significant components. The questions were: (1) Taking online professional development can

improve my teaching performance, (2) taking online professional development can make creating course content easier and (3) I find online professional development useful to me in my teaching career. The only question that did not have a parallel counterpart to test the mode of delivery was LS11, which was the advantages of taking online professional development outweighs any disadvantages. As seen in Figure 4-3, the face-to-face ratings were always higher, yet the responses for the online were seen to be directly related due to their mean similarity, which can be seen in in Table 4-9.

Chapter 5

Implications

Three guiding questions are related to this research. The first question is based on the hypothesis that faculty with intrinsic motivation are more likely to participate in an online professional development activity. The second hypothesis is a direct relationship between a positive attitude toward technology and the motivation to take online professional development. The last hypothesis included faculty perceptions of administrative support having a correlation with faculty motivation to take online professional development.

Professional development is an integral part of a faculty member's job requirements in a college or university. Professional development activities are implemented to improve the proficiency of the teaching workforce in distance and face-to-face education, as well as the quality of programs being offered by an institution (Higgins & Harreveld, 2013). In order to keep up with industry changes and innovations, professional development can be a learning opportunity for faculty despite the delivery method. Faculty are charged with keeping pace with emerging innovations in their disciplines, study and implement innovative practices in pedagogy as well as assess outcomes of student learning (Daly, 2011).

Limited research has been completed in the area of motivating factors and barriers that affect faculty to take online professional development, while much information has been gathered about students taking online classes. The ideas are very similar, yet very different as well. To initiate the research, the researcher first

looked for similar studies that had been conducted in the past. The survey instrument used in the research is based on the previous research conducted by Albrkhil (2013). The group and demographics of the research participants were vastly different; therefore, the questions were reviewed to ensure pertinence to faculty members in a small, rural community college. A focus group was used to review questions and check for pertinence and efficacy.

The survey was given to 25 full-time faculty members who had taught for at least 6 years. The first 33 questions on the survey served to solicit responses in a Likert rating scale of motivating factors and barriers. The responses were coded and an SPSS exploratory factor analysis was run. Two open response questions were included in the survey as well as 5 demographic questions on gender, age, education, teaching experience and online teaching experience.

Motivating Factors and Barriers

As a result of the exploratory factor analysis, one factor with four components was identified to be significant. The factor components were identified as intrinsic motivators which included: (1) Professional development is useful to my teaching career, (2) advantages of taking online professional development outweighs the disadvantages, (3) online professional development helps make creating course content easier, and (4) taking online professional development can help improve my teaching performance. One of the three purposes of the study was to investigate intrinsic motivation of faculty to participate in online professional development. The four components represented 57.3% of the variance in the study. The results of the

exploratory factor analysis support the idea that intrinsic motivation is a primary reason to take online professional development. The mean of the responses for the four factor components of LS8, LS11, LS5, and LS1 were 3.84, 3.60, 3.84, and 3.72 respectively. The responses were on a Likert scale which had ratings ranging from 1-5. The close relationship in mean values signify that the items are also directly related. All of the factor components were related to the self-efficacy of job performance.

The results reflect the value identified in taking professional development despite the mode of delivery. According to the survey responses, the faculty members prefer to take face-to-face professional development due to lack of interaction, but identify the value of participating in online professional development. Of the respondents, 14.3% listed items that were intrinsic motivators to the open response question listing motivators to take online professional development. The open response question analysis of self-declared barriers included 36% of the respondents noting isolation, lack of interaction, and difficulty in getting questions answered in online professional development. Also included in the results was administrative support for funding of professional development and implementation in both the barriers and motivations sections with 19% and 14.3% respectively.

Another question in the research was to study the direct relationship between a positive attitude toward technology and motivation to take online professional development. Eighty percent of the respondents reported being proficient with technology. Eighty-eight percent of the faculty feel that technology is beneficial in

face-to-face classes, and ninety-two percent of the faculty responded that technology was beneficial in online classes. Faculty identified online professional development as a means of improving their teaching abilities. Participation in online professional development is a means to an end. The flexibility and accessibility as shown by the qualitative responses entice faculty members to participate in online professional development.

The third hypothesis in the research included perceptions of administrative support having a high correlation with faculty motivation to take online professional development. The open response answers of the faculty members noted that many faculty feel there is lack of administrative support in funding for participating in online professional development, as well as lack of support in funding opportunities for faculty to apply what they learn in professional development activities. Nineteen percent of the faculty listed funding for professional development as a motivator to take online professional development, while 14.3% of the listing in the open response barriers section listed funding for professional development.

Validity and Reliability

A limitation of the research is that the participant pool was made up of 25 faculty members from a small, rural community college. The participants were not representative of the population as a whole, because of the uniqueness of the targeted group. Replication of the study might not yield the same results as a similar group (Creswell, 2014). Since the participants were required to have 6 years teaching experience, the participants were not included in a random selection which allows

research to be replicable (Creswell, 2014). Random selection allows the researcher to take a sample that is representative of the population being researched. In the future, a random selection should be used to increase the validity.

The data collected was self-reported by faculty and dependent on the understandings and the emotional state of the participants. The participants can report responses that are not exactly what the researcher asked, and data can be skewed with incorrect answers. Self-reporting also depends on participant recall of events, which can be incorrect (Picardi & Masick, 2014). The sample consisted of 25 full-time faculty members. According to the KMO or Kaiser-Meyer-Olkin and Bartlett's Test of Sphericity of the exploratory factor analyses was .67. The sample size was adequate, but a small sample size can cause interaction between variables which can skew the results (Rourke & Hatcher, 2013). The sample size should be increased in future research so that the data reliability will be increased.

Diffusion of Innovation

The Diffusion of Innovation theory includes the acceptance of an innovation through communication channels in society over a period of time (Rogers, 2003). The theory suggests that specific intrinsic characteristics are associated with the acceptance rate of innovation, and includes a relative advantage over not using the technology. The theory also suggest that existing value compatibility, ease of use, and the ability to try the innovation are significant aspects as well (Minishi-Majanja, 2005). The concept can be seen in the results of the research. The factor identified by the exploratory factor analysis consisted of four components identifying aspects of

intrinsic motivation. The intrinsic motivation components were seen to be directly related, since the average responses for each question were close in value. Faculty members with intrinsic motivation would be included in the innovators, early adopters and early majority. The early majority may have already overcome barriers to participate in the professional development activities. The laggards and late majority would need to be motivated to participate, and to have existing barriers eliminated.

