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Student Satisfaction in Hybrid Courses

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Student Satisfaction in Hybrid Courses

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ABSTRACT

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The purpose of this study was to investigate student satisfaction in hybrid education courses as compared to the traditional face-to-face courses. This was done by focusing on 2 main factors involved in student satisfaction: student-instructor connection and student-faculty connection. Other factors such as the students' level of technical experience and influence of outside forces such as jobs and families were also studied.

Students at one community college in Appalachia were involved in this study. Forty-four students participated in this student. They survey included a Likert-type scale and had additional questions on the student's prior experience in online and hybrid education as well as two open-ended questions regarding the advantages and disadvantages of online learning. The survey contained 67 questions.

Statistical analyses of the data revealed: (1) Students who felt more connected with their instructors were more likely to express satisfaction in their online or hybrid courses. (2) Students who felt more connected with other students were more likely to express satisfaction in their online or hybrid courses. (3) No significance in students' opinions regarding having an in-person component in their hybrid courses. (4) Students who were more technologically experienced were more likely to express satisfaction with their online or hybrid courses. (5) A significant difference between the mean and students' overall satisfaction with their hybrid courses showing that overall, students are not satisfied with their experiences. (6) A significant difference from the mean student instructor connectivity score showed that students do not feel

connected with their instructors. (7) No significance between the mean and the student-student

connectivity score. (8) A significant difference between the mean and the technology score

showed that students were not experienced with the technology used in their hybrid courses. (9)

A significant difference between the mean score and the students' opinions of the course design

showed that students do not feel that the course design helped them learn.

DEDICATION

This dissertation is dedicated to those individuals who gave me the support, time, and encouragement throughout this experience. Thank you to my mother who spent time taking care of the dogs so I could work on the project. Thank you to my dogs for understanding (at least I think they did) that I could not be there as much. Also thank you to each of the people who inspired me to continue my education this far.

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CHAPTER 1

INTRODUCTION

Chickering and Gamson (1987) stated, "An undergraduate education should prepare students to understand and deal intelligently with modern life. What better place to start but in the classroom and on our campuses? What better time than now?" (p. 3). College classes whether online, hybrid, or face-to-face should teach and engage the students (Akin & Neal, 2007). Consequently, online courses should be comparable to traditional campus-based courses (Christopher, Thomas, & Tallent-Runnels, 2004) in as many ways as possible.

Schools strive to offer the most effective educational programs online through a combination of flexible, individualized, and challenging courses for their students (Muirhead, 2000). The increasing popularity of online education has created changes in education (Willging & Johnson, 2009) with approximately half of all college students reporting taking an online class within the last year (Pirani, 2013). "Community colleges are increasing their enrollment faster than four-year universities and have also had the highest growth rate in online learning enrollments in higher education" (Ashby, Sadera, & McNary, 2011, p. 128). According to Pallof and Pratt (2007) community colleges continue to have the largest number of enrollments in distance education offerings including online learning.

The reality of the modern world includes using the Internet and technology in everyday lives. Technology has become an integral part of the world and has drawn the global community closer together while pushing us further apart. According to Harris (2010) the majority of educators agree that education is really about preparing students for what will happen when they reach the outside world. In order to prepare students for an interconnected world higher

education must include technology and the Internet in the learning experiences of their students. One way many colleges incorporate technology and the Internet is through the development of online and hybrid courses. However, there are concerns such as learning outcomes, teacher and student training, and student satisfaction about online education and its suitability for the college environment. To address one of those concerns, the study is focused on student satisfaction in hybrid courses.

Statement of the Problem

While distance and online learning cannot replace the traditional classroom, it appeals to a growing number of students for a variety of reasons including convenience, ability to work on your own, etc (Pallof & Pratt, 2007). While many students embrace the courses for their convenience, educators and others express concerns about the experiences of those students and their levels of satisfaction with the courses.

Despite the detractors of online and hybrid courses, the number of students enrolled in these courses continues to grow at a rapid rate (Babb, Stewart, & Johnson, 2010; Bambara, Harbour, Davies, & Athey, 2009; Garza Mitchell, 2009; Pallof & Pratt, 2007; Roach & Lemasters, 2006). Online education has become common place (Paloff & Pratt, 2007); therefore, colleges need to assess not only satisfaction rates among students but also the areas needing improvement to address higher dropout rates in hybrid and online courses (Herbert, 2006). One area for such improvement might be online and hybrid instruction. In Roach and Lemaster's (2006) study students in on-ground courses rated their professors higher on course evaluations than they did those in online classes.

A report by Elluminate (2009) stated, "Content is content. It is the support structure and the overall interaction with the institution that drives student satisfaction. Removing the roadblocks to student access and learning will help ensure success" (p. 5). Educators must take the initiative to assist student adjustment to learning online by finding ways to increase student satisfaction (Rovai, 2002).

Therefore, the purpose of the study is to analyze several aspects of online and hybrid learning and student characteristics to determine their influence on the student's overall satisfaction in the hopes that the community college studied can improve its student retention in online courses as well as the overall satisfaction in the online and hybrid learning environments.

The population for the study derived from a community college with a hybrid learning program that requires classes to meet in person at least once per semester, although some classes require more. Many college administrators believe that adding in person or synchronous interaction (which may or may not be in person) provides great advantages to the students (Babb et al., 2010; Elluminate, 2009). According to Elluminate (2009) blended or hybrid approaches resulted in students having better grades and higher completion rates; however, others found that an in-person component could prove detrimental to the development of online communities (Pallof & Pratt, 2007). Babb et al. (2010) stated that hybrid courses combined online and traditional classes, and should bring forward the best aspects of both formats. One aspect of this study was focused on student experiences in online and hybrid courses to determine whether the in-person requirement of the class is beneficial to their learning experiences and increases their overall course satisfaction.

For the purposes of this study the online and hybrid learning areas examined included student-student interaction, student-teacher interaction, and the hybrid format used in the chosen

community college. A review of previous research revealed that student opinion on the interaction and the connectivity with the classmates and their instructor could greatly influence overall satisfaction in online and hybrid courses (Bambara et al., 2009; Burnett et al., 2007; Garza Mitchell, 2009; Herbert, 2006; Koole, McQuilkin, & Ally, 2010; Roach & Lemasters, 2006). Therefore, the study assessed student levels of satisfaction with the interaction with their instructor and classmates compared to their overall course satisfaction.

Several student characteristics that have also been noted to influence student satisfaction in online and hybrid courses include technological experience, age, prior experience in online or hybrid courses, and employment status. Previous studies noted the influence of these characteristics on the higher dropout rates in hybrid and online courses (Bambara et al., 2009; Burnett, Bonnici, Miksa, & Kim, 2007; Funk, 2005; Garza Mitchell, 2009; Jafari, McGee, & Carmean, 2006). Each characteristic can influence the students' overall satisfaction with the course as well as their ability to complete the course. This study provided an analysis of each of these characteristics in relation to students' overall course satisfaction.

For the purposes of this study the online and hybrid learning areas included student-student interaction, student-teacher interaction, and the hybrid format used in Tennessee community colleges. A review of previous research revealed that student opinion on the interaction and the connectivity with the classmates and their instructor could greatly influence their overall satisfaction in online and hybrid courses (Bambara et al., 2009; Burnett et al., 2007; Garza Mitchell, 2009; Herbert, 2006; Koole et. al, 2010; Roach & Lemasters, 2006). Therefore this study provided an analysis of student levels of satisfaction with the interaction with their instructor and classmates compared to their overall course satisfaction.

Research Questions

The following research questions guided the direction of this study:

1. Is there a significant correlation between the degree to which students feel connected to their instructor and their satisfaction with hybrid courses?

2. Is there a significant correlation between the degree to which students feel connected to other students in their online class and their satisfaction with hybrid courses?

3. Do students find an in-person component of an hybrid class important to their success in hybrid courses to a significant extent?

4. Is there a significant correlation between students' technological expertise and satisfaction with hybrid courses?

5. Are students satisfied with their hybrid courses to a significant extent?

6. Do students feel connected with their instructor to a significant extent?

7. Do students feel connected with their classmates to a significant extent?

8. Are students comfortable with the technology used in hybrid classes to a significant extent?

9. Do students feel that the design of the course helped them learn to a significant extent?

Significance of the Study

This study may benefit faculty and administrators in community colleges and universities who are interested in developing quality online and hybrid courses and in reducing the dropout rates in those courses. This study is designed to identify characteristics of at-risk students in online and hybrid classes and provide student perceptions of interaction with faculty and other students in online and hybrid classes.

Definitions of Terms

The following working definitions will be used in this study.

Asychronous online class. An online class with no real-time meetings and all requirements completed online.

Distance education. A class offered outside of the traditional college class format, including classes offered at off-campus locations and classes offered through a variety of nontraditional formats, such as telecourses or Internet courses.

Hybrid class. A class that has both in-person (face-to-face) meetings and online requirements. Allen and Seaman (2010) defined hybrid classes as having between 30% and 80% of the course content delivered online.

Older student. A student over age 25, sometimes referred to as nontraditional.

Online class. A class that meets entirely online with no in-person meetings.

Synchronous online class. A class that requires real-time meetings online in place of classroom learning.

Technological experience. The amount of prior computer experience of a student.

Traditional class. A class that meets entirely in-person with no online requirements.

Younger student. A student age 25 or less, sometimes referred to as traditional.

Delimitations and Limitations

This study is focused on a community college in Appalachia. While it may provide valuable information for administrators and professors at other colleges, it may be difficult to generalize findings to other settings. The study covered students enrolled during only 1 semester at the selected community college; therefore, findings may not be generalizable to students in

other semesters due to changing enrollments. The number of students participating was very low and that is a limitation of the study. There is a possibility that students choosing not to complete the survey would have offered information that could have changed the outcome of the study. Using a survey is a delimitation because students can self-select their participation.

Organization of the Dissertation

This dissertation begins with a brief overview of the topic in Chapter 1. It continues with a review of the literature in Chapter 2, followed by the methodology in Chapter 3. Chapter 4 presents the results of the study. Chapter 5 gives an overall conclusion and suggestions for further study.

CHAPTER 2

LITERATURE REVIEW

Introduction to Online and Hybrid Education

Between 1990 and 2013 distance education developed and continues to develop into

online education (Garza Mitchell, 2009). Universities began using email and asynchronous text-

based conferencing as early as the mid-1970s with the first online courses beginning in the

1980s. Since the 1980s online education has developed into a popular learning format due to the

convenience and accessibility issues that often prohibit people from attending traditional classes

(Conrad & Donaldson, 2011; Koole et al., 2010). Significant changes have occurred in online

learning since the late 1990s (Pallof & Pratt, 2007). One major change is the addition of hybrid

classes that combine online and traditional classroom elements to provide an experience that can

be the best of both worlds (Babb et al., 2010).

Many students and professors prefer online education (Babb et al., 2010; Cobb, 2009;

Ioannou & Hannafin, 2008, Pallof & Pratt, 2007; Roach & Lemasters, 2006; Skylar, 2009).

According to Jafari et al. (2006) online and hybrid courses have "exploded in higher education"

(p. 50). Roach and Lemasters (2006) reported a rapid growth of online learning in colleges with

the number of online courses and programs increasing at a rapid rate. Due to the popularity and

prevalence of online classes, the number of students signing up will likely continue to grow

(Cobb, 2009; Pallof & Pratt, 2007). The growth and popularity of the Internet made a significant

impact on human interactions and the development of community (Pallof & Pratt, 2007), and

online learning has become one of the outgrowths of this popularity. As an added bonus, the

expansion of online education has removed many barriers to higher education such as distance and time constraints (Pallof & Pratt, 2007; Roach & Lemasters, 2006).

As with any rapid growth the impact of online education is difficult to see immediately. Researchers must take time to analyze and understand how this phenomenon changes not only the classroom and the college but also the students themselves. Studies showed that distance courses were no less effective than traditional courses based on the learning outcomes, and that students generally reported satisfaction with their online education experiences (Babb et al., 2010; Cavanaugh, 2005). Online education is at least as good as traditional, classroom-based, instruction, but the issues that students experience in online classes are different than those in traditional classes (Kingma & Keefe, 2006). One of the more critical issues in online learning is the higher attrition rates compared to face-to-face courses (Rovai, 2002).

In the modern era online education is much more accepted and an integral part of many colleges and universities. Hundreds of colleges now offer entire programs as well as individual classes online (Smith & Winking-Diaz, 2004) with the majority of students taking online courses at the community college level (Pallof & Pratt, 2007; Roach & Lemasters, 2006). Nationally the number of students enrolling in online courses has grown exponentially as has the number of colleges offering online and hybrid courses (Babb et al., 2010; Garza Mitchell, 2009; Pallof & Pratt, 2007; Rovai, 2002). In 2007 nearly 20% of college students took an online course and those numbers continue to grow (Tapscott, 2009).

Students want more choices and more options and mention the ease of submitting assignments, fewer transportation issues, cost savings, and flexibility as positive aspects of the online learning experience (MacDonald & Thompson, 2005, Roach & Lemasters, 2006). To the modern student, particularly those of traditional age, online environments are familiar and

students choose much of what they do in online communities. One of those choices includes the selection of a college that offers online programs. Colleges that use online and hybrid instruction methods may find that students continue online classes even when other options are available or after they finish their degree (Garza Mitchell, 2009). They may see online communication as a continual process that does not end when the course is over (MacDonald & Thompson, 2005).

Students demand more options for courses that fit within their schedules and goals, and colleges are meeting those demands. Many students attend online courses, study part-time, take courses from multiple universities, and jump in and out of colleges (Chronicle Research Services, 2009). Consequently, colleges view online instruction as a way of reaching out to students, particularly those unable to come to the campus regularly. Online education allows a college to expand its student body and provide community outreach (Garza Mitchell, 2009).

Modern students are more familiar with technology and more willing to find their own answers instead of waiting for the teacher to tell them the correct answer. They avoid traditional forms of education and incorporate their learning into the electronic tools in their everyday lives, such as smartphones, laptops, iPods, and MP3 players (Chronicle Research Services, 2009). Traditional classroom structure does not work for many of today's students who process information differently and require increased attention and active learning strategies (Williams & Chinn, 2009).

Today's students are part of the technological age, comfortable using the Internet, playing video games, interacting with televisions and computers. They have little interest in sitting still and listening to a lecture. Rather, they want to participate in the educational process actively (Harris, 2010). These students find their own answers, surf the net during class, and interact with technology at all times (Chronicle Research Services, 2009). Many students want schools to

embrace available technology and stop blocking it from the educational experiences. They expect access to classes from cell phones and other portable devices, they want discussions, communications with professors, lectures, study groups, and paper submissions to be online, and they want to complete coursework at times convenient for them. On the other hand, some students still want to learn the old fashioned way in a classroom, thus colleges must continue traditional methods of instruction while developing online programs and classes.

Community colleges have been at the forefront in developing and offering online courses (Garza Mitchell, 2009). However, even with numerous community colleges offering online and hybrid classes, researchers know little about the way in which students perceive their experiences in distance education. Students taught in hybrid courses generally achieve higher scores on exams, learn in less time, and have more positive attitudes toward learning than do those in traditional courses (Tapscott, 2009); on the other hand, research reveals that online and hybrid classes have higher rates of student withdrawal and course failure than those in traditional formats (Bambara et al., 2009).

> With only about three-quarters of the students in the distance-based environments completing all assignments, the problem with attrition is evident and had an observable impact on student outcomes. Among students that completed all assignments, the online students had the highest success rate (85%). (Ashby et al., 2011, p. 138)

Although many colleges currently offer online classes, a large number of faculty and staff as well as some students express fear and distrust of the online experiences (Garza Mitchell, 2009; Muirhead, 2000). Learning in an online environment differs from learning in a traditional classroom and can be a difficult acclimation for some people (Garza Mitchell, 2009). Other

faculty members may view online and hybrid education as the future of education because students do not have the ability or time to attend traditional classes (Garza Mitchell, 2009).

This study was focused on three specific topics that might influence student satisfaction in online courses: interaction (student -student and student-instructor); hybrid format; and student characteristics (technological experience, age, prior experience, and employment status). The next sections of the literature review cover each of these topics in relation to student satisfaction in online courses.

Student-Student Interaction

In discussing interaction in online courses, Babb et al. (2010) noted, "If courses are nothing more than content, then all students would need is their textbook" (p. 736). The majority of college professors and students know that learning is more than reading a textbook. Good learning is not in isolation, it is collaborative and social (Pallof & Pratt, 2007). Working with others improves the learning environment and increase overall learning. Sharing ideas and thoughts while responding to others' reactions sharpen the students' thinking and deepen their understanding (Chickering & Gamson, 1987). Education is much more than learning material from a book. It is interacting, developing ideas, understanding, and collaborating (Sorden & Munene, 2013).

Isolation

Because we are social beings and that drives our learning, socialization is an important part of the learning experience (Pallof & Pratt, 2007), and an online environment can be very

lonely. Students often report intense feelings of isolation, loss of contact, and absence of connection when working online.

Students often choose online courses because they can access the course at any time and from any place. They may not realize this can be a detriment because with online interaction, all they see are words on a screen and maybe a photograph of that person (Pallof & Pratt, 2007). Students in online classes may experience a reduced sense of community, feelings of disconnection, isolation, and distraction, and lack of personal attention, which might affect their persistence in distance education courses (Rovai, 2002).

While learning in isolation is possible, the impact of student-to-student interaction on the learning experience greatly enhances the learning outcomes of an online course (An & Levin, n.d.). Lack of interaction can be a huge challenge for the online course experience (Tyler-Smith, 2006), and professors need to develop a sense of community within their class to help students feel connected to each other and avoid isolation issues (MacDonald & Thompson, 2005; Roberson & Klotz, 2002; Rovai, 2002). Reducing feelings of isolation and providing students with more academic support can lead to increased retention in online courses (Rovai, 2002). The instructor should design the course to create a sense of community and remind students about their responsibility to participate (Pallof & Pratt, 2007).

Social Presence

In order to be effective, online instruction requires opportunities for students to interact with other students (Dixson, 2010) and provides students with the ability to establish a social presence or identity in the online forum (Babb et al., 2010; Pallof & Pratt, 2007). Social presence involves the ability to portray oneself as a real person in an online environment (Pallof

& Pratt, 2007). Social presence helps learners to create and project themselves online and feel

and be a part of a community (Sorden & Munene, 2013). Students in a face-to-face class often

gather before and after class in the student center or the hallways and continue their learning

experiences through those interactions. Online students may not have the ability to gather in

person but they should gather online in a similar way. In order for this to work the online

students must establish a sense of presence or an online personality to reveal who they are to

others. While there is an element of anonymity of the online class, which can create a sense of

freedom, but without facial expressions and body language to help gauge responses, it can be

difficult to grasp that freedom. Because online courses rarely let students see the person with

whom they communicate, the classes become less personal with diminished social presence and

social context cues, which reduces the overall sense of community (Rovai, 2002). Without cues

and with no face-to-face contact, the sense of group in the community can be very fragile,

especially in the beginning. Progress towards developing a social group within an online class

can disintegrate quickly when problems occur (Pallof & Pratt, 2007). The professor and students

can see emerging social presence when students begin using personal forms of address,

acknowledging others, expressing humor, and using emoticons and symbols for expression.

There should be active interaction involving content and personal communication, collaborative

learning between students, sharing of resources, expressions of support and encouragement

between students, and willingness to evaluate the work of others critically.

Increased Personal Interactions

One benefit of online classes is that the number of personal interactions is no longer

limited by the availability of time before or after class. Computers allow students to

communicate with others in their online class at any time, which sets online education apart from the traditional classroom setting. However, appearance, cultural, ethnic, or social backgrounds are invisible to classmates unless the student shares that information. This makes online communication the "great equalizer" (Pallof & Pratt, 2007). As students interact with and learn from each other, they collaborate and often gain more from the experience than they thought they would.

Part of the classroom experience whether online or in person is engagement (Akin & Neal, 2007), and educators agree the key to an effective online course is learner interaction (Conrad & Donaldson, 2011). Students need to connect with other students to feel part of the class and to gain the greatest advantage. Humans are social creatures and interacting with others is part of our social nature online as well as in the real world (Lehman & Conceição, 2010). Online learning communities cannot exist unless members communicate. Through these interactions the members of the group develop an understanding of the material and become mutually responsible for learning (Pallof & Pratt, 2007). Roach and Lemasters (2006) found that peer interaction was an important element in online learning and student-student interaction related to the students' performance satisfaction. Social interaction is vital to the academic experience whether in person or online. According to Babb et al. (2010), students who enjoyed interacting with others in the class, discussing course material, and sharing opinions and views felt more satisfied with their performance online.

Safe Atmosphere

Students usually need to connect with each other but they may not feel comfortable with interaction in an unfamiliar environment with unfamiliar people. The professor should ensure

development of a sense of safety and trust in the online environment. Students need to feel

comfortable with other participants in the group and trust those persons are who they say they

are. They also need to know that messages posted will receive honest and open feedback (Pallof

& Pratt, 2007). "Factors such as student knowledge and personality, communication patterns,

reluctance to criticize, fear of criticism and retaliation, and unwillingness to give honest feedback

may negatively affect sense of community by reducing feelings of safety and trust among

learners" (Rovai, 2002, p. 5). Students want to know their posts will receive care, connection,

and trust. In order for this to happen, members must be honest with each other and with the

instructor. When a professor creates an atmosphere of openness and trust, students are free to

share without fear of retribution, especially retribution based on differing opinions.

Role of the Professor

Professors sometimes complain about the absence of interaction among their students and

are unsure how to increase the level (Pallof & Pratt, 2007). Educators should create guidelines

about professional communication and how often students should participate to keep students

aware of the communication requirements. While instructors have an important role in

developing interaction, students have a responsibility as well. By developing a learning

community students can deepen their experience, test new ideas by sharing them with a

supportive group, and receive constructive feedback. The instructor should encourage giving

constructive feedback or even require it as part of the course grade throughout the term.

Some educators wonder if an online format provides adequate opportunities for genuine

dialogue and social interaction (Muirhead, 2000). Learner involvement in the course keeps the

course from becoming a correspondence course and decreases the risks of potential learner

isolation and higher dropout rates (Conrad & Donaldson, 2011). The learner must put forth an effort to develop and maintain a sense of community within the online course (Rovai, 2002). Learning in distance education must be active. If students do not participate in the online classroom, the instructor has no way of knowing whether they attended (Pallof & Pratt, 2007).

"Educators who perceive the value of social bonds in the learning process must re-conceptualize how a sense of community can be stimulated in virtual classrooms" (Rovai, 2002, p. 3). Students often know how to develop online interactions with others through the Internet (Christopher et al., 2004); however, the development of the student-to-student interaction does not simply occur naturally in online courses, it must be incorporated into the class and the instructor must ensure that students have that interaction (Akin & Neal, 2007; Conrad & Donaldson, 2011, Roach & Lemasters, 2006). Faculty must be willing to spend extra time to ensure that the sense of community develops and that students are comfortable enough to ask the professor questions and communicate their needs (Rovai, 2002). Conflict may occur naturally within the community because of the difficulty of expressing emotion in an online medium as well as the difficulties due to the absence of verbal, facial and body cues. On the other hand, professors might also need to create conflict within the class to encourage communication and the understanding of different viewpoints within the learning environment (Pallof & Pratt, 2007).

Developing Social Interaction and Learning Communities

Early social interaction in a course creates a feeling of trust and community that is vital throughout the term (Conrad & Donaldson, 2011). Online instruction should allow equal participation opportunities for everyone and this should be set early in the semester. One of the common techniques to reduce anonymity and connect students is to have participants introduce

themselves (Rovai, 2002). The instructors should be aware of the knowledge students can acquire through interaction and communication with other students in the online classroom (An & Levin, n.d.; Babb et al., 2010, Conrad & Donaldson, 2011) and carefully plan to encourage community building (Conrad & Donaldson, 2011; Gulati, 2004; Kelly, n.d.a; MacDonald & Thompson, 2005; Muirhead, 2000; Roberson & Klotz, 2002). Ensuring interactivity and participation is an important part of the role of an instructor in online courses (Conrad & Donaldson, 2011), and the course should offer continued opportunities for discussion throughout the semester (Babb et al., 2010). Failure to do so can result in loss of student attention, frustration, and information overload (Berge, 1996) while raising questions regarding the quality of online education (Muirhead, 2000). When social interaction is absent in an online course, it can lead to a higher dropout rate (Muirhead, 2000). Relationships are an important element of online communication and can affect the learning process positively (Pallof & Pratt, 2007). Sorden and Munene (2013) found that students who collaborated with other students were more satisfied with their hybrid course experiences.

According to Pallof and Pratt (2007) the key to successful online learning is developing an effective learning community wherein students are more likely to participate. In an interactive online course higher participation and student engagement lead to a better learning experience (Akin & Neal, 2007). Interactive tools such as chat rooms, e-mails, listserv, and discussion and bulletin boards can maintain high levels of communication within the class membership and promote greater interactivity, which, in turn, allows students to feel more like members of a community (Roberson & Klotz, 2002). Interactivity can be immediate such as in a chat room or phone call or delayed such as an email or discussion forum (Muirhead, 2000). While some students express frustration due to delayed responses in discussion forums or emails,

engaged students actively participate in a learning situation and gain more knowledge from being a member of a community (Conrad & Donaldson, 2011).

One popular method for creating a sense of community and connecting students is small group work. The goal in small group work is that students become meaningfully engaged in a variety of learning activities such as student or teacher led discussion groups, debates, projects, and collaborative learning groups. When a professor incorporates small group work with individual assignments, it promotes a sense of community by helping students connect (Rovai, 2002). "The most powerful experiences are those in which interaction occurs throughout the group instead of between one participant and the facilitator within a group setting" (Pallof & Pratt, 2007, p. 21).

Quality Interaction

Good teachers know how to speak well, get their points across, and encourage students to speak to each other. Exceptional teachers do not just want to get students speaking, "they wanted them to think and learn how to engage in an exchange of ideas" (Bain, 2004, p. 126). This is important in traditional face-to-face classes but even more so in online and hybrid courses. According to Burnett et al. (2007) students perceived that interaction with classmates was useful, helpful, and important for the learning process in online education. The less frequent the interaction between students the more likely those students will express dissatisfaction with the course. Communication between students provides meaningful dialogue within the online course environment (Muirhead, 2000) and increases the students' overall satisfaction with the course (Babb et al., 2010). Courses should provide ample opportunities for students to converse (Babb et al., 2010). Students stressed the importance of interacting with their peers in numerous

studies (Babb et al., 2010; Bambara et al., 2009; Burnett et al., 2007; Lehman & Conceição, 2010; MacDonald & Thompson, 2005). Students need a connection with other students to complement course instruction, and when it is not present, it can produce difficulties (Bambara et al., 2009; Lehman & Conceição, 2010) and reduce student satisfaction with the learning environment (Babb et al., 2010).

"Learners express the desire to be emotionally interconnected with other people even when they can't see them" (Lehman & Conceição, 2010, p. 10). The personal interactions with others allow the students to feel a sense of presence in the online course and to adjust to the online environment. Student engagement is critical in an online learning environment and the lack can contribute to withdrawals and dropouts (Tyler-Smith, 2006). There is a missing link in online education when students are not able to experience the sense of community created in a traditional face-to-face course (Roberson & Klotz, 2002; Rovai, 2002). Interaction among learners also supports the learning process. Learning represents the common purpose of the community as members of the community grow to value learning and feel that their educational needs are being met through active participation in the community (Rovai, 2002). In addition to the quantity, the quality of the online conversations and interaction influence the development of a sense of community.

Student-to-student interaction can greatly enhance online education. Learning through online class discussions and other interactive experiences can augment overall learning experiences (An & Levin, n.d.). By its very nature online education and conversations differ from traditional face-to-face communications and discussions (Gulati, 2004), and some students may require time to learn how to interact with others and foster development of the student-to-student connection (Roach & Lemasters, 2006). However, once developed this sense of

connectedness can lead to improved motivation and attitudes, increased completion of assignments, better performance on tests, and greater retention. It also provides a sense of community for students (Elluminate, 2009). Greater interactivity among students enhances learning, develops group synergy, and creates culture (Roberson & Klotz, 2002). Critics of online education stress that many distance education courses lack interactivity (Muirhead, 2000), that can affect the learner's ability to cope with the online learning environment (Rovai, 2002).

According to Herbert (2006), "A critical issue in retention in online courses is related to a student's sense of belonging" (p. 2). Many students report willingness to interact with other students in their online classes but note little interaction due to the online format (Koole et al., 2010). According to one student the lack of interaction was simply the cost of not having to go to school (Bambara et al., 2009). "With asynchronous distance education programs, students often experience a feeling of isolation" (Elluminate, 2009, p. 2) due to working independently and having little contact with other students. Isolation can be detrimental to learning. Some instructors believe that lack of interaction devalues education and negates human contact, which is detrimental to the overall educational experience (Funk, 2005). Some participants stated they used discussion boards but had limited meaningful interaction. Others simply downloaded all the course documents and took the course offline with no interaction with others. When there is no chance to hear the perspectives of other students, there is no opportunity to learn from each other. Students reported no sense of community, remarking they were alone in their coursework, which intensified their sense of isolation (Bambara et al., 2009; Rovai, 2002). The risk of isolation is real and the inability to see, hear, and actively engage their classmates in verbal conversation can cause a sense of isolation or even true isolation from the group (Pallof & Pratt, 2007).

In MacDonald and Thompson's 2005 study half of the learners were either unsure or did not think they had enough interaction with others in the online class. According to Herbert (2006),

> A critical issue in online courses is related to a student's sense of belonging. The group dynamics of online learning are an important factor in creating a safe and comfortable learning environment. Students in online courses should feel comfortable communicating and expressing themselves. (p. 2)

It is essential that students have personal contact with other students and engagement in the course (Ammendolia, n.d.). Students can develop good rapport with other students and a support system within the class (Smith & Winking-Diaz, 2004). Instructors can foster community through the quantity and quality of interaction (Rovai, 2002), developing rich environments for student-to-student collaboration (Smith & Winking-Diaz, 2004).

The most common form of student engagement in online courses is that of discussion forums created by the instructor (Akin & Neal, 2007). Students who participate in these online group discussions can develop relationships that last past class meetings and sometimes even students who do not participate, also known as lurkers, may contribute on occasion (Burnett et al., 2007). Group discussions in online learning can create safe and comfortable learning environments wherein students can communicate and connect with the course and their classmates (Herbert, 2006). Some evidence suggests that higher interaction levels in online classes could positively correlate with retention and student satisfaction (Burnett et al., 2007; Herbert, 2006). However, while learner interaction is an essential element in developing a sense of community, it is not the full solution (Rovai, 2002).

Motivation

Motivation can also be a key issue. When students have less active interaction, their motivation has to come from within. Some students are not able to be self-motivated and are, therefore, less successful in their online classes (Bambara et al., 2009). Motivation comes as much from the support of other students as from within (Berge, 1996). Students want to interact, be a part of a learning community, and get to know each other in the online class much as they would in a traditional class (MacDonald & Thompson, 2005; Stodel et al., 2006). Students who have the opportunity to interact with other students are better able to make sense of what they are learning. Because learning takes place in a social context with shared understanding, students can develop critical judgment and solve problems (Berge, 1996). On the other hand, students must do more than converse; instead, they must demonstrate their knowledge by discussing the curriculum and material in an intelligent and thoughtful manner (Smith & Winking-Diaz, 2004).

Class Size and Interaction

Class size is important in distance education; larger classes may overwhelm students and generate too much material for the students to read and process. However, if enrollment is low, it is almost impossible for meaningful interaction to occur. The best class size varies from 21 to 29 students in each section (Kingma & Keefe, 2006), which encourages students to learn about classmates and develop a sense of community. Randolph and Crawford (2013) found that fostering a sense of community was integral to creating successful online courses and a lack of sense of community might be the reason for higher attrition in online courses. Both the professor and the students influence community-building but, ultimately, it is the responsibility of the

professor to create online assignments that require participation, engagement, and interaction among classmates (Babb et al., 2010; Rovai, 2002; Smith & Winking-Diaz, 2004).

According to Roach and Lemasters (2006), course size and number of instructors is an integral part of the puzzle when discussing student satisfaction with instructor interaction. Online courses consumer more instructor time than traditional courses due to the amount of individual attention the students require and receive from the instructor. Larger class sizes can have a negative impact on the students and the quality of the educational experience (Kingma & Keefe, 2006). Faculty members believe that lower course enrollments provide a better learning experience because they are able to interact with the students and offer timelier feedback.

Student-Student Interaction Conclusion

"Without the support and participation of a learning community, there is no online course" (Pallof & Pratt, 2007, p. 40). Siemens (2004) said that, if learning was content-based then a simple learning management system would suffice, but when interaction and connections become valuable to learning, instructors should consider other options. Students in online classes prefer programs and websites with which they are familiar, such as Facebook, Twitter and Skype. They would like to see these tools integrated into online courses because they use them in their personal lives (Jafari et al., 2006). Concerns about isolation can lead to feelings of separation and disappointment that can negatively affect learning, experience in the online course (Shelton & Saltsman, 2004; Stodel et al., 2006), and retention (Bambara et al., 2009; Herbert, 2006). Some studies reported that online courses had a 10%-20% higher dropout rate than traditional classes (Herbert, 2006), others noted a 7% higher dropout rate (Garza Mitchell, 2009), and still others disputed these findings (Cavanaugh, 2005).

The energy level created by response time differs in an online course and some students consider that negatively—they want to learn and experience things without waiting for someone to respond. They want to feed off each other's energy and understand their emotions (Stodel et al., 2006). This can prove difficult in an online class where students must wait for others to respond in their own time instead of in real-time discussion. Students who developed relationships with classmates created a community, connecting with persons who could guide them in the right direction if they felt lost. However, even an established connection between classmates in an online class is often not as strong as in a traditional class because students are unlikely to meet after class for coffee or walk to their cars together. Experiences outside a traditional classroom often create greater connections than what is experienced in the online classroom. There is greater potential for contact time online, yet students do not often take advantage. They fail to use the online chat programs, other course options, or outside options such as Facebook for idle conversations or developing relationships (Stodel et al., 2006).

According to Bambara et al. (2009) some students and professors noted lack of interaction was detrimental to the online learning experience. Others, however, viewed interaction as less important, stating they were independent and preferred working alone. Some may consider active participation in course discussions and activities difficult and unwanted due to discomfort with sharing online (Gulati, 2004), or language concerns, such as not reading sarcasm, or even fear of the permanency of online language (Tolan, n.d.). Also, missing visual cues can make it difficult for learners to understand online communication and the approachability of other students (Conrad & Donaldson, 2011). Some learners who expressed a desire for more face-to-face interaction early in the semester became accustomed to the online

environment and interaction after several weeks, gaining a comfort level (MacDonald &

Thompson, 2005).