According to Rogers (2003), the five stages of acceptance in the theory include knowledge, persuasion, advantage, implementation, and confirmation. The lack of administrative support to fund the implementation of innovations learned in professional development activities act as a deterrent in the acceptance of the online professional development. In order to improve the rate of acceptance, the administration must appropriate funding to support the purchase and implementation of innovations learned in professional development activities.

Faculty

The research examined the motivating factors and barriers for faculty to take online professional development while focusing on intrinsic motivation, attitude toward technology and effect of administrative support. The exploratory factor analysis results showed one factor with four components associated with intrinsic motivation. The results of the study suggest that intrinsic motivation for faculty to take online professional development is closely related to the faculty's need to positively affect teaching performance. The faculty members identify the importance

of using technology in teaching despite the mode, but also identify barriers such as isolation and lack of interaction associated with online professional development. In order to overcome the barriers, synchronous and asynchronous communication should be an integral part in the professional development activities. Instructor videos giving the perception of interaction with participants as well as possible Google Plus chats and discussion boards can be used to overcome barriers.

Faculty members prefer to take professional development face-to-face, but also recognize the advantages of participating online rather than not at all. Faculty technology usage is identified as important in both face-to-face and online classes, while the greatest importance is in the latter. In order to increase motivation for faculty to take online professional development, the professional development activity must be created in a manner that focuses on connectivity and community among participants and funding must be supplied. The specifics about the usage of communication and collaboration strategies as well as pertinent topics of the online professional development activity must be communicated to the faculty in order for value to be increased to also influence faculty participation.

Professional Development Coordinator

The results of the open responses as well as the Likert scaled questions on the survey suggest that faculty only want to participate in professional development activities that positively affect their teaching performance or their expertise in their field of study. In order to ensure the topics of the professional development are useful to participating faculty members, the faculty members must be polled to find out what

professional development activities are needed to increase the value of participation. The professional development activity must be deemed useful and positively affect the teaching abilities of the participant. Subjects that improve expertise as well as teaching efficacy should be included in the poll.

Administrative

Faculty identified lack of funding provided by the administration to participate in professional development activities as a barrier to taking online professional development as well as the lack of funding to implement innovations learned as a result of taking professional development. Big Sandy Community and Technical College appropriates limited funding each year for faculty to participate in professional development. The funding is divided into two groups to accommodate general education and technical faculty members. The procedures for acquiring funding are competitive. Each quarter the professional development committee decides which faculty members are awarded funds to attend professional development activities.

The procedures for the competitive travel can be found in Appendix F. Barriers that prohibit participation should be eliminated. The procedures for competitive travel funding should be reviewed to streamline the process. Grants should be found to increase funding for faculty participation in professional development. Also, grant funding should be acquired to allow faculty funding to implement innovations learned in faculty professional development. Barriers that

inhibit faculty to fully participate in professional development opportunities should be reviewed and eliminated.

Future Research

The study can be expanded to include a wider population to more thoroughly explore the variables surrounding online professional development. The current sample size of 25 needs to be increased to ultimately improve validity by including a more diverse, and larger pool of participants. The study can also be expanded to comprehensively explore the technology aspect of the participants. Most faculty members self-declared that they were proficient in technology usage. The specifics of gaging faculty computer proficiency could be explored even further and then compared to the other variables. Also, the ethnicity question could be added back to the survey to find possible relationships among variables.

In the future, research should include a professional development activity which takes into consideration all previous findings. The faculty should be involved in both synchronous and asynchronous communication activities to find out which method the participants deem most important and to diminish feelings of isolation and lack of collaboration with colleagues. Also, the aspect of administrative support such as funding should be reexamined to ensure adequacy to motivate faculty to participate in online professional development activities.

Future research can include cost benefit analysis on face-to-face and online professional development activities. Also, an analysis can be performed on professional development activities that are created locally as compared to

professional development activities created by a national, credible association. The value perceived for each type may be perceived differently by faculty members. Finally, the length of time required to participate in the professional development activities could be compared.

References

Abuhamdeh, S. (2012). Attentional involvement and intrinsic motivation. *Motivation & Emotion*, *36*(3), 257-267.

Akerlind, G. S. (2011). Separating the 'teaching' from the 'academic': Possible unintended consequences. *Teaching in Higher Education, 16*, 183–195.

Albrkhil, H. (2013). *Computer access, teacher skills, and motivation to take online professional development in the Riyadh school district.* (Doctoral dissertation). Retrieved from ProQuest. (3589942).

Alfano, K. (1993). Recent strategies for faculty and staff development. *Community College Review*, *21*(1), 68.

Allen, E. & Seaman, J. (2009). *Changing course: Ten years of tracking online education in the United States.* The Sloan Consortium. Retrieved from: http://www.onlinelearningsurvey.com/reports/changingcourse.pdf

Allen, E. & Seaman, J. (2010). *Class differences—online education in the United States, 2010*. The Sloan Consortium. Retrieved from: http://sloanconsortium.org/publications/survey/class_differences

Aretakis, R. (2014). *Partnership to build high-speed broadband network in Kentucky.* Louisville Business First. Retrieved from: http://www.bizjournals.com/louisville/news/2014/12/23/artnership-to-build-high-speed-broadband-network.html?page=all

Baruque, L., & Melo, R. (2004). Learning theory and instructional design using learning objects. *Journal of Educational Multimedia & Hypermedia*, *13*(4), 343-370

Berge, Z. L. (1998). Overcoming obstacles to distance education in the k-12 classroom. In J. Baggaley, T. Anderson, & M. Haughey (Eds.), *Partners in Learning: Proceedings of the* 14th *Annual Conference of the Canadian Association for Distance Education* (Vol. 1, pp. 31-32). Athabasca, Canada: Athabasca University

Berge, Z. L. (2008). Changing instructor's roles in virtual worlds. *Quarterly Review of Distance Education*, *9*(4), 407-414.

Berge, Z. L., Muilenberg, L. Y., & Van Haneghan, J. (2002). Barriers to distance education and training: Survey results. *Quarterly Review of Distance Education, 3,* 409-418.

Betts, K.S. (1998). *Factors influencing faculty participation in distance education in postsecondary education in the United States: An institutional study.* Unpublished doctoral dissertation. George Washington University, Washington, D.C.

Brinkerhoff, J. (2006). Effects of a long-duration, professional development academy on technology skills, computer self-efficacy, and technology integration beliefs and practices. *Journal of Research on Technology in Education, 39*(1), 22-43.

Brophy, J. (2010). *Motivating students to learn* (3rd ed.). New York, NY: Routledge.

Bruder, I. (1989). Distance learning: What's holding back this boundless delivery system? *Electronic Learning, 8*(6), 30-35.

Buckley, J. (2011). *Briefing on the condition of education*. Presentation. Retrieved from: http://nces.ed.gov/whatsnew/commissioner/remarks2011/5_26_2011.asp

Casey, D. M. (2008). A journey to legitimacy: The historical development of distance education through technology. *Techtrends: Linking Research & Practice to Improve Learning*, *52*(2), 45-51. Doi: 10.1007/s11528-008-0135-z

Chapman, C. (2009). Faculty can design media-rich online courses. *Community College Week*, 14.

Chen, B. (2009). Barriers to adoption of technology-mediated distance education in higher-education institutions. *Quarterly Review of Distance Education*, *10*(4), 333-399.

Choincel, N., Van Der Veen, R., Wildemeersch, D., and Jarvis, P., (2003). The validity and reliability of focus groups as a research method is adult education, *International Journal of Lifelong Education. 22*:5, 495-517.

Clark, R. E. (1983). Research on learning from media. *Review of Educational Research, 53*(4), 445–459.

Crebbin, W. (1997). Defining quality teaching in higher education: An Australian perspective. *Teaching in Higher Education, 2*, 21–32.

Creswell, J. (2014). *Research design: Qualitative, quantitative and mixed methods approaches.* 4. Los Angeles, Ca: Sage Publications.

Curran, C. (1997). Odl and traditional universities: Dichotomy or convergence? *European Journal of Education 32*(4), 335-346.

Dash, S., De Kramer, R., O'Dwyer, L. M., Masters, J., & Russell, M. (2012). Impact of online professional development on teacher quality and student achievement in fifth grade Mathematics. *Journal of Research on Technology in Education*, *45*(1), 1-26.

Davis, F. D. & Venkatesh, V. (2004). Toward preprototype user acceptance testing of new information systems: Implications of software project management. *IEEE Transactions on Engineering Management*, *51*, 31–46.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*, 319–339.

Daly, C. J. (2011). Faculty learning communities: Addressing the professional development needs of faculty and the learning needs of students. *Currents in Teaching & Learning, 4*(1), 3-16.

Eliasa, S. M., Smith, W. L., & Barneya, C. E. (2012). Age as a moderator of attitude towards technology in the workplace: Work motivation and overall job satisfaction. *Behaviour & Information Technology*, *31*(5), 453-467.

Forsyth, R. (2002). Making professional development flexible: A case study. *Open Learning*, *17*(3), 251-258. Doi:10.1080/0268051022000048246

Francis-Poscente, K., & Jacobsen, M. (2013). Synchronous online collaborative professional development for elementary mathematics teachers. *International Review of Research in Open & Distance Learning*, *14*(3), 319-343.

Gagne, M., & Shepherd, M. (2001). Distance learning in accounting: A comparison between a distance and traditional graduate accounting class. *T.H.E. Journal*, 28 (9), 58-65

Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Education Research Journal*, *38*(4), 915–945.

Garland, M. (1993). Student perceptions of the situational, institutional, dispositional, and epistemological barriers to persistence. *Distance Education, 14*(2), 181–198.

Gravetter, F., Forzano, L. (2012) *Research methods for behavioral sciences.* 4, Belmont, Ca: Cengage Learning

Gross. L. (1989). *Telecommunications: An introduction to electronic media.* Dubuque. IA: Wm. C. Brown.

Guskey, T. R. (1986). Staff development and the process of teacher change. *Educational Researcher, 15*(5), 5–12.

Hall, Pat. (1996). Distance education and electronic networking. *Information Technology for Development, 7* (2), 75-89.

Hammons, J., Wallace, T., and Watts, G. *Staff development in the community college: A handbook.* Topical Paper no. 66. Los Angeles: ERIC Clearinghouse for Junior Colleges, 1978.

Hardré, P. (2012). Community college faculty motivation for basic research, teaching research, and professional development. *Community College Journal of Research & Practice*, *36*(8), 539-561.

Hartnett, M., St. George, A., & Dron, J. (2011). Examining motivation in online distance learning environments: Complex, multifaceted, and situation-dependent. *International Review of Research in Open & Distance Learning*, *12*(6), 20-37.

Helleve, I. (2010). Theoretical foundations of teachers' professional development. In J. L. Lindberg & A. D. Olofsson (Eds.), *Online learning communities and teacher professional development: Methods for improving education delivery*. Hershey, PA: IGI Global.

Higgins, K., & Harreveld, R. (2013). Professional development and the university casual academic: Integration and support strategies for distance education. *Distance Education*, 34(2), 189-200.

Hutchins, K., & Friedrichsen, P. (2012). Science faculty belief systems in a professional development program: Inquiry in college laboratories. *Journal of Science Teacher Education*, *23*(8), 867-887.

Hwu, S. (2011). Concerns and professional development needs of university faculty in adopting online learning. (Order No. 3493794, Kansas State University). *ProQuest Dissertations and Theses*, 280. Retrieved from http://search.proquest.com/docview/919694151?accountid=12553. (919694151).

Institute for Higher Education Policy. (1999). *What's the difference? A review of contemporary research on the effectiveness of distance learning in higher education.* A report prepared for the American Federation of Teachers and National Education Association, 1320 19th Street, NW, Suite 400, Washington, DC 20036.

Irvin, M. J., Hannum, W. H., de la Varre, C., & Farmer, T. W. (2010). Barriers to distance education in rural schools. *Quarterly Review of Distance Education*, *11*(2), 73-90.

Jackson, R. S., Davis, J. H., & Jackson, F. R. (2010). Redesigning regional accreditation: The impact on institutional planning. *Planning For Higher Education*, *38*(4), 9-19.

Jones, J., & Hunter D., (1995). Consensus methods for medical and health services research. *BMJ, 311,* 376-380.

Jurgens, J. C. (2010). The evolution of community colleges. *College Student Affairs Journal*, *28*(2), 251-261.

Kane, T. J., & Rouse, C. (1999). The community college: Educating students at the margin between college and work. *Journal of Economic Perspectives*, *13*(1), 63-84.

Kentucky Community and Technical College. (2013, November 23). Retrieved from http://kctcs.edu/About_KCTCS/KCTCS_Factbook/2012-13_Fact_Book.aspx.

Kidd, P. & Parshall, M. (2000) Getting the focus and the group: Enhancing analytical rigor in focus group research. *Qualitative Health Research*, *10*, 293–308.