Too much interaction in the course may overwhelm some students, especially if more

than 25 students participate in the discussions and interactions. It can be difficult for a student to

keep up with that much material. Professors can alleviate this potential problem by creating

small groups within the course for more intimate and higher quality interaction (Panagopoulos,

n.d.). Although lack of human interaction and communications are part of the online learning

environment, Willging and Johnson (2009) found this was not the primary reason students left

the program.

Student-Instructor Interaction

"While we don't want to be in the stand-up comic business, we can make it clear to

students that we're not a robotic part of the machine with a square screen" (Norin & Wall, n.d.,

p. 15). This can begin with a simple introduction to the course and an email or other form of

contact letting the student know that their professor is human, friendly, available, and concerned

about their students (Sull, n.d.). Meaningful communication between instructor and student is a

key part of the learning experience in online classes (Conrad & Donaldson, 2011) and vital to the

online learning process (Roach & Lemasters, 2006). Effective communication in an online or

hybrid course must include development of a social presence in the online forum for both faculty

and students to create and maintain effective interaction (Babb et al., 2010). "The instructor . . .

serves a number of functions from organizer to cheerleader to imparter of information" (Pallof &

Pratt, 2007, p. 53). Highly effective teachers see teaching as fostering learning, which helps

them design better experiences for their students (Bain, 2004).

Online and hybrid professors need to be up front with their students by providing information early on about course requirements. Assignments and grading criteria need clarity in design, and instructors should offer timely feedback to increase student satisfaction with online courses (Roach & Lemasters, 2006). Providing clear, well-designed assignments, creating a forum for faculty-student interaction, offering prompt feedback, and communicating high expectations are important good practices in hybrid and online courses (Babb et al., 2010). The instructor should respond quickly to participants, be involved in the exchange of information in the course environment (Pallof & Pratt, 2007), and offer feedback on progress instead of simply assigning a grade (Smith & Winking-Diaz, 2004). The student should know what to expect and when to expect it from the beginning of the semester to clear confusion and reduce anxiety (Babb et al., 2010). "If they [teachers] use verbal reinforcement and positive feedback—in other words, encouragement or praise—they can stimulate interest, or at least keep it from evaporating" (Bain, 2004, p. 33).

Some instructors feel that the only requirement in teaching online is to design and upload the course, assuming the course will take care of itself and thrive and learning will happen. In order for true learning to happen, however, the community needs to be nurtured and supported (Rovai, 2002). It is up to the instructor to create an effective learning experience by posting goals, objectives, and expected outcomes as well as requirements for participation, thoughts, discussion questions, and assignments. The instructor must have active involvement in the learning environment and facilitate the learning process (Pallof & Pratt, 2007). "Teaching is engaging students, engineering an environment in which they learn" (Bain, 2004, p. 49).

Prior research reported that student-instructor interaction was an important aspect of student success and satisfaction in online and hybrid courses. Students benefit from personalized

contact from and access to their professor (Roberson & Klotz, 2002); lack of interaction is a major area of concern in online classes (Roach & Lemasters, 2006; Roberson & Klotz, 2002) and a deal breaker for many students (Garza Mitchell, 2009). Students desire feedback from the instructor. In Roach and Lemaster's 2006 study the students noted overall satisfaction with online courses except for the response time from the professor. Students want formal and informal conversations with their instructors and opportunities to meet with the instructors outside of class (Howard, 2009). This is less likely to happen in online classes than in the traditional classroom, but instructors should be available to students in a variety of ways to ensure they receive desired feedback. On the other hand, it may take time for students to learn to interact in an online environment (Roach & Lemasters, 2006).

In Herbert's 2006 study on student satisfaction faculty responsiveness ranked as the most important variable. "All the best teachers talked to their students, and the quality of those talks made a significant difference in the success of the teaching" (Bain, 2004, p. 117). While Bain's writing involved professors who taught in person, this applies online as well. Studies indicate that interactions between students and instructors enhance the distance learning process and enable better performance on tests, increase student motivation, improve attitudes towards coursework, and increase retention rates (Elluminate, 2009). For students to be successful in online courses there must be increased communication between the student and the instructor. Interactions between the teacher and the learner support the student's online experience (Lehman & Conceição, 2010), especially in the beginning of the semester (Roach & Lemasters, 2006), and constructive feedback helps the student progress throughout the course (Roach & Lemasters, 2006; Roberson & Klotz, 2002). Students expect more feedback, more resources, and increased attention in online courses (Shelton & Saltsman, 2004). They appreciate instructor availability

and need confirmation that they are on the right track (MacDonald & Thompson, 2005; Roach & Lemasters, 2006; Roberson & Klotz, 2002; Stodel et al. 2006). Students must feel connected to the course and the instructor (Herbert, 2006; Howard, 2009). Effective professors encourage cooperation and collaboration (Bain, 2004).

Lehman and Conceição (2010) called this connection creating a sense of presence and they stressed the importance of developing this sense of presence in online classes. Quality instructors display openness with their students and share their own journey and life including their ambitions triumphs, frustrations, and failures. This encourages students to be similarly reflective and candid (Bain, 2004). Online instructors must stay active in online classes and communicate with the group on a regular basis. He or she needs to be aware of group developments and act decisively and quickly when needed (Pallof & Pratt, 2007).

Highly effective teachers "tend to treat students with what can only be described as simple decency" (Bain, 2004, p. 18). Students need respect from their instructors. Students feel isolated when they do not have a connection to the instructor in the class, and this causes many students to be dissatisfied with the online experience. A sense of presence means that the professor should be with the students as they learn, should place the learners at the center of the course, and be sure the students know the instructor is accessible. While this does not evolve naturally, the instructor can build presence into the course (Howard 2009; Lehman & Conceição, 2010). To be a truly effective online instructor the teacher needs to show strong trust in students in both online or in person classes. They want students to learn and they believe the students want to learn and can do so (Bain, 2004).

One of the greatest concerns in online education is instructor accountability. Some instructors do not monitor the online course once uploaded. They do not monitor student

progress or give feedback to let the students know how they are progressing (Pallof & Pratt, 2007). Pallof and Pratt found that online instructors needed to check the course site at least once a day, sometimes more, in order to respond quickly, offer advice or suggestions, or simply to make their presence known. This helped develop the instructor's sense of presence and showed instructor investment in the course.

Some students expressed dissatisfaction with the amount of feedback on assignments submitted online (Burnett et al., 2007). They may have confusion about the quality of their work if they have trouble contacting their teachers about their assignments (Muirhead, 2000). Students in Bambara et al.'s 2009 study stated their instructors were more like a Web administrator or a grader than a person helping them learn. In many cases the only feedback the students received was a grade. Students need high levels of interaction with their instructor (Burnett et al., 2007), and appropriate feedback is necessary for a student to benefit from a course (Chickering & Gamson, 1987; Muirhead, 2000). Feedback and other communication should be empathetic and compassionate but also provide advice and support, focus on clear objectives, and encourage completion of tasks (Funk, 2005). Individualized and personalized communication lets the students know the professor speaks directly to them and has interest in their experiences in the classroom (Cavanaugh, 2005). The role of the instructor has changed from being the source of authority in the traditional classroom to being a support system in the online environment (Lehman & Conceição, 2010). This paradigm shift presents new challenges for faculty members and the university (Christopher et al., 2004; Kelly, n.d.a). However, when students interact with their instructors about the course, they work to develop a better understanding of their experiences through learning in a social context (Berge, 1996).

The best teachers make students feel good about themselves as persons and as students (Bain, 2004). Instructors teaching online often realize they need additional time to deliver the courses—up to two or three times as much as needed to deliver a face-to-face course, especially when a first time online instructor teaches a newly developed course (Pallof & Pratt, 2007). The extra time needed to teach online classes makes it more difficult for the professor to connect with students and show them how to be successful in online programs. Faculty members need to interact with students and encourage them to interact with each other, which is vital to the learning process (Bain, 2004)

One of the concerns regarding online and hybrid courses is professor feedback, or lack thereof (Kelly, n.d.a). Communication between the student and the professor is a powerful predictor of student satisfaction (Babb et al., 2010), and it is up to the instructor to help students feel more confident and secure in the online experience (Kelly, n.d.a). When the professor provides clear expectations at the beginning of the course, it can reduce student anxiety (Hess et al., n.d). "Professor communications should be timely, effective, and express high expectations of student performance" (Babb et al., 2010, p. 744). Some students are afraid they are not doing things correctly or missing items and may feel that they have no one to ask (Stodel et al., 2006). If they are unaware of the expectations of the course, they are more likely to experience confusion and frustration that may lead to a stressful environment for all involved (Hess et al., n.d.). Providing a structure online for the students to ask for clarification from and interact with each other and the professor regarding the requirements of the course, especially in the initial *learning how to learn in an online class* time, can alleviate or at least reduce stress. According to Roach and Lemasters (2006), "Initially, the online learner may need more direct instructor attention than the on-ground learner" (p. 330); thus, the instructor should be available by phone

or even set up weekly synchronous chat sessions and invite students to participate as needed. However, they must also set firm boundaries to allow for personal time as well as assisting learners in developing time management skills (Pallof & Pratt, 2007).

"Timely, authentic feedback is a powerful tool for both assessment and personal growth" (Koole et al., 2010, p. 61). Feedback is critical to student success (Herbert, 2006; Lehman & Conceição, 2010). E-mail is a more personal connection with the instructor than the Internet delivery system of most online courses and can create a bond with the students (Roberson & Klotz, 2002).

Lack of instructor-student communication can result in a negative learning environment and hinder the learning process (Shelton & Saltsman, 2004). According to Burnett et al. (2007) the more interaction with the faculty member, the more likely students will express satisfaction with the course. "Student satisfaction is tightly coupled with perception of the instructor's engagement in course interactions" (Burnett et al., 2007, p. 32). Student-faculty interaction is the most important factor in student motivation and involvement. When students know that a faculty member is there and concerned about them, they are more likely to be motivated (Chickering & Gamson, 1987). Students who lack a feeling of connectivity to faculty members have a greater chance of not completing the course (Herbert, 2006). "When learners are actively involved in dynamic conversations with the instructor through e-mail and web-based videoconferencing, their interactions become lively and provide a sense of being together in the same room" (Lehman & Conceição, 2010, p. 32). Part of the role of the instructor is to provide a forum for introductions and facilitating interactions among participants along with the academic aspect of online learning (Cobb, 2009).

Professors should actively support, encourage, and follow up with their learners. Supporting learners can be time intensive for professors, especially in the beginning of the semester, but it can assure students successfully complete the course (Cavanaugh, 2005; Howard, 2009; Muirhead, 2000; Tyler-Smith, 2006). Because this can be difficult in online courses where the students and professor may never meet, the instructor must take the responsibility for creating an online environment that allows greater interaction and greater overall satisfaction with the course experience (Pallof & Pratt, 2007).

In Garza Mitchell's 2000 study on faculty in online classes limitations on enrollment was 23 students in all online courses, faculty and students had to participate in their online courses at least five times per week, and full-time faculty members had office hours on campus even if their entire course load was online. Mandates such as these help to improve student-instructor communication and increase the level of feedback in online courses, which, in turn, should increase student satisfaction. In Kingma and Keefe's 2006 study the university mandated teacher training and one-on-one instruction with instructional designers for the professors. Schools should ensure that the online class size remains small enough for the instructor to communicate effectively with the students in the course and to assure student satisfaction. This is especially the case early in the semester when the students acclimate to the online environment (Roach & Lemasters, 2006).

The number of students involved in the class can greatly influence how much interaction students have with their professor, and limitations on class size can create a better overall experience in the online classroom for both the professor and the student (Cavanaugh, 2005; Roach & Lemasters, 2006). Students require more forms of communication. They tend to favor social media sites such as Facebook and Twitter as well as programs like Skype as ways to

communicate with faculty members as well as other students and would like to see these integrated into online courses (Jafari et al., 2006). Each learner comes to the online class with different experiences and expectations. The instructor needs to accommodate learners with a variety of needs, provide them with services to meet those needs (Lehman & Conceição, 2010), and develop effective online educational experiences (Christopher et al., 2004). Bringing interactive experiences into the online learning classroom can increase the level of satisfaction. The instructor's role in an online class is to create a sense of online community and collaboration among students (Cobb, 2009).

Many colleges require instructors to complete a college-run training course before they begin teaching online (Garza Mitchell, 2009). This gives instructors the experience of learning about the online environment before delving into teaching a class. It can give insights into the development and maintenance of online courses as well as the levels of interaction required by the school. Being *there* for online students requires different approaches and ideas than being *there* for a traditional classroom experience (Lehman & Conceição, 2010). The instructor must be clear about the amount of time involved for class participation, show they participate as much as the students, preferably more, and strive to create a community for the online course to be successful (Pallof & Pratt, 2007).

Hybrid Format

The community college selected for this study employs a hybrid approach for its online classes with the majority of classes meeting in person about four times per semester. "Hybrid courses are courses in which a significant portion of the learning activities have been moved online, and time traditionally spent in the classroom is reduced but not eliminated" (Garnham &

Kaleta, 2002, n.p.). Researchers found that a hybrid or blended approach affords the benefits of both face-to-face instruction and online instruction (Babb et al., 2010; Garnham & Kaleta, 2002; Ioannou & Hannafin, 2008). A majority of students in hybrid classes reported the format was worthwhile and they would recommend a hybrid course to other students (Aycock et al., 2002; Garnham & Kaleta, 2002).

The hybrid format is a trend at many colleges (Elluminate, 2009), and some researchers find that the face-to-face interactions offered via hybrids can be critical to student learning (Howard, 2009). Even with the success stories of online education from both instructors and students, learners report that they miss the face-to-face contact when completely learning online (Stodel et al., 2006). The hybrid format is a bridge connecting the benefits of learning online to learning in a face-to-face environment. Hybrid courses increase student engagement and interactivity while still providing the flexibility desired by today's students (Aycock et al., 2002; Garnham & Kaleta, 2002). Consequently, some schools require face-to-face classes, while others have them as optional (MacDonald & Thompson, 2005).

"Hybrid courses show enormous variety in how the face-to-face ratio to online time is distributed" (Aycock et al., 2002, p. 2). In Garnham and Kaleta's (2002) study, the faculty perceived that their students learned more in hybrid courses than they did in traditional classroom sections and that students wrote better papers and projects, produced higher quality projects, and had more meaningful discussions on course material. The variety in hybrid courses is beneficial because the college and instructor can schedule courses in a many ways such as replacing one class per week with online instruction, meeting in class for several weeks, or allowing students to work online for a few weeks to complete projects either alone or in teams. This flexibility enables the faculty to design their courses to accommodate their own teaching

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styles to course content (Aycock et al., 2002; Garnham & Kaleta, 2002). As a supplement many develop modules to familiarize students with course content prior to in class discussions (Garnham & Kaleta, 2002).

Students in a hybrid approach have better grades and higher completion rates (Babb et al., 2010; Elluminate, 2009). Students in hybrid instruction tend to receive higher exam scores, enjoy their classes more, and have more positive attitudes towards the subject matter than those in entirely online courses (Tapscott, 2009). Howard (2009) said that incorporating face-to-face elements helps meet the social needs of students in online classes. The disconnect of not having face-to face elements in the online education experience can make online learning more difficult for some students (Stodel et al., 2006).

Students in online classes can feel disoriented without the initial face-to-face introduction, explaining how the class works and providing instructions for assignments (MacDonald & Thompson, 2005; Stodel et al., 2006). Hybrid classes can reduce this concern by having the instructor meet the students face-to-face to provide instructions and answer any questions the students might have. Students in hybrid courses feel more connected with their classmates (Aycock et al., 2002; Babb et al., 2010). Often a face-to-face workshop at the beginning of the semester can significantly improve the learner's perception and experience of online education (MacDonald &Thompson, 2005; Tyler-Smith, 2006). Having an introduction to the course in person can alleviate some of the fears of the online learning experience, create a bonding experience to help reduce isolation, and instill a sense of community. Personalized contact, preferably before the semester starts, can be the most critical support system for new online students. It establishes a lifeline to the instructor and lets the students know that there is someone who can help them (Ammendolia, n.d.).

Instructors have reported that the hybrid format allows students to accomplish learning objectives more successfully than traditional courses and increases interaction and contact between students and faculty and between student and student (Garnham & Kaleta, 2002). However, other research revealed that students quickly forgot having face-to-face meetings early in the semester unless the initial meeting extended over a period of days and included community building activities (Pallof & Pratt, 2007). Pallof and Pratt also found that periodic face-to-face meetings throughout the semester could detract from online work and reduce participation in the online forums.

Technological Experience

"The best designed course possible will be to no avail if students do not have the skills to manipulate the hardware and software programs and electronic libraries" (Roach & Lemasters, 2006, p. 330). Educators tend to believe that anyone taking an online course is tech savvy and comfortable learning outside the traditional classroom (Sull, n.d). However, one cannot assume that learners know how to be online learners (Conrad & Donaldson, 2011). Some students have a great deal of technological experience, while others know little or nothing about using a computer. Consequently, many online students must not only learn the material in the course but also learn the technology used in the course (Tyler-Smith, 2006). Those with little experience with computers often admit to high stress levels produced by online education (Sull, n.d.).