Langer, M. (2009). The plain person's guide to course packs. *Cinema Journal*, *48*(3), 87-90.

Larson, D. K. & Sung C. (2009). Comparing student performance: Online versus blended versus face-to-face. *Journal of Asynchronous Learning Network.* 13(1), 31-42.

Lease, A. J., & Brown, T. A. (2009). Distance learning past, present and future. *International Journal of Instructional Media*, *36*(4), 415-426.

Lee, Y., Kozar, K. & Larsen, K. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for Information Systems*, *12*, 752–780.

Li, Y., & Lindner, J. R. (2007). Faculty adoption behavior about web-based distance education: A case study from China Agricultural University. *British Journal of Educational Technology*, 38(1), 83-94.

Lock, J. V. (2006). A new image: Online communities to facilitate teacher professional development. *Journal of Technology & Teacher Education*, *14*(4), 663-678.

Lowe, J. (2001). Computer-based education: Is it a panacea? *Journal of Research on Technology in Education (International Society for Technology in Education)*, *34*(2), 163-171.

Matthews, D. (1999). The origins of distance education and its use in the United States. *T H E Journal*, *27*(2), 54.

Melssac. M. & Gunawardena. C. (1996). Distance Education. In D. H. Jonassen (Ed.).

Handbook of research for educational communications and technology. New York: Simon and Shusler.

Mizell, H. (2010). *Why professional development matters*. Retrieved from: www.leaningforward.org/advancing/whypdmatters.cfm

Minishi-Majanja, M. (2005). The diffusion of innovations theory as a theoretical framework in Library and Information Science research. *South African Journal of Libraries & Information Science*, *71*(3), 211.

Motivating factors related to faculty participation in online education as reported by community college faculty, Dissertation. New Mexico State University, 2008. Print.

Muilenburg, L., & Berge, Z., (2005). Student barriers to online learning: A factor analytic study. *Distance Education, 26*(1), 29-48.

Multimedia Educational Resources for Online Teaching (2014) *Merlot history*, Retrieved from: http://info.merlot.org/merlothelp/index.htm#who_we_are.htm

National Center for Education Statistics. (2002). *Distance education at degree granting post-secondary institutions.* Retrieved April 4, 2014 from http://nces.ed.gov/surveys/peqis/publications/2003017/

O'Banion, T. *Community college staff development programs for the '80s.* Frederick, Md.: Associated Faculty Press, 1981.

Pacardi, C., & Masick, K., (2014) *Research methods: Designing and conducting research with a real-world focus.* Los Angeles, Ca: Sage Publications.

Pagliari, L., Batts, D., & McFadden, C. (2009). Desired versus actual training for online instructors in community colleges. *Online Journal of Distance Learning Administration*, *12* (4).

Papanikolaou, K. A., Grigoriadou, M., Magoulas, G. D., & Kornilakis, H. (2002). Towards new forms of knowledge communication: The adaptive dimension of a web-based learning environment. *Computers & Education, 39*, 333-360.

Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008). Learning styles: Concepts and evidence. *Psychological Science in the Public Interest (Wiley-Blackwell)*, *9*(3), 105-119. doi:10.1111/j.1539-6053.2009.01038.x

Perreault, H., Waldman, L., Alexander, M., & Zao, J., (2002), Overcoming barriers to successful delivery of distance-learning courses. *Journal of Education for Business*, *77*(6), 313.

Perry, E. H., & Pilati, M. L. (2011). Online learning. *New Directions for Teaching & Learning,* 2011 (128), 95-104. doi:10.1002/tl.472

Phillips, D., & Burbules, N. (2000). *Positivism and educational research*. Lanham, MD: Rowman & Littlefield.

Phipps, R., & Merisotis, J. (1999). *What's the difference? A review of contemporary research on the effectiveness of distance learning in higher education*. Washington, DC: The Institute for Higher Education Policy.

Phu, V., Vien, C., Lan, V., & Cepero, J. (2014). Factors driving learner success in online professional development. *International Review of Research in Open & Distance Learning*, *15*(3), 120-139.

Picciano. A. (2002). *Educational leadership and planning for technology*. Upper Saddle River. New Jersey: Pearson Education. Inc. Pinkerton, S.

Restauri, S. L. (2004). Creating an effective online distance education program using targeted support factors. *Techtrends: Linking Research & Practice to Improve Learning*, *48*(6), 32-39.

Richardson, V. (2003). Constructivist pedagogy. *Teachers College Record*, *105*, 1623-1640.

Roblyer, M. D., & Schwier, R. A. (2003). *Integrating educational technology into teaching, Canadian edition*. Toronto: Pearson Education Canada Inc.

Rogers, E. M. (2003). *Diffusion of innovations.* (5th Ed.). New York: Free Press.

Rowell, L. (2013). Academic motivation: concepts, strategies, and counseling approaches. *Professional School Counseling*, *16*(3), 158-171.

Rourke, N., Hatcher, L., (2013). *A step-by-step approach to using sas for factor analysis and structural equation modeling*. 2nd. Cary, NC: SAS Institute. Inc.

Schulman, A. H., & Sims, R. L. (1999). Learning in an online format versus an in-class format: An experimental study. *T.H.E. Journal*, 26(11), 54-56.

Schunk, D. H. (1995). Self-efficacy and education and instruction. In J. E. Maddux (Ed.), *Self-efficacy, Adaptation, and Adjustment: Theory, Research, and Application* (p 281-303). New York, NY: Plenum Press.

Serumola, P. A. (2009). *Improving performance in higher education: An investigation of perspective transformation in teacher professional development programs.* (Order No. 3381592, Syracuse University). *ProQuest Dissertations and*

Theses, 185-n/a. Retrieved from http://search.proquest.com/docview/305082402?accountid=12553. (305082402).

Siddique, A., Aslam, H., Khan, M., & Fatima, U. (2011). Impact of academic leadership on faculty's motivation and organizational effectiveness in higher education system. *International Journal of Academic Research*, *3*(3), 730-737.

Simmons, P. E., Allen, E., Carter, T., Coker, T., Finnegan, B., Crockett, D., et al. (1999). Beginning teachers: Beliefs and classroom actions. *Journal of Research in Science Teaching, 36*, 930–954.

Sivan, E. (1986). Motivation in social constructivist theory. *Educational Psychologist*, *21*(3), 209.

Smeaton, A., & Keogh, G. (1999). An analysis of the use of virtual delivery of undergraduate lectures. *Computers and Education* 32, 83-94.

Smith, J., & Sivo, S. A. (2012). Predicting continued use of online teacher professional development and the influence of social presence and sociability. *British Journal of Educational Technology*, *43*(6), 871-882. doi:10.1111/j.1467-8535.2011.01223.x

Smoot, Daniel (2015). *Governor Beshear, Congressman Hal Rogers Launch Statewide Broadband Initiative, Beginning in Eastern Kentucky*. US Congressman Hal Rogers. Retrieved from: http://halrogers.house.gov/news/documentsingle.aspx?DocumentID=398095

Stein, S. J., Shephard, K., & Harris, I. (2011). Conceptions of e-learning and professional development for e-learning held by tertiary educators in New Zealand. *British Journal of Educational Technology*, *42*(1), 145-165

Sturgis, I., (2012). The online frontier. *Diverse: Issues in Higher Education*, *29*(3), 16-19.

Svinicki, M. D. (1999). New directions in learning and motivation. *New Directions for Teaching & Learning*, *1999*(80), 5

The Sloan Consortium. (2013). *New study: Over 6.7 million students learning online.* Retrieved from: http://sloanconsortium.org/news_press/january2013_new-study-over-67-million-students-learning-online.

The Sloan Consortium. (2014) *About us.* Retrieved from: http://sloanconsortium.org/aboutus.

U.S. Department of Education, National Center for Education Statistics. (2011). *The Condition of Education 2011* (NCES 2011-033), Indicator 43.

Van de Vord, R., & Pogue, K. (2012). Teaching time investment: Does online really take more time than face-to-face? *International Review of Research in Open and Distance Learning*, *13*(3), 132-146.

Wade, W. (1999). Assessment in distance learning: What do students know and how do we know that they know it? *T.H.E. Journal*, 27(3), 94-100.

Wagner, B., & French, L. (2010). Motivation, work satisfaction, and teacher change among early childhood teachers. *Journal of Research in Childhood Education*, *24*(2), 152-171.

Watts, G. E., & Hammons, J. O. (2002). Professional development: setting the context. *New Directions for Community Colleges*, *2002*(120), 5.

Watson, W., & Watson, S. (2007). What are learning management systems, what are they not, and what should they become? *TechTrends*, *51*(2), 28–34.

Wayne, A. J., Yoon, K. S., Zhu, P., Cronen, S., & Garet, M. S. (2008). Experimenting with teacher professional development: Motives and methods. *Educational Researcher*, *37*(8), 479–479.

Wikipedia. (nd). Retrieved April 22, 2015 from: http://en.wikipedia.org/wiki/Barrier

Williams, B., Brown, T., & Onsman, A. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, *8*(3). Retrieved from http://ro.ecu.edu.au/jephc/vol8/iss3/1

Wilson, S. M. (1990). The secret garden of teacher education. *Phi Delta Kappan, 72,* 204–209.

Xiaojing, L., Magjuka, R. J., Bonk, C. J., & Seung-hee, L. (2007). Does sense of community matter? *Quarterly Review of Distance Education*, *8*(1), 9-24.

Yukselturk, E., & Yildirim, Z. (2008). Investigation of interaction, online support, course structure and flexibility as the contributing factors to students' satisfaction in an online certificate program. *Journal of Educational Technology & Society*, *11*(4), 51-65.

Zirkle, C. (2002). Identification of distance education barriers for trade and industrial teacher education. *Journal of Industrial Education, 40*(1). Retrieved from http://scholar.lib.vt.edu/ejournals/JITE/v40n1/zirkle.html

Appendix A

Survey

I. Motivating Factors and Barriers to Taking Online Professional Development: For the following questions, please circle the number that reflects your level of agreement with each sentence

SD=Strongly Disagree; D=Disagree; N=neutral; A=Agree; SA=Strongly Agree

1 2 3 4 5

1. Taking online professional development can improve my teaching performance.
1 2 3 4 5

2. Taking face-to-face professional development can improve my teaching performance.
1 2 3 4 5

3. Taking online professional development can improve my teaching effectiveness.
1 2 3 4 5

4. Taking face-to-face professional development can improve my teaching effectiveness.
1 2 3 4 5

5. Taking online professional development can make creating course content easier.
1 2 3 4 5

6. Taking face-to-face professional development can make creating course content easier.
1 2 3 4 5

7. I find face-to-face professional development useful to me and my teaching career.
1 2 3 4 5

8. I find online professional development useful to me in my teaching career
1 2 3 4 5

9. Learning to create courses and course content in Blackboard was easy for me.
1 2 3 4 5

Appendix A continued

10. Taking online professional development allows me to arrange time for classes more effectively.
1 2 3 4 5

11. The advantage of taking online professional development outweighs any disadvantages.
1 2 3 4 5

12. Taking online professional development allows me to spend more time on non-work related activities.
1 2 3 4 5

13. Taking professional development online allows me to take a class I would otherwise might have to miss.
1 2 3 4 5

14. There are no serious disadvantages to taking an online professional development.
1 2 3 4 5

15. There is little interaction among faculty members in online professional development.
1 2 3 4 5

16. There is little interaction among faculty members in face-to-face professional development.
1 2 3 4 5

17. Technology is beneficial to use in face-to-face classes.
1 2 3 4 5

18. Technology is beneficial to use in online classes.
1 2 3 4 5

19. Administration at the college support professional development.
1 2 3 4 5

20. Taking courses online are too difficult for me.
1 2 3 4 5

21. Mandatory professional development activities are needed for faculty members
1 2 3 4 5

Appendix A continued

22. I use continuing education credits to fulfill my professional development requirements for my PP&E.

1 2 3 4 5

23. I am proficient with technology usage.

1 2 3 4 5

24. I can use a social networking tool such as Facebook, LinkedIn and/or Twitter

1 2 3 4 5

25. I use the Internet primarily as a communication tool for students.

1 2 3 4 5

26. I use technology to create engaging content for my students.

1 2 3 4 5

27. I have Internet access at home

1 2 3 4 5

28. I would prefer to participate in professional development activities online, because a sense of community can be created.

1 2 3 4 5

29. I would to prefer to participate in professional development activities face-to-face, because a sense of community can be created.