However, technology is not a barrier for most instructors or students if they can make it through the first few weeks (Aycock et al., 2002). The first weeks are critical for success. The instructor should select technology used in the online classes with awareness of the student's preference for working from home (Aycock et al., 2002), and understand that technical problems

may be a factor that influences a student to leave the course (Willging & Johnson, 2009). The instructor needs to be at least somewhat knowledgeable to help with basic technology problems (Pallof & Pratt, 2007).

Some schools, such as the school studied by Roach and Lemasters (2006), have outsourced technical support. In this case management by a third-party provider resulted in higher satisfaction levels with the online learning environment with one student commenting, "Technical support was available whenever I needed it" (p. 329). Success in an online class is highly dependent on the level of institutional support and training for both students and teachers (Charlier, 2011). Technological comfort also contributes to the successful completion of the online course and comfort with the technology increases participation in the online courses (Pallof & Pratt, 2007).

The sense of confidence students have along with their perceived level of competence in the technological aspects of online learning can greatly influence the student's initial experience with online education (MacDonald & Thompson, 2005; Tyler-Smith, 2006). Students must become acquainted with the technology used in an online class before starting the course (Burnett et al., 2007). They need time to develop the necessary computer skills to be successful (Christopher et al., 2004) because technological problems can stretch both the instructor and the student to a breaking point (Kelly, n.d.a). According to Pallof and Pratt (2007), some students who had difficulties with the software or hardware actually learned more about the way in which technology affects learning than they did about the material in the course. "We have known class participants who, because of the hardware or software being used, felt frustrated and unhappy with the entire online experience" (Pallof & Pratt, 2007, p. 55). Instead of being upset or frustrated by the students' lack of technical knowledge, faculty must remain helpful and

flexible in order to keep the student learning. Institutions may need to offer basic courses in computer skills or require some form of technological experience, test, or class before students enroll in an online class.

The technology of the online world is now everywhere and completely ingrained in our lives (Lehman & Conceição, 2010). Yet, all learners do not come into the classroom experience prepared for online learning. According to Kelly (2009), at least "96% of first-time online learners felt that they were technologically ready for the online classroom" (p. 1), but although they understand technology and use social networking, chats, and messaging, not all are ready for an online classroom (Williams & Chinn, 2009). Learning to be an online learner should be an important part of online courses (Stodel et al., 2006), and the unfamiliarity of the format can cause frustration and fear in some students. Many first-time online students lack confidence in their abilities in the online environment and have concerns about missing assignments, rather than doing the assignments correctly (Stodel et al., 2006). When glitches occur during the course, it is essential that the instructor respond quickly to avoid participation problems (Pallof & Pratt, 2007). If students experience problems they cannot resolve quickly, they are more likely to withdraw from the course.

Websites and discussion boards should have clear designs and be user-friendly. They should provide places for communication with other students and places for communication with faculty (Babb et al., 2010). Logins, passwords, and multiple websites, etc. required for the online courses (Jafari et al., 2006) plus software and hardware concerns (Bambara et al., 2009) can engender frustration. Everything should be as simple as possible and students should not spend time learning how to submit assignments or complete course requirements when they should be spending time on the assignments instead (Pallof & Pratt, 2007).

Initial reactions to the online interface can include confusion and annoyance for many

learners. The most difficult and disorienting challenge can involve understanding how the

system works and where to get the information needed (Bambara et al., 2009; Siemens, 2004).

Having continually to log in and change passwords or traverse to certain pages can be frustrating

when students use websites, such as Amazon.com, that remember who they are, what they like,

and where they left off (Jafari et al., 2006). If students experience technological problems and is

unable to log in for a few days, they may fall behind, be overwhelmed or frustrated, or think

online learning is just too difficult, which may make them drop out (Conrad & Donaldson, 2011;

Tyler-Smith, 2006). However, when learners know they have technological assistance and

support available, it can increase their satisfaction with online courses (Lehman & Conceição,

2010) but if faced with technical support that is not immediately available or easily accessed,

they often have feelings of helplessness (Tyler-Smith, 2006). One tool to help students realize

their preparedness for taking an online course is to offer a self-assessment tool (Hess et al., n.d.).

This can be beneficial but should be used carefully so as not to make them feel even more

unprepared.

Many students think they are prepared for online learning and underestimate the skill

level needed for an online class (Tyler-Smith, 2006). "Because the software for online classes is

new to many users and is constantly changing, the possibility of encountering technical

difficulties is very real" (Pallof & Pratt, 2007, p. 101), and many instructors complain about

students not participating only to discover that the student could not log on to the system or

participate due to technical difficulties (Pallof & Pratt, 2007). Sometimes things happen beyond

faculty control, such as servers going down or Internet service providers failing. These are

frustrating to faculty and students and merit consideration when looking at participation (Pallof & Pratt, 2007).

Lack of experience with technology and concerns about technology can leave the students feeling anxious and frustrated and threaten their ability to keep pace with the course (Bambara et al., 2009; MacDonald & Thompson, 2005). Concerns about online courses can include fear of unfamiliar technology and fear of breakdowns (Funk, 2005). What happens if my computer crashes? Or my Internet goes down? Another concern is that of communication over the Internet (Funk, 2005). What if my email doesn't go through? What if I can't contact the person I need? These concerns can result in some students giving up due to frustration (Tyler-Smith, 2006). Their perceptions of their own competence and their attitudes towards the experience of online education can influence their confidence in the course (MacDonald & Thompson, 2005). Technical support may include help with logging on, using software, uploading, and downloading files.

With online classes there is generally little opportunity to place cohort students with similar characteristics such as technological experience, age, and prior online experience. This can result in a course with some technologically advanced students and some with little technological experience (Berge, 1996). This can lead to more confusion or frustration as other students understand more quickly than those with less experience and can also lead to the students with more technological experience being bored with the class waiting for others to learn how to learn online. In addition, some students may have more experience with certain technology and less with others, creating an imbalance in the class. The introduction of new technology requires time to adjust (Christopher et al., 2004), and some students are not able to jump in and understand. The level of the satisfaction with online courses and online programs

does improve over time; if students can get past the first few barriers, their satisfaction with the online experience will generally improve (Roach & Lemasters, 2006).

One major area of concern has to do with accessibility. Some online learners are at a greater disadvantage because they do not have a computer or Internet access at home and must go to a library or other place to access the online class. Many in rural areas do not have access to high speed connections that are required for some online courses (Funk, 2005), which can cause frustration and dissatisfaction with the online learning experience (Ioannou & Hannafin, 2008). The further students are from campus, the more likely they are to choose distance education, but that also limits their access to campus resources. Regardless, distance education students are likely to choose this format for convenience, lower travel costs and easier time management (Charlier, 2011).

A positive side effect of completing online courses is often a greater level of technological skills and more comfort with technology overall (Aycock et al., 2002; Pallof & Pratt, 2007; Skylar, 2009) and that may become a desired outcome of any online class (Pallof & Pratt, 2007). This will most likely help the students throughout their life and work experiences due to the increasing technology in the world. Students liked using technology because they saw the usefulness of acquiring a new skill (Aycock et al., 2002). Students who type slower may feel that their contributions are less valuable. "The fastest typist tends to be the loudest voice" (Conrad & Donaldson, 2011, p. 25). Students may feel overwhelmed and have difficulty keeping up with real-time conversations due to their own slow typing speed.

Student Age

"We are discovering that many of our online learners are what we once called nontraditional students" (Conrad & Donaldson, 2011, p. 92). Age can influence student satisfaction in online courses because of the variety of experiences of each generation. In Dutton and Dutton's 2005 study online students were significantly older than students in traditional courses. They often chose this medium because of the need for greater flexibility due to other responsibilities.

"Generational differences can have a significant impact on how learners interact" (Conrad & Donaldson, 2011, p. 21). Younger students have grown up in an interactive digital world and often have trouble learning in the traditional classroom with a professor lecturing to the class (Tapscott, 2009). These students have grown up in a digital world and expect to use the digital tools to their advantage in the classroom whether traditional, online, or hybrid (Williams & Chinn, 2009). Students want an animated conversation rather than a lecture; they need interaction (Tapscott, 2009). They tend to go online to Google or Wikipedia to find answers to their questions, thus they are comfortable the idea of online learning (Tapscott, 2009; Williams & Chinn, 2009).

> Younger students are bringing their casual use of technology into the online
> classroom, creating a challenge to the academic setting and a need for institutions
> and instructors to provide instruction and orientation about what it means to use
> these technologies for academic means and for forming a learning community.
> (Pallof & Pratt, 2007, p. 35)

Younger students learn differently, usually through interactive, asynchronous, collaborative environments (Tapscott, 2009), thus taking an online class is nothing new for many younger

students (Kelly, n.d.b). Growing up digitally has changed how young people's minds work. They have learned multitasking and handling information overload and they expect a two-way, interactive conversation (Pallof & Pratt, 2007; Tapscott, 2009). These students have grown up collaborating, sharing, and creating together online so online classes are in their comfort zone (Kelly, n.d.b; Pallof & Pratt, 2007; Tapscott, 2009). They see their futures built entirely around technology (Chronicle Research Services, 2009) and use active ways of seeking knowledge and entertainment. Some studies note that approximately 87% of teens (12-17) use multiple forms of technology. However, adults may be newcomers in this arena, resulting in a technological generation gap (Pallof & Pratt, 2007).

Older students make up an increasing percentage of higher education students. According to Chronicle Research Services (2009), "The adult student market will be the fastest growing one in higher education for the foreseeable future" (p. 48). Many online learners are now what were once called nontraditional students or adult students (Conrad & Donaldson, 2011), and require the more flexible scheduling allowed by online courses (Dutton & Dutton, 2005). These students may be going to college to advance their careers or change to new ones (Chronicle Research Services, 2009; Howard, 2009; Tyler-Smith, 2006), and many choose to attend college because of the flexibility available with online programs (Howard, 2009). While the online format meets the needs of the adult student, it can leave them lacking the benefits of being on a traditional campus (Dutton & Dutton, 2005; Roberson & Klotz, 2002).

Adults approach the online environment differently than younger students. They did not grow up with all of the technology available and are more selective about their online experiences. Younger students tend to use all forms of technology equally because a variety of technological experiences and online environments have bombarded most of their lives. Adults

show more concern about their online experiences and worry about making their lives part of the online environment (Pallof & Pratt, 2007).

Generally older students are not as familiar with technology and may not have the experience necessary for successfully completing online courses (Kelly, n.d.b; Tyler-Smith, 2006). Older students are more likely to resist the technology necessary for online learning than younger students are (Kelly, n.d.b.). Nontraditional students may not understand the required interaction and collaboration in online courses due to their previous educational experiences of competition and trying to outshine other students (Conrad & Donaldson, 2011). Older students may need guidance in assuming a more passive role needed in the online course (Conrad & Donaldson, 2011). They may also wonder whether they are capable of learning if there has been a long period between their previous educational experiences and their current one, and whether they are *up to par*, clever enough, or disciplined enough. Older students may be afraid of saying something embarrassing and fearful of making online posts. All of these reservations can contribute to learner anxiety (Tyler-Smith, 2006).

Convenience and support are critical for the success of older students. They choose online programs for convenience and flexibility, but older students must have a support system to ensure they are successful in online learning. They are often away from campus and cannot easily access the support systems, such as tutoring and libraries, available to younger students (Tyler-Smith, 2006). Because of their distance from the campus, they are more likely to ask the instructor technical questions instead of asking the helpdesk (Kelly, n.d.b). In addition, many adult students do not realize the amount of time it takes to complete an online course (Chronicle Research Services, 2009; Howard, 2009). They need a support system in place to be successful in online courses (Muirhead, 2000; Tyler-Smith, 2006). Teaching online requires an accurate

profile of adult learning needs, and the instructor must have the ability to help these students reach their educational goals through a variety of means (Muirhead, 2000).

Adult learners can be a great influence in online courses because they bring a variety of real world perspectives that can be beneficial to the other students in the classes, offering insight that younger students may lack. They want to know why the subject matter is important, to be responsible for their own decisions, and to bring valuable information to the course content. They are ready to learn and often have more internal motivation for learning, such as career advancement or personal development (Akin & Neal, 2007; Tyler-Smith, 2006).

"Younger students may adapt more easily than older students to meeting others online but both groups may initially have difficulty shaking off the passivity of the lecture-based paradigm and turning to one another as sources of knowledge" (Conrad & Donaldson, 2011, p. 10). When teaching students from different generations, instructors need to take steps to make online classrooms comfortable and supportive for students of all ages. Faculty members must be aware of these issues and be able to adapt their online courses to engage a variety of students of different ages (Kelly, n.d.b). Even though differences between older and younger students are numerous, Dutton and Dutton (2005) found no significant difference in the final grades of adult students versus traditional students in online courses.

Prior Experience in Online and Hybrid Education

"First-time online learners are likely to feel insecure both technologically and academically due to course design and delivery methods that involve autonomy and self-directedness" (Lehman & Conceição, 2010, p. 70). The experience of their first online class will likely affect whether or not students choose to register for another online class in the future

(Kelly, 2009). The students' anxiety level is usually high when taking their first online course (Kelly, n.d.a), and the experiences can be overwhelming (Tyler-Smith, 2006). The experience is often disorienting for the first time student because the online medium requires different types of participation and interaction (Pallof & Pratt, 2007) and many students are unprepared for these differences. The best teachers have strong faith in the ability of students to learn and in challenging students, but they also understand that excessive anxiety and tension can cause difficulties with learning and the thought process. They find ways to help students relax and believe in themselves (Bain, 2004).

According to Roach and Lemasters (2006), student satisfaction in online courses increases with each class the student successfully completes after the third course. Kelly (2009) found that students who had taken at least one online class prior to the semester under study were more satisfied with their online learning experiences. One respondent, who was chair of computer technology and business at the college in Kelly's study, said that if students had a satisfactory experience during their first online course experience, they would continue to take online classes and remain satisfied. He saw it as a "weeding-out process for those students who think they are capable of learning online and then find out they aren't" (Kelly, 2009, p. 1). Other professors in Kelly's study expressed the same opinion—the first online class was the key to student satisfaction. Previous online learning experiences can build both confidence and trust in the online experience and create a feeling of safety and power within the online community (Gulati, 2004).

Funk (2005) noted that the "literature suggests that all first-year students in an online university are at-risk until they gain the support (financially and emotionally), the skills necessary to succeed, and begin to believe in themselves" (p. 4). Any students in an online

course for the first time will face many challenges that may impact their confidence and ability to be successful as an online learner (Tyler-Smith, 2006).

Students who enroll in online classes may be unaware of the requirements or their own abilities to complete an online course. They may not know whether they can succeed in the online environment. A common misconception about online courses is that they require little work or even function as an independent study instead of a structured course (Garza Mitchell, 2009). Students who have successfully completed an online course may be better prepared to handle another online course because of their prior experience.

Employment Status

Online courses are attractive to many students because work obligations limit their ability to attend traditional classes (Bambara et al., 2009; Howard, 2009). Students working in healthcare, police officers, military, or firefighters find online learning much more compatible with their shift schedules and without online or hybrid learning, they would be unable to attend college at all (Bambara et al., 2009; Garza Mitchell, 2009). Online students often have jobs that require more hours of work than traditional students do (Dutton & Dutton, 2005). Students can have difficulties arranging a flexible work schedule that will allow them to support themselves financially as well as having time to study and attend classes (Funk, 2005). Conflicts between class and work are an important reason for students to choose online classes (Dutton & Dutton, 2005). However, Dutton and Dutton (2005) found that even with the difficulties associated with working and being an online student work status had no significant effect on student performance and final course grade.

Online and hybrid classes helped relieve some strain on working students. Many working students take classes directly applied to their workplace, which makes the courses more relevant to their lives (Tyler-Smith, 2006). If they are currently working towards a promotion or other workplace benefits, they have a greater stake in the course than someone who may not be sure of future career goals (Tyler-Smith, 2006).

Taking all of this into account, students who work fulltime may be more likely to take online classes and may be more satisfied with their experiences than those who choose to take online courses for other reasons. However, having a job can also have a negative effect on a student's online learning due to work requirements such as overtime or other time constraints. Employed learners may also have issues related to being away from the campus and the learning sources available to traditional students (Tyler-Smith, 2006).

Massive Open Online Courses (MOOCs)

Another topic of interest within online education is that of Massive Open Online Courses (MOOCs). MOOCS are a growing part of online education in America and some people see them as a way to revolutionize the education system (Bali, 2014). MOOCs are online courses open to the public. Most include *canned* lectures, automatically graded quizzes and testing, and voluntary student participation (EDUCAUSE, 2012; Glance et al. 2013). However, MOOCs are usually similarly structured to traditional online learning courses (EDUCAUSE, 2013). The majority of students who enroll in MOOCs are international students or professionals, not currently enrolled college students (EDUCAUSE, 2012; Pirani, 2013), with whom the instructor has little interaction (EDUCAUSE, 2011). Many college students are completely unaware that

MOOCs even exist and the majority of enrollees are professionals who already have at least one degree (Pirani, 2013).

Students who need or expect high levels of interaction with professors can experience problems with MOOCs due to the lower levels of interaction (EDUCAUSE, 2011). Instructors expressed concerns about MOOCs stating, among other things, that massive open online courses devalue faculty-student interaction. Issues with retention and completion rates as well as the reliance on peer review and feedback have made MOOCs difficult for many students (EDUCAUSE, 2013). Also the large amount of information posted from the hundreds or, in some cases, thousands, of students enrolled can be overwhelming (EDUCAUSE, 2011).

Because the courses are usually free, the college and the company hosting the course platform bear their own costs and only have revenue if they sell student information, have advertising or sponsors, or sell the course to other institutions (EDUCAUSE, 2012). In some cases, the class is available simultaneously to paying students of the college and free to the public. In these instances, the paying students have more interaction with the professors and more assignments not available to the nonpaying students (EDUCAUSE, 2011). Currently only about 5% of nonpaying participants in MOOCs successfully complete the course (EDUCAUSE, 2012, Pirani, 2013).

Conclusion

A review of the literature has shown that each area covered by a research question in the present study has an impact on student satisfaction in online and hybrid courses. Student-instructor interaction, student-student interaction, and hybrid learning formats can impact student

satisfaction as well as the student characteristics of technological experience, age, prior

experience in online or hybrid courses, and employment status.

CHAPTER 3

RESEARCH METHODOLOGY

This study involved quantitative research to analyze questionnaires completed by students at a community college in Appalachia. The design of this study is nonexperimental. This chapter includes the research questions and null hypotheses, and information on instrumentation, population, data collection, and data analysis.

Research Questions and Null Hypotheses

This study analyzed data from students enrolled in hybrid courses at a community college in Appalachia. The following questions and hypotheses controlled the direction of this study.

1. Is there a significant correlation between the degree to which students feel connected to their instructor and their satisfaction with hybrid courses?

   H_0:1 There is no significant correlation between the degree to which students feel connected to their instructor and their satisfaction with hybrid courses.

2. Is there a significant correlation between the degree to which students feel connected to other students and their satisfaction with hybrid courses?

   H_0:2 There is no significant correlation between the degree to which students feel connected to other students and their satisfaction with hybrid courses.

3. Do students find that an in-person component of a hybrid class is important to their success in online courses to a significant extent?

   H_0:3 Students do not find that an in-person component of a hybrid class is important to their success in their online courses to a significant extent.

4. Is there a significant correlation between students' technological expertise and satisfaction with online courses?

H_0:4 There is no significant correlation between students' technological expertise and satisfaction with online courses.

5. Are students satisfied with their online and hybrid courses to a significant extent?

H_0:5 Students are not significantly satisfied with the online and hybrid format.

6. Do students feel connected with their instructor to a significant extent?

H_0:6 Students do not significantly feel connected to their instructor.

7. Do students feel connected with their classmates to a significant extent?

H_0:7 Students do not significantly feel connected to their classmates

8. Are students comfortable with the technology used in online classes to a significant extent?

H_0:8 Students are not significantly comfortable with the technology used in the online classes.

9. Do students feel that the design of the course helped them learn to a significant extent?

H_0:9 Students do not feel significantly that the course design helped them learn.

Sample

During the period under study, there were 1,061 students enrolled in online or hybrid classes at the chosen college. Every student enrolled in online or hybrid classes had the opportunity to participate in the study. The students who responded represented a variety of classes including Accounting, Art History, Astronomy, Biology, Criminal Justice, Economics, English, Geography, Human Resources, Math, Office Management, Political Science,

Psychology, and Speech with most students taking multiple hybrid courses during this semester. The majority of students are traditional aged, female, and Caucasian. Most are full-time students who work either full-time or part-time while attending school.

Instrumentation

The survey instrument was a modification of the survey of Strachota (2003) used in her dissertation. Strachota offered permission to modify the survey for use as long as appropriate credit was given. The survey instrument contains 11 demographic questions, 13 questions regarding the online course, 23 questions regarding satisfaction in the course, 18 questions on computer usage, and 2 open-ended questions regarding the advantages and disadvantages of online learning. The survey had a total of 67 questions. A Likert scale measured student satisfaction in the courses and their computer experience. A copy of the survey instrument is available in Appendix A.

Modifications to the Strachota (2003) questionnaire eliminated survey questions not relevant to the current topic of study. Two expert online faculty members, four graduate students, and a professor in a graduate level Instrument Development Research course reviewed the original instrument. This group approval increased the content validity of the survey instrument, and a pilot study tested for construct validity. A Cronbach Co-efficient alpha established reliability for the items included in this study; the Cronbach Co-efficient alphas were learner-instructor interaction = .89 and learner-learner interaction = .89.

Data Collection

Data for this study were collected during the fall 2014 semester at the chosen community college. An email was sent to all students enrolled in online courses, describing the study and including instructions for survey access through SurveyMonkey®. To protect the anonymity of participants, access to all survey responses were available only to the researcher. There was no personal contact between the study participants and the researcher and participation was be voluntary. Only aggregate data were collected.

Data Analysis

The Statistical Package for Social Sciences (SPSS) was utilized to analyze each research question. Research questions 1, 2, and 4 were analyzed using a series of correlations. Research questions 3, 5, 6, 7, 8 and 9 were analyzed using a series of independent sample t-tests

Research question 1 compares the students' overall level of connectivity with the instructor and their satisfaction with the course. Research question 2 compares the students' connectivity with other students and their overall satisfaction with the course. Research question 3 explores their perceptions regarding the in-person requirements of online courses. Research question 4 analyzes the students' course satisfaction based on their personal technological experience. Research question 5 explores the overall satisfaction of the student in the online course. Research question 6 explores the students' connection to their instructor. Research question 7 explores the students' connection to their classmates. Research question 8 explores the student's experiences with the technology used in online classes. Research question 9 explores the student's perceptions of how the course was designed. All data analysis was conducted at the .05 level of significance.

Chapter Summary

Each student surveyed had the opportunity to express his or her perception regarding online education and how it works or does not work. Students responded to a variety of questions to measure their satisfaction in online courses based on the study's research questions. Data were analyzed in accordance with each research question.

CHAPTER 4

FINDINGS

The purpose of this study was to explore student perceptions and experiences in online and hybrid courses at a community college in Appalachia. During the fall 2014 semester, the community college enrollment in one or more hybrid courses included 1,061 students. It should be noted that all online courses at this community college were actually hybrid, requiring several face-to-face sessions for each class. During data collection identified students received invitations to participate in the survey through their campus email accounts. However, only 36% of those emails were deliverable with the others returned due to mailboxes being full. This immediately caused concern; therefore the researcher contacted the person in charge of the course management system used by the selected college and reissued the email notifications directly through that system. Even with this, only 44 of the 1,061 of possible research subjects responded, leading to a 4.15% response rate.

Research Question 1

1. Is there a significant correlation between the degree to which students feel connected to their instructor and their satisfaction with hybrid courses?

H_0:1 There is no significant correlation between the degree to which students feel connected to their instructor and their satisfaction with hybrid courses.

The researcher used a Pearson correlation coefficient to test the relationship between students' perceptions of connectedness with the instructor and their overall satisfaction in the hybrid course. The results of the analysis revealed a strong positive relationship between

students' perceptions of being connected with the instructor (M = 2.19, SD = 0.78) and student

satisfaction (M = 2.10, SD = 0.89) and a statistically significant correlation, $r(35) = 0.705$,

$p<.001$ (see figure 1). As a result of the analysis, the null hypothesis was rejected. In general the

results suggested that students who connected more with their instructor also tended to have high

satisfaction in hybrid courses.

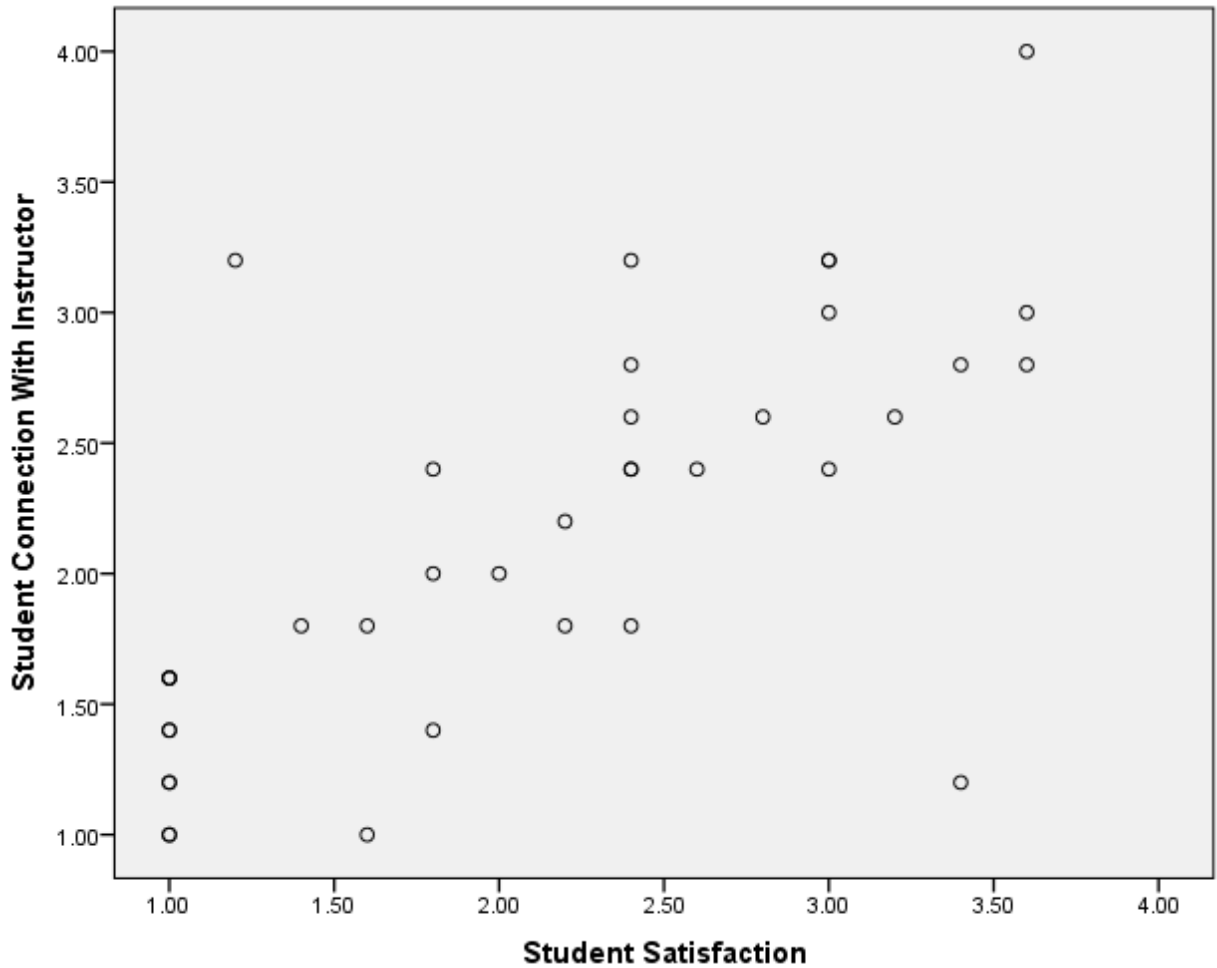*Figure 1*. Student-instructor connection and student satisfaction

Research Question 2

2. Is there a significant correlation between the degree to which students feel connected to other

    students and their satisfaction with hybrid courses?

H₀:2 There is no significant correlation between the degree to which students feel connected to other students and their satisfaction with hybrid courses.

The researcher calculated a Pearson correlation coefficient to test the relationship between student satisfaction and connection to other students. The results of the analysis revealed a strong positive relationship between student satisfaction ($M = 2.10$, $SD = 0.89$) and connection to other students ($M = 2.30$, $SD = 0.82$) and a statistically significant correlation, $r(37) = .545$, $p < .001$ (see figure 2). As a result of the analysis the null hypothesis was rejected. In general the results suggested that students who connected more to their classmates tended to be more satisfied with their hybrid learning experience.
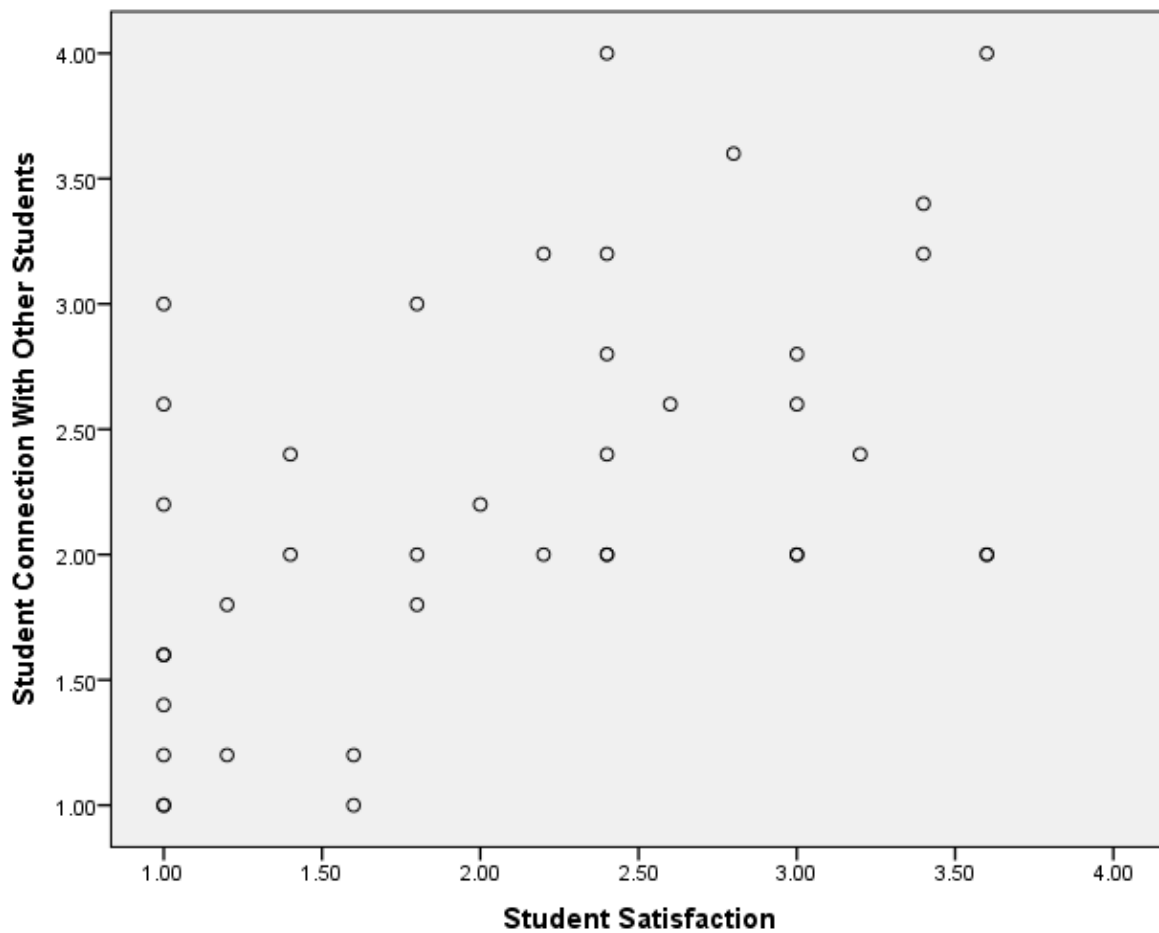

Figure 2. Student-student connection and student satisfaction

Research Question 3

3. Do students find that an in-person component of a hybrid class is important to their success

    in hybrid courses to a significant extent?

H_0:3 Students do not find that an in person component of a hybrid class is

important to their success in their hybrid courses to a significant extent.