1 2 3 4 5

30. I am too busy to take part in an online professional development activities.

1 2 3 4 5

31. I am too busy to take part in a face-to-face professional development activity.

1 2 3 4 5

32. I have experienced adequate training in technology.

1 2 3 4 5

33. I would rather engage in professional development activities in person.

1 2 3 4 5

34. Please list the barriers that you identify with taking professional development online.

Appendix A continued

35. Identify the factors or motivators that would promote you to take professional development online.

II. DEMOGRAPHICS:

1. Age:

O 20-24
O 25-29
O 30-34
O 35-39
O 40-44
O 45-49
O 50-54
O 55-59
O 60 or over

2. Gender:

O Female
O Male

3. Education

O Associate degree
O Bachelor's degree
O Master's degree
O Doctorate degree

4. Teaching Experience

O One Year
O 2-5 Years
O 6-10 Years
O More than 10 years

5. Years of teaching online

O One Year
O 2-5 Years
O 6-10 Years
O More than 10 years

Appendix B

Kathryn Miller
120 Riverfill Road
Pikeville, KY 41501
(606)218-1259

Dear Educator:

I am an associate professor of computer and information technology at Big Sandy Community and Technical College and also an Ed. D. student in the Educational Technology Leadership program at Morehead State University. I am conducting a survey as part of my research for my degree requirements. The purpose of the research is to learn about motivation and barriers that affect faculty participation in online professional development. I am requesting your participation in this survey because you have been identified as an educator in a college/university that is required to participation in professional development activities. Participants will be asked to fill out a survey that will last no longer than 30 minutes. The survey questions are included with this letter. When taking the survey, you will not be required to answer any questions except for questions that you desire to answer. I will be the only person that has access to any survey data.

Your identity will be kept completely confidential to the extent provided by law and your identity will not be shown in the final manuscript. As a result of participating, there are no anticipated risks, nor compensation or other direct benefits to you in completing this survey. You are free to withdraw your consent of participating and may discontinue your participation in the survey at any time without consequence.

If you have any questions about this research protocol, please contact me at (606) 218-2159. If there are questions or concerns about your rights as a research participant, questions may be directed to the IRB Office, 901 Ginger Hall, Morehead State University, Morehead, KY 40351; 606-783-9370 or the HSRB, Office of Research and Policy, Chancellors Office, KCTCS, 300 North Main Street, Versailles, KY 40383.

Please sign both copies of this letter. Return only one copy of the letter to me. The second copy is provided for your records. As a result of signing this letter, you give me permission to report your responses anonymously in the final version of my capstone and to be submitted for publication in a peer reviewed journal.

Kathryn Miller, Doctoral Candidate Kathryn Miller (e-sign) _____

I have read the procedure described above for the motivation and barriers to online professional development survey. I voluntarily agree to participate in the survey and I have received a copy of this letter.

_____ _____
Signature of participant Date

I would like to receive a copy of the final manuscript submitted for publication. **__YES / NO__**
If "yes," please provide an email address to which you would like the electronic copy sent:

Appendix C

Kathryn Miller
120 Riverfill Road
Pikeville, KY 41501
(606)218-1259

Dear AECT member:

I am an associate professor of computer and information technology at Big Sandy Community and Technical College and also a doctoral candidate in the Educational Technology Leadership program at Morehead State University. I am conducting a focus group as part of my research for my degree requirements. The purpose of the focus group is to ensure clarity and pertinence of the survey questions for my research project. The research is focused on motivation and barriers that affect faculty participation in online professional development. I am requesting your participation in this group because you have been identified as a member of the AECT organization. Participants will be asked to answer the research question and send the results to the researcher. Also, a group meeting to review the survey will be done via Google Plus. The meeting will last no longer than 30 minutes. I will be the only person that has access to any survey data.

Your identity will be kept completely confidential to the extent provided by law and your identity will not be shown in the final manuscript. As a result of participating, there are no anticipated risks, nor compensation or other direct benefits to you in completing this survey. You are free to withdraw your consent of participating at any time without consequence.

If you have any questions about this research protocol, please contact me at (606) 218-2159. If there are questions or concerns about your rights as a research participant, questions may be directed to the IRB Office, 901 Ginger Hall, Morehead State University, Morehead, KY 40351; (606)783-9370 or the HSRB, Office of Research and Policy, Chancellors Office, KCTCS, 300 North Main Street, Versailles, KY 40383; (859) 256-3100.

Please sign both copies of this letter. Return only one copy of the letter to me. The second copy is provided for your records. As a result of signing this letter, you give me permission to report your responses anonymously in the final version of my capstone and to be submitted for publication in a peer reviewed journal.

Kathryn Miller, Doctoral Candidate

I have read the procedure described above for the motivation and barriers to online professional development survey. I voluntarily agree to participate in the survey and I have received a copy of this letter.

_____ _____
Signature of participant Date

I would like to receive a copy of the final manuscript submitted for publication. **__YES / NO__**
If "yes," please provide an email address to which you would lie the electronic copy sent