The researcher conducted a single sample t-test on the students' opinions of whether the

in-person component of a hybrid class was important to their success. This measure evaluated

whether the mean was significantly different from 1.5. The sample mean of 1.757 (SD=.878)

was not significantly different from 1.5, t(41), -1.757, p=.86, ns (see figure 3). As a result of the

analysis the null hypothesis was not rejected. The 95% confidence interval for the mean of this

question ranged from -.51 to .04. In general the results do not suggest that an in person

component of a hybrid class is important to their success in hybrid courses to a significant extent.
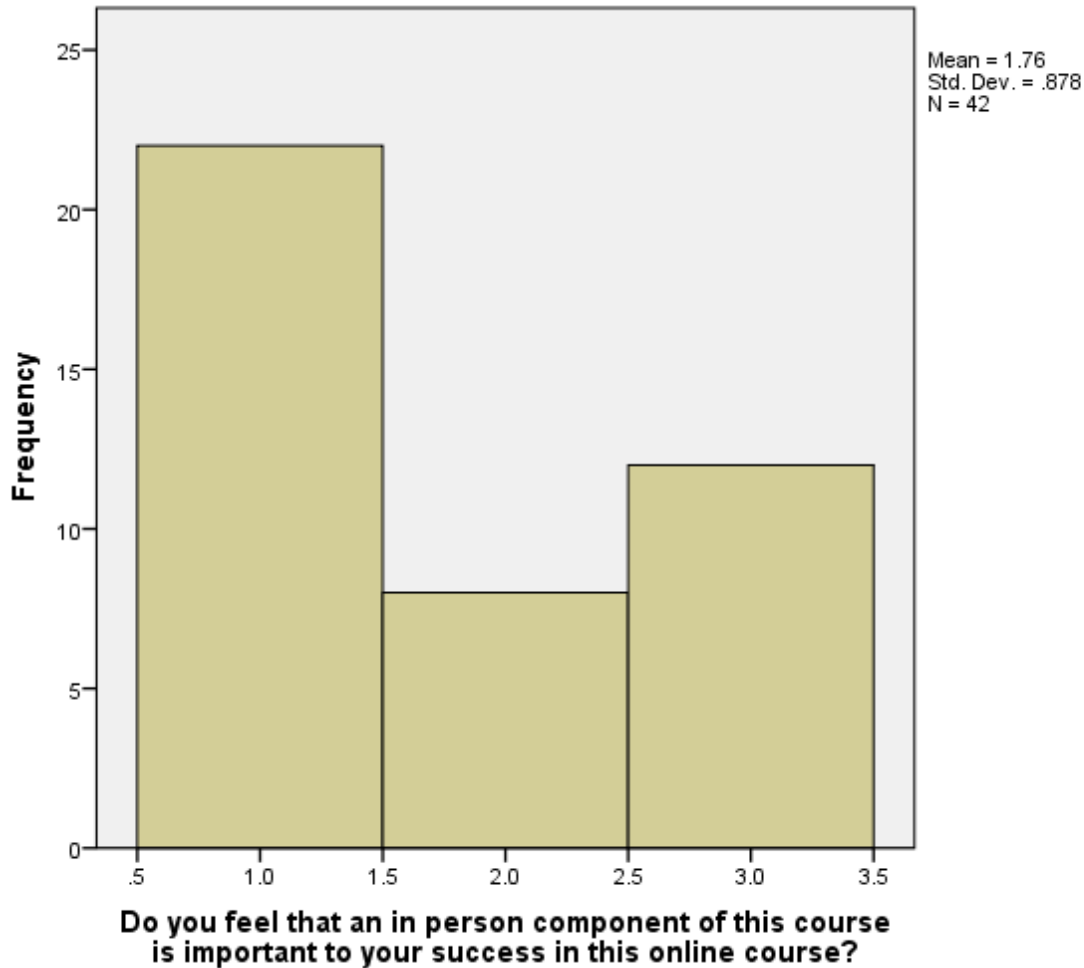
Figure 3. In-person component of hybrid course

Research Question 4

4. Is there a significant correlation between students' technological expertise and satisfaction

    with hybrid courses?

    H_0:4 There is no significant correlation between students' technological expertise

    and satisfaction with hybrid courses.

The researcher used a Pearson correlation coefficient to test the relationship between

student satisfaction and student technological experience. The results of the analysis revealed a

strong positive relationship between student satisfaction (M = 2.09, SD = 0.89) and student

technological experience (M = 1.87, SD = .71) and a statistically significant correlation, $r(36)=.511$, $p=.001$ (see figure 4). As a result of the analysis, the null hypothesis was rejected. In general the results suggested that students with more technological experience tended to have greater satisfaction with their hybrid courses.
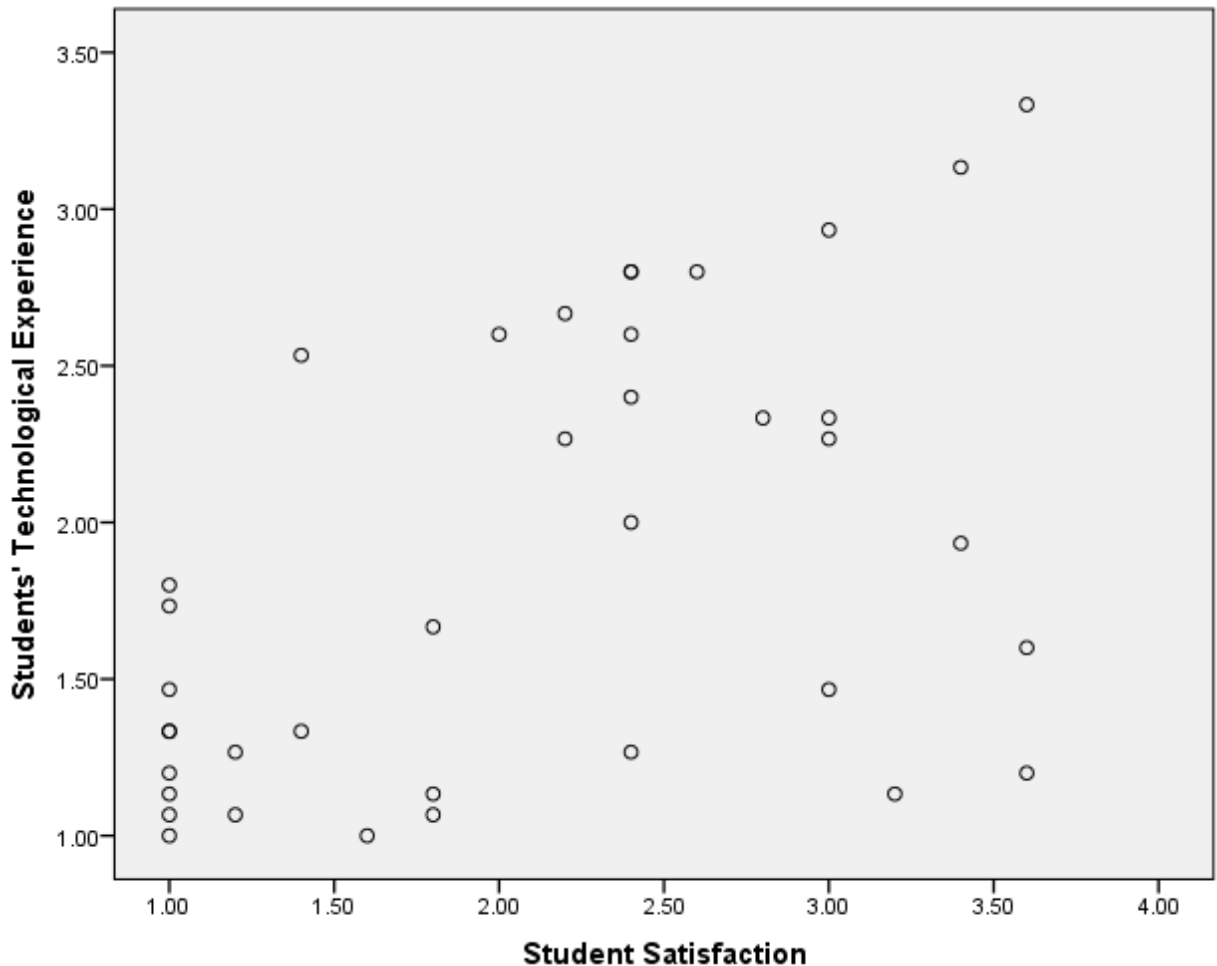
Figure 4. Student satisfaction and technological experience

Research Question 5

5. Are students satisfied with their hybrid courses to a significant extent?

   H_0:5 Students are not significantly satisfied with the hybrid format.

A single sample t-test evaluated student satisfaction scores to determine whether the mean was significantly different than 2.5, the midpoint on the 4 point scale. The sample mean of 2.09 (SD=.891) was significantly different from 2.5, t(38)=-2.822, p=.008 (see figure 5). The 95% confidence interval for the student satisfaction mean ranged from -.6913 to -.1138. The effect size of .45 indicated a medium effect. The results showed that students tended to be dissatisfied with their hybrid courses.
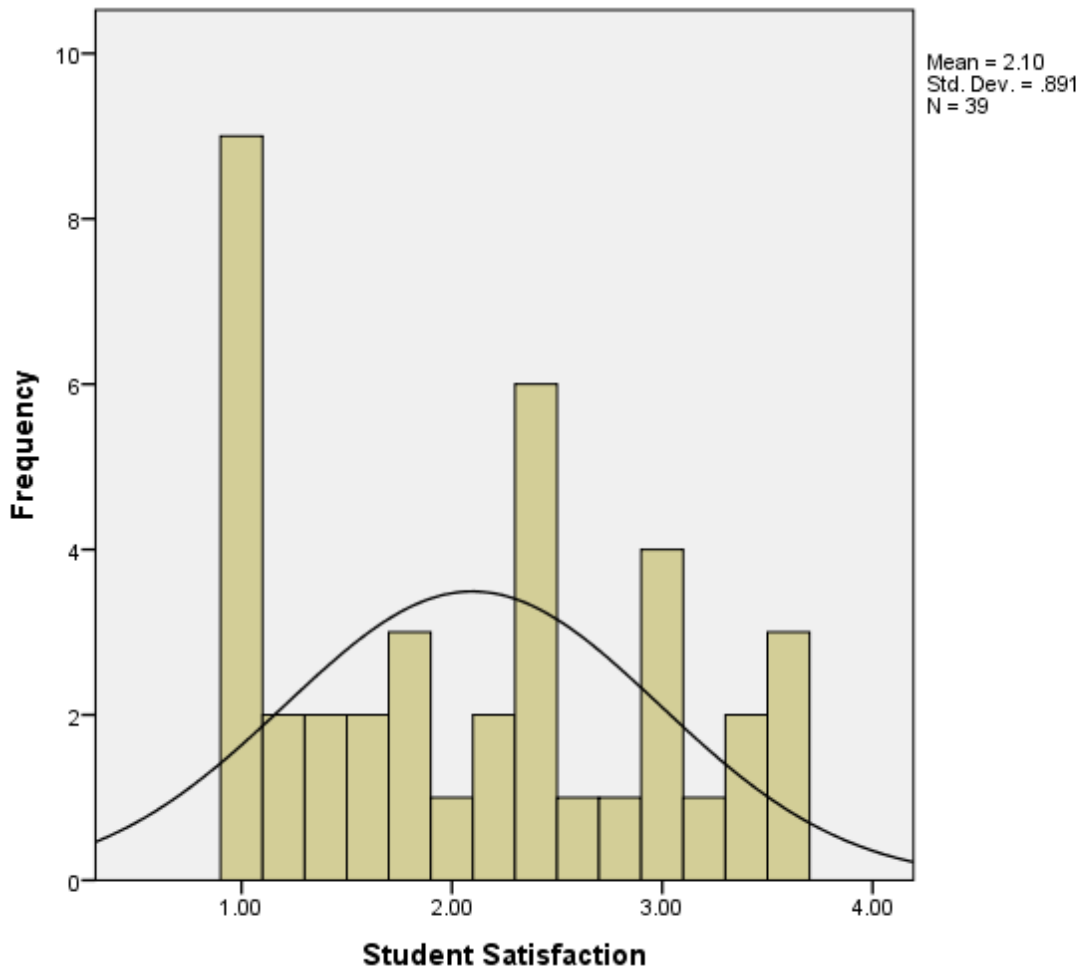
Figure 5. Student satisfaction

Research Question 6

6. Do students feel connected with their instructor to a significant extent?

H_0:6 Students do not significantly feel connected to their instructor

The researcher conducted a single-sample t-test on the student connection with instructor scores to evaluate whether the mean was significantly different from 2.5, the midpoint on a 4 point scale. The sample mean of 2.19 (SD .784) was significantly different from 2.5, $t(37)$=-.2399, p=.022 (see figure 6). The 95% confidence interval for the student connection with instructor scores ranged from -.5631 to -.475. The effect size of .39 indicated a medium effect. The results supported the hypothesis that students did not tend to feel connected with their instructor.

Mean = 2.19
Std. Dev. = .784
N = 38
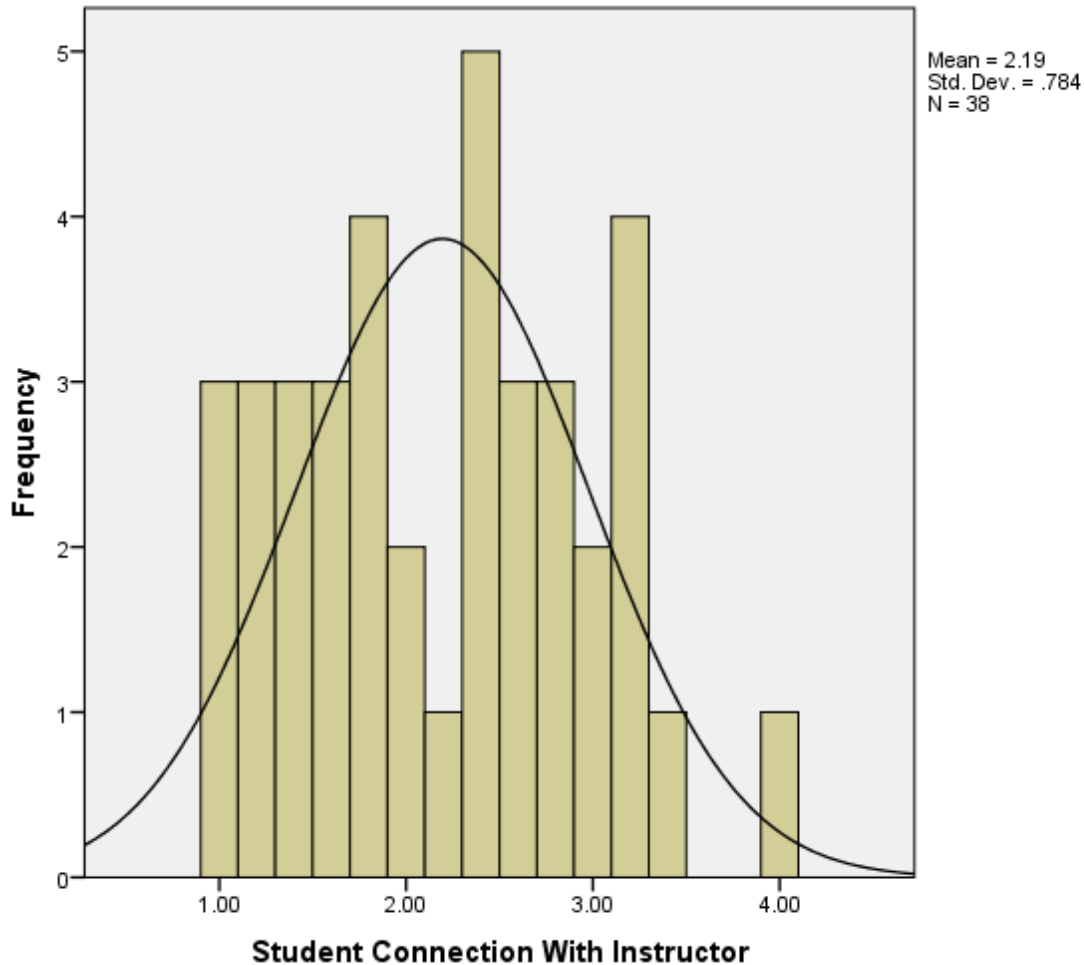
Figure 6. Student-instructor connection

Research Question 7

7. Do students feel connected with their classmates to a significant extent?

H_0:7 Students do not significantly feel connected to their classmates

The researcher conducted a single sample t-test on the scores related to student

connection with other students to evaluate whether the mean was significantly different from 2.5.

The sample mean of 2.3 (SD=.823) was not significantly different from 2.5, t(39)=-1.537,

p=.132, ns. The 95% confidence interval for the mean of this question ranged from -.4631 to

.0631. The results were not significant. Therefore the null hypothesis was not significant.

Research Question 8

8. Are students experienced with the technology used in hybrid classes to a significant extent?

> H_0:8 Students are not significantly experienced with the technology used in the hybrid classes.

The researcher used a single-sample t-test on the technological experience scores to evaluate whether the mean was significantly different from 2.5, the midpoint on a 4 point scale. The sample mean of 1.87 (SD .711) was significantly different from 2.5, $t(37)=-5.479$, $p<.001$ (see figure 7). Therefore, the null hypothesis was rejected. The 95% confidence interval for the technological experience scores ranged from -.8651 to -.398. The effect size of -.89 indicated a large effect. In general students were not experienced to a significant extent with the technology used in hybrid classes.
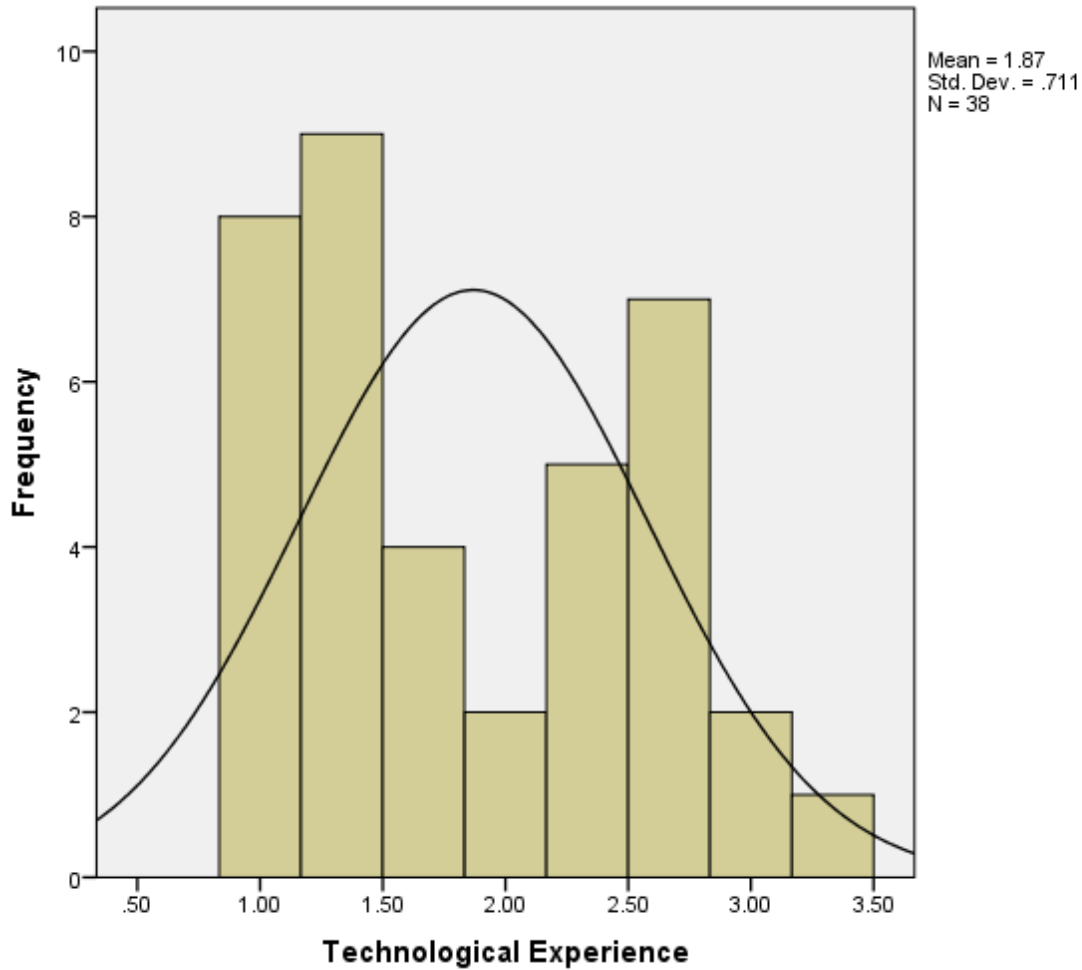
Figure 7. Technological experience

Research Question 9

9. Do students feel that the design of the course helped them learn to a significant extent?

H$_0$:9 Students do not feel significantly that the course design helped them learn.

The researcher conducted a single-sample t-test on the course design scores to evaluate whether the mean was significantly different from 2.5, the midpoint on a 4 point scale. The sample mean of 1.90 (SD=.623) was significantly different from 2.5, t(37)=-.5915, *p<*.001 (see figure 8). Therefore, the null hypothesis was rejected. The 95% confidence interval for the

course design mean ranged from -.801 to -.392. The effect size of -.96 indicated a large effect. In general the results did not suggest that students' feel the course design helped them learn.
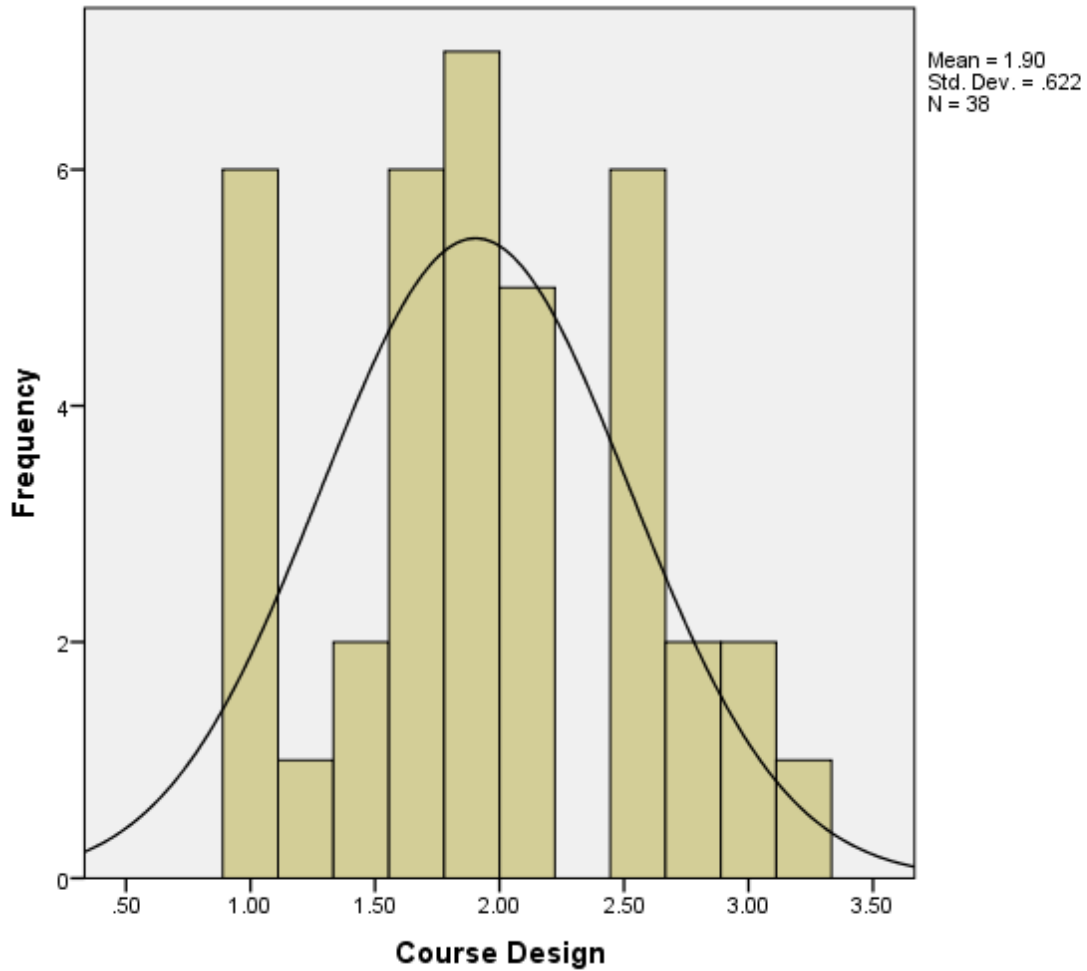
Figure 8. Course design

Open-Ended Questions

At the end of the survey, students were asked to respond to two open-ended questions: a) "What do you feel are the advantages of online learning?" and b) "What do you feel are the disadvantages of online learning?"

What Do You Feel are the Advantages of Online Learning?

Convenience. Of the 36 students who responded to this question, the majority of respondents (27) mentioned items related to convenience as a major advantage to online learning. Some of the statements are below:

"Flexible for people who have busy lifes [sic]. Especially people who are older and have children and busy work schedules."

"Online classes offer flexible time management and are perfect for people who are working while trying to go to school because they are not as time consuming."

"Being able to schedule my course activities around other events in my life. Working on my assignments in different locations (as necessary). Improving my written communications skills. Extending my knowledge of computer applications."

"Scheduling conflicts make online learning very viable. Online learning lets me study and do course work when I have the time."

"Someone who is busy and has a rigid schedule may find that online courses are perfect because they can fit them into any bit of free time, instead of having to schedule around a set class time."

Work at own pace. Several students (13) also responded with statements about the ability to work at their own pace in the online classes. Some of these statements are below:

"A person can go at their own pace in order to get the assignments done."

"Learning at your own speed and completing the assignments at my own pace"

"The scheduled assignments and quizzes are all on my own time (within a certain time frame before it's due of course). An online class paired with face-to-face classes makes the work load much easier to deal with."

"I feel that in general with online learning you can work at your own pace as long as it is done by a set time and you have more time to work around other things."

Several students mentioned that they were able to learn more about their computers through the online and hybrid courses and one mentioned that the courses improved his/her written communication skills.

Other comments. A few comments mentioned that as online students they learned more than just the material, including computer skills and time management, among others. One student stated that, "Online courses for me have made me push myself further. It's basically teaching oneself being a professor isn't present." Another stated, "We learn the way we want to learn and not the way the teacher forces us to learn. If we put forth the effort it's very easy to get a good grade." This shows that some students recognized the ability to learn in their own way and pushed themselves further to achieve more. However, one student commented, "I don [sic] not adivse [sic] other to do online course, not unless they have to."

What do You Feel are the Disadvantages of Online Learning?

Student-instructor interaction. Of the 36 students who responded to this question, 22 mentioned problems connecting with their instructor, including lack of responses to emails and feeling disconnected from their professor, among others. Some of the responses included:

"Not having the instructor there when you need them"

"Not having immediate contact with the instructor if I am having a problem."

"Over learning, without a strong teacher presence I often feel that I must learn every aspect of the subject to prepare for exams, quizzes or test. In class the experience feels more guided and I feel the class expectations are more expressed. Professors help filter out important

information from non-important information. I tend to spend twice as much time on online classes than my face-to-face classes. Need more teacher involvement."

"The lack of information provided by the instructors. Some professors are wonderful with the online classes and than [sic] some are terrible. Astronomy would be a terrible class to take online."

"You don't have as much time with the professor if you struggle with a concept."

"There is not enough communication between the students and the teachers usually, however I have had positive communication is [sic] some online courses"

"Without face-to-face time, understanding is lacking. Questions go unanswered. Limited peer interaction. Getting feedback from the instructor can be frustrating."

"Feedback from teacher. But in saying that my online class teacher always gets back to me quicker than most of my face-to-face class teachers."

"In my experience, it feels disconnected and I have a difficult time learning the material since I am not in an academic setting. Compared to a traditional face-to-face learning experience, online classes are too impersonal. I prefer some rigidity to the learning process, and my online class does not provide that."

"You're not sitting there with a professor in front of you explaining everything and reminding you constantly of due dates."

"You don't receive any interactions with the people in the class and someone [sic] things are easier to learn in person than online because if you don't understand something the teach [sic] can explain it to you in a different way so you can understand."

"When using online learning students are unable to communicate with the teacher effectively. Teachers only meet with students at the scheduled times for testing. If students need help with the material before the test they have to look somewhere else for help."

This shows many of the respondents expressed frustration with the instructors concerning communication issues. Some students mentioned a lack of communication with the instructor made them less likely to continue taking online classes, while others felt that online courses allowed them learn more on their own and in their own way.

Student-student interaction. Twelve students mentioned a lack of communication with other classmates as a disadvantage in their online classes. Overall, these students perceived that a lack of communication and sense of community with their classmates made it more difficult to learn the material and connect with other students. As one student put it,

"Lack of face time with other people. Poverty of interaction with other students and their ideas. Discussion lists and emails are very nice, but don't really encourage either interaction or the development of personal relationship, which is a very important part of the college experience. Lack of immediate feedback can facilitate the development of bad habits in technical practice. Some courses are absolutely NOT suited for online learning."

Other comments included:

"No class interaction. You are on your own."

"Limited peer interaction."

"You don't receive any interactions with the people in the class"

Concerns with Course Materials. Eight students mentioned difficulties in understanding and retaining the materials covered in the online class as a disadvantage. Some of

these students wrote that they could understand the material better in a face-to-face setting or with more interaction with the professor or other students.

"When trying to learn a difficult concept, it would be more benficial ti [sic] be in face-to-face setting."

"You don't have as much time with the professor if you struggle with a concept."

"There are some secitons [sic] of this particular course that I didn't fully understand and actually missed those questions on exams. If I had more time with the professor in a classroom setting, perhaps i [sic] would have understood the material more."

Time management and self-discipline. Seven of the 36 respondents mentioned that time management or self-discipline was a problem in their online classes. Some selected the classes believing them more convenient but then realized that the online class took more time than the on ground class would have. Others mentioned that busy schedules made it difficult for them to focus.

"I feel like every Internet class I have had has involved more work then [sic] in-class versions. I feel like the price you pay for the scheduling flexibility is having to actually do more work."

"If a person in [sic] not very good at time management an online class would not be a very good choice."

"It's very fast paced and requires time management"

"I tend to procrastinate more and I can't focus as much. I feel as a student, I need to be in an actual classroom to learn and do my best."

Other comments. Other notable comments included computer problems (3 respondents), lack of class time (3 respondents), and self-discipline or that the classes were boring and repetitive (2 respondents). Only one student replied there were no disadvantages.

Chapter Summary

In this chapter, the researcher presented and analyzed data obtained from the online and hybrid students during the fall 2014 semester at a community college in Appalachia. There were nine research questions and nine null hypotheses. All data derived from an online survey distributed to 1,061 students resulting in a 4.1% return rate with 44 participants.

The significant findings of this study included a significant positive correlation between students' connection with their instructors and their satisfaction in their hybrid courses, a significant positive correlation that students more connected to their classmates tended to be more satisfied with their hybrid courses, and a significant positive correlation between the students' technological expertise and their overall course satisfaction. It was also found that students were less satisfied with their hybrid courses overall, students did not feel connected to their instructors, had little experience with the technology used in hybrid classes, and did not feel that the course design helped them learn.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to investigate the perceptions of students in hybrid courses at a community college in Appalachia. The study was an exploration of the participants' overall satisfaction scores as well as their connections with faculty and other students, their technological expertise, and their opinions on the course design.

Summary

The population for this study included all students enrolled in hybrid courses at the selected community college. Forty-four students responded of 1,061 possible participants, a 4.15% response rate. Although a small response, the students involved in this study represented participants from 14 different departments with 11 students enrolled in multiple hybrid courses during the selected semester. The department with the most students completing the survey was OFMG (Office Management) with seven students followed by MATH with five. Demographically, participants were primarily female (86%), traditional aged (61% were 18-25), and Caucasian (86%) students. Most were single, had never married (55%), and had no children (52%). The majority of respondents were full-time students (77%) who worked full time (41%), followed closely by those who were full-time students who did not work (34%). Most students had not completed a previous degree (82%). One interesting fact was the high number of respondents (46%) lived within 10 miles of their closest campus followed by 36% living 11-20 miles from campus. Only two students lived more than 30 miles from their closest campus. Most previously completed online courses (73%) and chose to take their current online classes

because it was required for their degree (80%). The majority (81%) stated they were also enrolled in a face-to-face class during the term under study. When asked their reason for taking the classes online, 39% mentioned scheduling conflicts, including work, school, and childcare issues. Of the group, 14% stated they preferred online classes, 12% stated the class offering was only online, 2 students (5%) mentioned registering for an online class by accident.

Conclusions

Analysis of research questions 1, 2, and 4 used a Pearson correlation coefficient. Each questions showed a significant positive correlation. The results showed that student connection to instructor, student connection to other students, and student technological experience significantly positively correlated with student satisfaction levels in hybrid courses at the selected community college.

Analysis of research questions 3, 5, 6, 7, 8, and 9 was with a single sample t-test. Research questions 3 and 7 showed no significance, while research questions 5, 6, 8 and 9 offered significant results. These questions showed that students were significantly less satisfied with their online and hybrid courses, did not feel connections with their instructors, were inexperienced with the technology used in their online and hybrid courses, and did not perceive that the course design helped them learn.

Recommendations for Practice

The following are recommendations for practice:

1. Instructor-student communication needs to be increased throughout the online and hybrid course environment.

Instructors could use video conferencing, emails, chat programs, virtual office hours, and social media, among others. Research prior to this study showed a strong connection between student satisfaction and the connection of the student to the professor. Student-instructor interaction has been shown to be very influential in student satisfaction in online and hybrid courses (Pallof & Pratt, 2007). Faculty must be very clear in their course requirements and provide timely feedback to their participants (Babb et al., 2010, Roach & Lemasters, 2006). Students benefit from personalized contact with their professors (Roberson & Klotz, 2002). The conversations with their instructors can be formal or informal, but the professors need to be available (Howard, 2009).

2. Student-student communication needs to be increased throughout the online and hybrid course environment.

With instructor help, students could institute online discussions, study groups, video conferencing, group projects, emails, and chat programs, among others. Babb et al. (2010), discussed the need for student interaction on a variety of levels. Education is more than reading a textbook; it includes collaboration with other learners and the instructor (Dixson, 2010, Pallof & Pratt, 2007; Sorden & Munene, 2013).

3. Students need to understand the computer software and hardware requirements of the course and be familiar with those requirements.

The school could offer a "How to Take an Online or Hybrid Course" workshop, providing step-by-step instructions for students and technical support as needed. In addition, instructors should inform students concerning required software and hardware before the class begins in order for students to determine whether they are prepared for the class. Instructors could include brief tutorials to show students specifics of course assignments requiring

unfamiliar software or hardware. Orientations can provide students with realistic expectations for the online or hybrid environment and ensure that they are familiar with the technology required for the online or hybrid course before it has a chance to affect their grades (Jones, 2013).

4. The institution might require students to pass a computer literacy test before registering for online or hybrid classes to ensure familiarity with the requirements and successful completion of the course.

Some students register for classes without realizing the technological requirements of the course. This could be covered in Recommendations for Future Practice #4, but might be a separate requirement as well. Without proper knowledge of the required programs and computers in general, we are setting the students up to fail (Roach & Lemasters, 2006). Educators may make the assumption that anyone taking an online course is tech savvy but that is not always the case (Conrad & Donaldson, 2011l; Sull, n.d.). Often students who are unfamiliar with the technology used in the class experience high levels of stress that may reduce their overall satisfaction in the course (Sull, n.d.).

Recommendations for Future Research

The following are recommendations for further research:

1. Future research should include a greater pool of respondents. Having the surveys posted on the online course site page could increase respondents and offer conclusions applicable to the entire population of the study.

2. Including more than one school to attract a larger population and different viewpoints might provide more information on the overall perceptions of online and hybrid education.

3. Future researchers could conduct a qualitative or mixed methods study. Personal interviews or focus groups would be a good way to obtain more in-depth information regarding their satisfaction with online and hybrid education.

4. Both qualitative and quantitative studies could be completed with faculty members as participants to ascertain the way in which they communicate with students and create student-student interaction.

5. Future researchers could also consider conducting a longitudinal study by comparing the similarities and differences in student satisfaction over time.