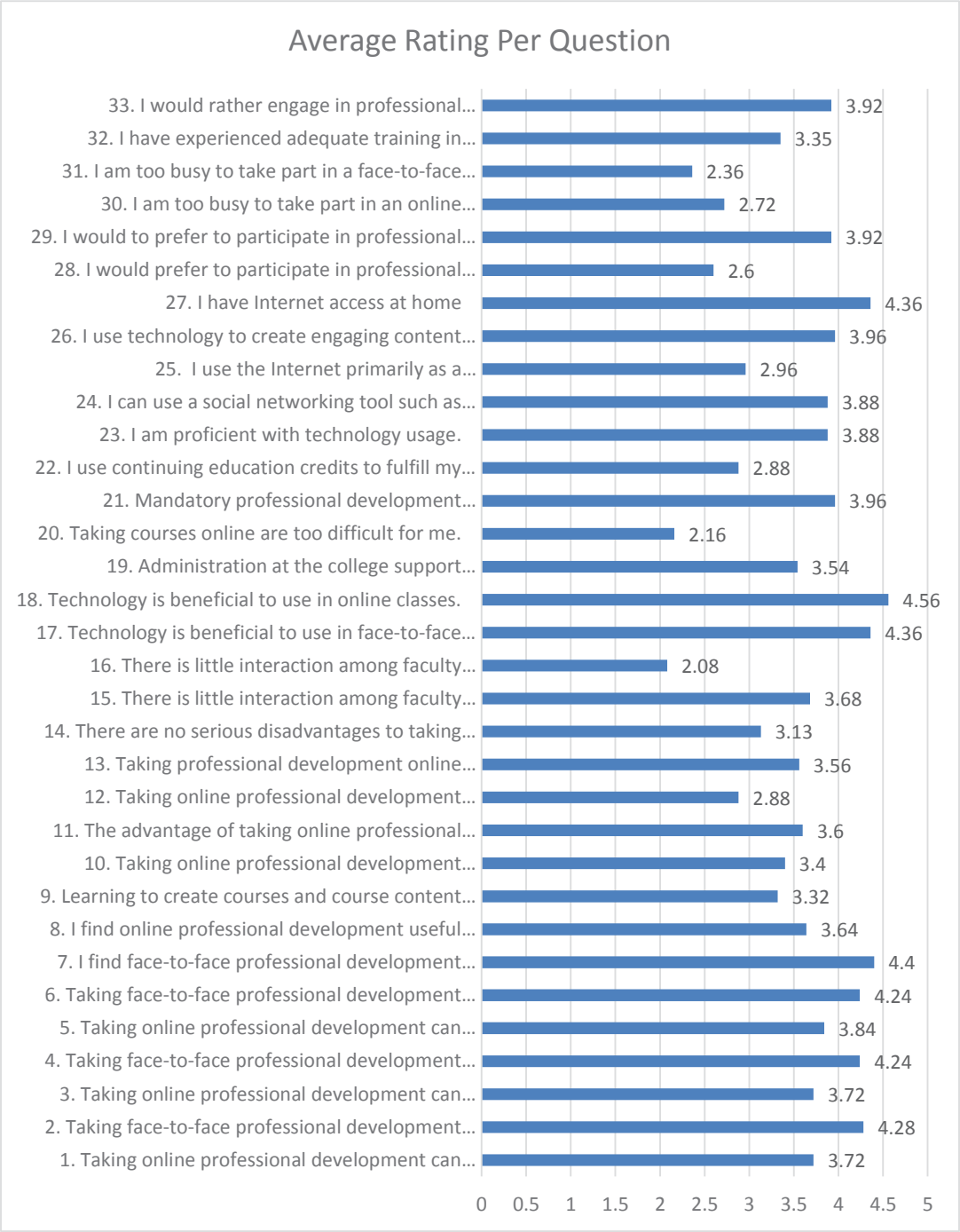
APPENDIX D SURVEY RESPONSES

Survey Responses Answer Choices	strongly disagree	disagree	neutral	agree	strongly agree	response count	-
1. Taking online professional development can improve my teaching performance. (LS1)	0	1	9	11	4	25	3.72
2. Taking face-to-face professional development can improve my teaching performance. (LS2)	0	0	2	14	9	25	4.78
3. Taking online professional development can improve my teaching effectiveness. (LS3)	0	1	9	11	4	25	3.72
4. Taking face-to-face professional development can improve my teaching effectiveness. (LS4)	0	0	3	13	9	25	4.24
5. Taking online professional development can make creating course content easier. (LS5)	0	0	9	11	5	25	3.84
6. Taking face-to-face professional development can make creating course content easier.(LS6)	0	0	1	17	7	25	4.24
7. I find face-to-face professional development useful to me and my teaching career. (LS7)	0	0	0	15	10	25	4.40
8. I find online professional development useful to me in my teaching career. (LS8)	0	2	9	10	4	25	3.64
9. Learning to create courses and course content in Blackboard was easy for me. (LS9)	1	7	4	9	4	25	3.32
10. Taking online professional development allows me to arrange time for classes more effectively. (LS10)	0	5	9	7	4	25	3.64
11. The advantage of taking online professional development outweighs any disadvantages. (LS11)	0	5	6	8	6	25	3.60

12. Taking online professional development allows me to spend more time on non-work related activities. (LS12)	0	8	14	1	2	25	2.88
13. Taking professional development online allows me to take a class I would otherwise might have to miss. (LS13)	0	5	6	9	5	25	3.56
14. There are no serious disadvantages to taking an online professional development. (LS14)	0	10	4	7	3	24	3.13
15. There is little interaction among faculty members in online professional development. (LS15)	0	2	8	11	4	25	3.68
16. There is little interaction among faculty members in face-to-face professional development. (LS16)	7	12	4	1	1	25	2.08
17. Technology is beneficial to use in face-to-face classes. (LS17)	0	1	2	9	13	25	4.36
18. Technology is beneficial to use in online classes. (LS18)	0	1	1	6	17	25	4.56
19. Administration at the college support professional development. (LS19)	2	3	3	12	4	24	3.54
20. Taking courses online are too difficult for me.(LS20)	4	15	4	2	0	25	2.16
21. Mandatory professional development activities are needed for faculty members. (LS21)	0	1	5	13	6	25	3.96
22. I use continuing education credits to fulfill my professional development requirements for my PP&E. (LS22)	3	11	1	6	4	25	2.88
23. I am proficient with technology usage. (LS23)	0	4	1	14	6	25	3.88
24. I can use a social networking tool such as	1	3	4	7	10	25	3.88

Facebook, LinkedIn and/or Twitter. (LS24)							
25. I use the Internet primarily as a communication tool for students. (LS25)	2	10	3	7	3	25	2.96
26. I use technology to create engaging content for my students. (LS26)	0	3	3	10	8	24	3.96
27. I have Internet access at home. (LS27)	0	3	0	7	15	25	4.36
28. I would prefer to participate in professional development activities online, because a sense of community can be created. (LS28)	2	9	12	1	1	25	2.60
29. I would to prefer to participate in professional development activities face-to-face, because a sense of community can be created. (LS29)	0	2	6	9	8	25	3.92
30. I am too busy to take part in an online professional development activities. (LS30)	1	12	6	5	1	25	2.72
31. I am too busy to take part in a face-to-face professional development activity. (LS 31)	3	14	4	4	0	25	2.36
32. I have experienced adequate training in technology. (LS32)	1	5	4	11	2	23	3.35
33. I would rather engage in professional development activities in person. (LS33)	0	2	3	14	5	24	3.92

APPENDIX E


Average Rating Per Question
33. I would rather engage in professional... 3.92
32. I have experienced adequate training in... 3.35
31. I am too busy to take part in a face-to-face... 2.36
30. I am too busy to take part in an online... 2.72
29. I would to prefer to participate in professional... 3.92
28. I would prefer to participate in professional... 2.6
27. I have Internet access at home 4.36
26. I use technology to create engaging content... 3.96
25. I use the Internet primarily as a... 2.96
24. I can use a social networking tool such as... 3.88
23. I am proficient with technology usage. 3.88
22. I use continuing education credits to fulfill my... 2.88
21. Mandatory professional development... 3.96
20. Taking courses online are too difficult for me. 2.16
19. Administration at the college support... 3.54
18. Technology is beneficial to use in online classes. 4.56
17. Technology is beneficial to use in face-to-face... 4.36
16. There is little interaction among faculty... 2.08
15. There is little interaction among faculty... 3.68
14. There are no serious disadvantages to taking... 3.13
13. Taking professional development online... 3.56
12. Taking online professional development... 2.88
11. The advantage of taking online professional... 3.6
10. Taking online professional development... 3.4
9. Learning to create courses and course content... 3.32
8. I find online professional development useful... 3.64
7. I find face-to-face professional development... 4.4
6. Taking face-to-face professional development... 4.24
5. Taking online professional development can... 3.84
4. Taking face-to-face professional development... 4.24
3. Taking online professional development can... 3.72
2. Taking face-to-face professional development... 4.28
1. Taking online professional development can... 3.72
0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

Appendix F

Competitive PD Procedures

Description:

Competitive PD funds are for professional development opportunities for Faculty only. These funds are divided into levels and are awarded based on the decision on the Professional Development Committee and approval of the Provost. Dates and levels will be announced as soon as possible after the beginning of the fall semester. They are also placed on the Big Sandy Website. Please note there are two pools of money for Competitive PD Funds:

1. Funding through the Big Sandy Community and Technical College budget for general education faculty and reassigned technical faculty without teaching duties.
2. Funding through the Perkins Grant for technical education faculty.

Also note that graduate tuition or continuing education unit costs beyond requisite fees for a conference/workshop/seminar/institute will not be considered for funding through either of these funds.

You may submit applications for more than one conference, workshop, seminar, etc. however, you must prioritize these requests. Only one request will be funded for the fiscal year. If more than one application is submitted the Faculty and Staff Professional Development Committee will make the decision based upon funds available.

Again, it is strongly recommended that advance planning take place for these events if you choose to apply.

How to apply:

A. Complete the Professional Development Competitive PD Proposal form. It can be found at the following link https://docs.google.com/forms/d/1a78nbiwPqxn-2oQ6MHvE0CYysVDj09vbJ43e-KD9ddk/viewform?sid=601c5faff6eb802&token=v01CQj4BAAA._-wrM0xy8d0OLgL60too6w.L_pjR4E-xp3qXc4E1h70cQ

B. Do not submit the **Absence/Travel Request Form** providing documented cost estimations and conference registration/flyer/brochure etc until you are

approved for the funding. The committee meets approximately 6 weeks prior to any requested travel giving ample time for the required documents after approval.

C. If you have any questions or need assistance please contact Dr. Richard Roe

Payment for Registration and/or Travel:

1. Registration and airfare must be placed on the college Pro-Card through the Professional Development Coordinator. In order to cut down on confusion you will be required to come in person to the Provost's office and arrange for the registration to be placed on the Pro-Card., attendance to the event is required. In the event that an individual does not attend the professional development opportunity, they will be expected to reimburse the college for the amount of the workshop/conference registration and any other charges placed on the Pro-Card. The college understands that extenuating circumstances may arise, if you cannot attend your conference and it is impossible to get the registration transferred or cancelled, and you feel you have a legitimate excuse, you may request that the Professional Development Committee review your case. Please submit your explanation in writing to the Professional Development Coordinator and the Committee will review your situation and return an answer within two weeks of the date of your submittal.

2. Lodging (See KCTCS Business Procedures Manual Section 8.1.7.A), meals, and other expenses are required to be paid by the individual and then be reimbursed upon return from your trip.

Note: Any charges placed on the College Procard are part of the total funds for which you were approved.

Reimbursement:
Upon return travel vouchers must be received in the Provost's office within two weeks. In the event you are late in doing this, you must have written approval from the Associate Dean over your area to submit for reimbursement. Please include with your travel voucher the following;

1. Original Receipts for all expenses. (Food receipts are not required)
2. Agenda for the meeting attended

Your voucher should be signed by your Supervisor and sent to the Professional Development Coordinator via inter-campus mail; the Professional Development

Coordinator will secure the remaining signatures and send the voucher to the Business Department for processing.

Meals:
According to Section 8.1.7 B of the KCTCS Business Procedures Manual:

In State: You will receive $35 each day of travel with an overnight stay. (For example if you are required to stay over one night you will get a total of $70 for meals)

Note: If meals are provided, you are to deduct for those meals at the following rates; $7.00 Breakfast, $10 Lunch and $18 Dinner.

Out of State: You will receive $45 each day of travel with an overnight stay. (For example if you are required to stay over one night you will get a total of $90 for meals)

Note: If meals are provided, you are to deduct for those meals at the following rates; $8.00 Breakfast, $12 Lunch and $25 Dinner.

Mileage:
The College will cover mileage at a rate of $0.47 per mile for the use of your personal vehicle. The amount of mileage must be included in your original request. Please note that in the event that flying would be more cost effective for the college, you will be reimbursed the amount of the airfare had you flown to the event.

Travel Voucher Forms are the BA3 and BA3B and can be found at the KCTCS web page. http://www.kctcs.edu/businessservices/FORMS/. Please the attached example.

Competitive PD Deadlines:

Competitive PD Deadlines will be announced. **Faculty may submit a request for no more than a maximum of $2000.** The Professional Development Committee will evaluate each submittal for the session. The Committee will rank the requests solely on merit, i.e.… how does it relate to the college strategic plan, what are you going to do to give back to the college. When all submittals are ranked available funds will be examined the committee will fund every event possible with the available funds for that session.

Available funds will be evaluated before and after each scheduled session. Additional dates may be announced contingent upon funding being made available.

VITA

KATHRYN MILLER

EDUCATION

May, 1987	Bachelor of Business Administration Eastern Kentucky University Richmond, Kentucky
May, 2001	Master of Business Administration Morehead State University Morehead, Kentucky
Pending	Doctor of Education Morehead State University Morehead, Kentucky

PROFESSIONAL EXPERIENCES

2009-Present	Associate Professor Big Sandy Community and Technical College Prestonsburg, KY 41653
2007-2009	Assistant Professor Big Sandy Community and Technical College Prestonsburg, KY 41653
2004-Present	Coordinator of Information Technology Program Big Sandy Community and Technical College Prestonsburg, KY 41653
2004-2007	Instructor Coordinator of Information Technology Program Big Sandy Community and Technical College Prestonsburg, KY 41653

PUBLICATIONS

Miller, Kathryn. “The Quality Assurance Initiative's Effect on Barriers for Success and Engagement in Online Education at a Community College.” The Annual Convention of AECT. Hyatt Regency Orange County, Anaheim, CA. Michael Simonson. n.p.: Springer, n.d. Print.