6. Future researchers could analyze course offerings and the types of activities and materials used to determine whether student satisfaction increased or decreased with different materials, content, and formats.

REFERENCES

Akin, L., & Neal, D. (2007). CREST+ model: Writing effective online discussion questions. *Journal of Online Learning and Teaching*, 3(2). Retrieved (January, 2012) from http://jolt.merlot.org/vol3no2/akin.htm

Allen, I. E., & Seaman, J. (2010). *Class differences*. Babson Park, MA: The Sloan Consortium. Retrieved (March, 2012) from http://sloanconsortium.org/sites/default/files/class_differences.pdf

Ammendolia, M. (n.d.). *11 strategies for managing your online courses: The online instructor's challenge: Helping "newbies"* (Faculty focus special report). Madison WI: Magna. Retrieved (March, 2012) from http://www.facultyfocus.com/wp-content/uploads/images/report-11-strategies-for-managing-online-courses1.pdf

An, J., & Levin, J. (n.d.). *Online discourse patterns: Building an instructional framework for designing educational discourses on networks*. Retrieved (March, 2012) from http://lrs.ed.uiuc.edu/aera/03/communities/aera-03-an-levin-paper-fina.htm

Ashby, J., Sadera, W., & McNary, S. (2011). Comparing student success between developmental math courses offered online, blended, and face-to-face. *Journal of Interactive Online Learning*, *10*, 128-140.

Aycock, A., Garnham, C., & Kaleta, R. (2002). Lessons learned from the hybrid course project. *Teaching with Technology Today, 8, 1-6*

Babb, S., Stewart, C., & Johnson, R. (2010). Constructing communication in blended learning environments: Students' perceptions of good practice in hybrid courses. *MERLOT Journal of Online Learning and Teaching*, *6*, 735-753.

Bali, M. (2014). MOOC pedagogy: Gleaning good practice from existing MOOCs. *MERLOT Journal of Online Learning and Teaching, 10*, 44-56.

Bain, K. (2004). *What the best college teachers do*. Cambridge, MA: Harvard University Press.

Bambara, C. S., Harbour, C. P., Davies, T. G., & Athey, S. (2009). The lived experiences of community college students enrolled in high-risk online courses. *Community College Review*, *36*, 219-238.

Berge, Z. (1996). Where interaction intersects time. *MC Journal: The Journal of Academic Media Librarianship*, *4*. Retrieved (March, 2012) from http://wings.buffalo.edu/publications/mcjrnl/v4n1/berge.html

Burnett, K., Bonnici, L. J., Miksa, S. D., & Kim, J. (2007). Frequency, intensity and topicality in online learning: An exploration of the interaction dimensions that contribute to student satisfaction in online learning. *Journal of Education for Library and Information Science*, *48*(1), 21-35.

Cavanaugh, J. (2005). Teaching online: A time comparison. *Online Journal of Distance Learning Administration*, *8*(1). Retrieved (October, 2010) from http://www.westga.edu/~distance/ojdla/spring2005/cavanaugh81.htm

Charlier, B. (2011). Actors: From audience to provider. *The American Journal of Distance Education*, *25*, 226-237.

Chickering, A. W., & Gamson, Z. F. (1987). *Seven principles for good practice in undergraduate education*. Retrieved (October, 2010) from http://learningcommons.evergreen.edu/pdf/fall1987.pdf

Christopher, M., Thomas, J., & Tallent-Runnels, M. (2004). Raising the bar: Encouraging high level thinking in online discussion forums. *Roeper Review*, *26*(3), 166-171.

Chronicle Research Services. (2009). *The college of 2020: Students*. Retrieved (March, 2012) from http://www.compassknowledge.com/wp-content/uploads/2010/04/06-2009-The-2020-Students-Part-1of-3-The-Chronicle-of-HE.pdf

Cobb, S. (2009). Social presence and online learning: A current view from a research perspective. *Journal of Interactive Online Learning*, *8*, 241-254.

Conrad, R., & Donaldson, J. (2011). *Engaging the online learner*. San Francisco, CA: Jossey-Bass.

Dixson, M. (2010). Creating effective student engagement in online courses: What do students find engaging. *Journal of the Scholarship of Teaching and Learning*, *10*(2), 1-13.

Dutton, J., & Dutton, M. (2005). Characteristics and performance of students in an online section of business statistics. *Journal of Statistics Education*, *13*. Retrieved (July, 2010) from http://www.amstat.org/publications/jse/v13n3/dutton.html

EDUCAUSE. (2011). *7 things you should know about . . . MOOCs.* Retrieved (June, 2012) from http://www.educause.edu/library/resources/7-things-you-should-know-about-moocs

EDUCAUSE. (2012). *What campus leaders need to know about MOOCs: An EDUCAUSE executive briefing.* Retrieved (April, 2013) from http://www.educause.edu/library/resources/what-campus-leaders-need-know-about-moocs

EDUCAUSE. (2013). *7 things you should know about . . . MOOCs II*. Retrieved (February, 2014) from http://www.educause.edu/library/resources/7-things-you-should-know-about-moocs-ii

Elluminate. (2009*). The impact of synchronous online learning in academic institutions: Customer experiences from K12 and higher education.* Retrieved (April, 2014) from http://www.elluminate.com/downloads/whitepapers/synchronous-impact-white-paper.pdf

Funk, J. T. (2005). *At-risk online learners: Reducing barriers to success*. Retrieved (June, 2009) from http://elearnmag.acm.org/featured.cfm?aid=1082221

Garnham, C., & Kaleta, R. (2002). Introduction to hybrid courses. *Teaching with Technology Today*, *8*(6). Retrieved (April, 2014) from https://hccelearning.files.wordpress.com/2010/09/introduction-to-hybrid-course1.pdf

Garza Mitchell, R. L. (2009). Online education and organizational change. *Community College Review*, *37*, 81-101.

Gulati, S. (2004). *Constructivism and emerging online learning pedagogy: A discussion for formal to acknowledge and promote the informal*. Retrieved (December, 2009) from http://www.leeds.ac.uk/educol/documents/00003562.htm

Harris, G. (2010). To infinity and beyond. *Kappa Delta Pi Record*, *46*, 118-120.

Herbert, M. (2006). Staying the course: A study in online student satisfaction and retention. *Online Journal of Distance Learning Administration.* Retrieved from http://www.westga.edu/~distance/ojdla/winter94/herbert94.htm

Howard, S. (2009). The benefits of face-to-face interaction in the online freshman composition course. *Journal of Online Learning and Teaching*, *5*(4). Retrieved from http://jolt.merlot.org/vol5no4/howard_1209.htm

Ioannou, A., & Hannafin, R. D. (2008). Course management systems: Time for users to get what they need. *TechTrends*, *52*(1), 46-50.

Jafari, A., McGee, P., & Carmean, C. (2006). Managing courses, defining learning: What faculty, students, and administrators want? Retrieved (August, 2009) from http://www.educause.edu/ero/article/managing-courses-defining-learning-what-faculty-students-and-administrators-want

Jones, K. (2013). Developing and implementing a mandatory online student orientation. *Journal of Asynchronous Learning Networks.* 17 (1), p. 43-45

Kelly, R. (2009). *Three factors in online student satisfaction*. Retrieved from http://www.facultyfocus.com/articles/asynchronous-learning-and-trends/three-factors-in-online-student-satisfaction/

Kelly, R. (n.d.a). *11 strategies for managing your online courses: Introduction* (Faculty focus special report). Madison, WI: Magna.

Kelly, R. (n.d.b). *11 strategies for managing your online courses: The challenge of teaching across generations* (Faculty focus special report).. Madison WI: Magna.

Kingma, B., & Keefe, S. (2006). An analysis of the virtual classroom: Does size matter? Do residencies make a difference? Should you hire that instructional designer? *Journal of Education for Library and Information Science*, *47*, 127-143.

Koole, M., McQuilkin, J. L., & Ally, M. (2010). Mobile learning in distance education: Utility or futility. *Journal of Distance Education*, *24*(2), 59-82.

Lehman, R., & Conceição, S. (2010). *Creating a sense of presence in online teaching: How to "be there" for distance learners*. San Francisco, CA: Jossey-Bass.

Lim, D., Morris, M., & Yoon, S. (2006). Combined effect of instructional and learner variables on course outcomes within an online learning environment. *Journal of Interactive Online Learning, 5*(3), 255-269.

MacDonald, C., & Thompson, T. (2005). Structure, content, delivery, service, and outcomes: Quality e-learning in higher education. *The International Review of Research in Open and Distance Learning*, *6*. Retrieved (June, 2008) from http://www.irrodl.org/index.php/irrodl/article/view/237/321

Muirhead, B. (2000). Enhancing social interaction in computer-mediated distance education. *Ed at a Distance: Magazine and Ed Journal*, *15*(4). Retrieved (April, 2009) from http://www.usdla.org/html/journal/APR01_Issue/article02.html

Nonnecke, B. (2002). Silent participants: Getting to know lurkers better. In C. Lueg, & D. Fisher (Eds.), *From usenet to coWebs: Interacting with social information spaces* (pp. 110-132). London, United Kingdom: Springer-Verlag.

Norin, L. & Wall, T. (n.d.). *11 strategies for managing your online courses: Trial by fire: Online teaching tips that work* (Faculty focus special report). Madison, WI: Magna

Pallof, R., & Pratt, K. (2007). *Building online learning communities* (2nd ed.). San Francisco, CA: Jossey-Bass.

Panagopoulos, L. (n.d.). *11 strategies for managing your online courses: Virtual sections: A creative strategy for managing large online classes* (Faculty focus special report). Madison WI: Magna.

Pirani, J. (2013). A compendium of MOOC perspectives, research, and resources. *EDUCAUSE Review Online.* Retrieved (June, 2014) from

http://www.educause.edu/ero/article/compendium-mooc-perspectives-research-and-resources

Randolph, J., & Crawford, L. (2013). Factor validity and reliability and the sense of community in online courses scale. *Journal of Interactive Online Learning*, *12*, 53-69.

Roach, V., & Lemasters, L. (2006). Satisfaction in online learning: A comparative descriptive study. *Journal of Interactive Online Learning*, *5*, 317-332.

Roberson, T., & Klotz, J. (2002). How can instructors and administrators fill the missing link in online instruction. *Online Journal of Distance Education*, *5*. Retrieved (July, 2009) from http://www.westga.edu/~distance/ojdla/winter54/roberson54.htm

Rovai, A. (2002). Building a sense of community at a distance. *International Review of Research in Open and Distance Learning*, *3*, 1-16.

Shelton, K., & Saltsman, G. (2004). Tips and tricks for teaching online: How to teach like a pro. *International Journal of Instructional Technology & Distance Learning*. Retrieved (May, 2010) from http://itdl.org/journal/Oct_04/article04.htm

Siemens, G. (2004). Learning management systems: The wrong place to start learning. *Elearnspace: Everything elearning*. Retrieved (August, 2010) from http://www.elearnspace.org/articles/lms.htm

Skylar, A. (2009). A comparison of asynchronous online text-based lectures and synchronous interactive web conferencing lectures. *Issues in Teacher Education*, *18*(2), 69-84.

Smith, C., & Winking-Diaz, A. (2004). Increasing students' interactivity in an online course. The *Journal of Interactive Online Learning*, *2*, 1-25.

Sorden, S. s., & Munene, I. I. (2013). Constructs related to community college student satisfaction in blended learning. *Journal of Information Technology Education*, 12, 251-270.

Southwest Educational Development Laboratory. (2003). Rural students at risk in Arkansas, Louisiana, New Mexico, Oklahoma and Texas. *SEDL: Advancing Research, Improving Education*. Retrieved (December, 2009) from http://www.sedl.org/rural/atrisk/welcome.html

Stodel, E., Thompson, T., & MacDonald, C. (2006). Learners' perspectives on what is missing from online learning: Interpretations through the community of inquiry framework. *The International Review of Research in Open and Distance Learning*, *7*. Retrieved (October, 2008) from http://www.irrodl.org/index.php/irrodl/article/viewArticle/325/743

Strachota, E. (2003). *Student satisfaction in online courses: An analysis of the impact of learner-content, learner-instructor, learner-learner and learner-technology interaction.* Doctoral dissertation, University of Wisconsin, Milwaukee. Ann Arbor, MI: UMI.

Sull, E. (n.d.). *11 strategies for managing your online courses. 10 ways to get reluctant and downright scared students enthusiastic about taking online courses* (Faculty focus special report). Madison WI: Magna.

Tapscott, D. (2009). *Higher education is stuck in the Middle Ages – Will universities adapt or die off in our digital world?* Retrieved (July, 2011) from http://www.alternet.org/story/140703/higher_education_is_stuck_in_the_middle_ages_--_will_universities_adapt_or_die_off_in_our_digital_world/

Tolan, D. (n.d.). *11 strategies for managing your online courses*: *Making visible the invisible* (Faculty focus special report).Madison WI: Magna.

Tyler-Smith, K. (2006). Early attrition among first time elearners: A review of factors that contribute to drop-out, withdrawal and non-completion rates of adult learners undertaking elearning programmes. *Journal of Online Learning and Teaching*, *2*(2). Retrieved from http://jolt.merlot.org/Vol2_No2_TylerSmith.htm

Willging, P., & Johnson, S. (2009). Factors that influence students' decisions to drop out of online courses. *Journal of Asynchronous Learning Networks*, *13*, 115-127.

Williams, J., & Chinn, S. J. (2009). Using web 2.0 to support the active learning experience. *Journal of Information Systems Education*, *20*, 165-174.

APPENDICES

Appendix A: Online Student Satisfaction Survey

Introduction

This survey will take approximately 15-20 minutes to complete. Data collected will be used for research purposes and to improve the quality of your online courses.

Your responses are confidential.

If you are enrolled in more than one online course, answer with your overall experiences in the online courses you are taking THIS semester. Do not answer the survey based on previous online course experiences. Please answer each question by either typing in the answer or clicking in the circle.

Demographics:

1. Online Course(s) enrolled in this term. Please list only current courses and include the course number and name. For example: SOCI 1010—Introduction to Sociology

   _____
   _____
   _____
   _____

2. Gender:
   ■ Male
   ■ Female

3. Age:
   ■ 18-25
   ■ 26-35
   ■ 36-45
   ■ 45-55
   ■ Over 55

4. I am:
   ■ African American
   ■ Asian or Pacific Islander
   ■ Caucasian
   ■ Hispanic/Latino
   ■ American Indian or Alaska Native
   ■ Multiracial
   ■ Other: _____

5. I am:

- ■ Single, never married
- ■ Married
- ■ Separated or Divorced
- ■ Widowed
- ■ Living with partner
- ■ Other: _____

6. How many children (under age 18) do you have living in your home?
   - ■ 0
   - ■ 1
   - ■ 2
   - ■ 3
   - ■ More than 3

7. I am a:
   - ■ Full-time student (at least 12 credit hours this term)
   - ■ Part-time student (less than 12 credit hours this term)

8. I work:
   - ■ Full-time (32 or more hours per week)
   - ■ Part-time (less than 32 hours per week)
   - ■ I do not work

9. I have been attending this college for _____ year(s)
   - ■ 0 (this is my first year attending this college)
   - ■ 1
   - ■ 2
   - ■ 3
   - ■ 4 or more

10. Do you have a previously earned degree?
    - ■ No
    - ■ Yes (please select your level of education below)

11. If yes, My highest previously earned degree is:
    - ■ Associates
    - ■ Bachelors
    - ■ Masters
    - ■ Doctorate
    - ■ Other

12. I live _____ miles from the nearest branch of my campus:
    - ■ 0-10
    - ■ 11-20
    - ■ 21-31
    - ■ 31-40

- Over 40

Online Survey

13. Have you successfully completed an online class before?
- No
- Yes

14. If yes, how many? _____

15. Why did you take this class? _____ (Example: Personal Growth, Required Course, Elective, etc.)

16. Why did you take this (these) class(es) online? _____
(Example: Scheduling issues, prefer online courses, etc.)

17. Are you also enrolled in a face-to-face class this semester?
- No
- Yes

18. To what degree was access to your online course(s) adequate?
- 4 (very good)
- 3
- 2
- 1 (poor)

19. To what degree was technical support for your online course(s) adequate?
- 4 (very good)
- 3
- 2
- 1 (poor)
- I did not use technical support

20. To what degree was the online course design easy to use and understand?
- 4 (very good)
- 3
- 2
- 1 (poor)

21. To what degree was the navigation structure easy to use and understand?
- 4 (very good)
- 3
- 2
- 1 (poor)

22. Did you attend an on-campus orientation?

- No
- Yes

23. How many face-to-face class sessions did you attend for your online course?
- 0
- 1
- 2
- 3
- 4
- 5
- More than 5

24. If this course were not available online, would you have taken it in person (face-to-face) this semester?
- No
- Yes
- Possibly

25. Do you feel that an in person component of this course is important to your success in this online course?
- No
- Yes
- Unsure
-

25. How would you rate your experience with computers prior to this course?
- none
- very limited
- some experience
- quite a lot
- extensive

26. Please indicate the computer software packages that you have used (check all that apply)
- Word processing software packages
- Spreadsheets
- Databases
- Presentation packages (ex: PowerPoint)
- Desktop publishing
- Statistics packages

27. Have you taken any courses that teach you how to use a computer?
- No
- Yes

For each of the following mark: Strongly Disagree, Disagree, Agree, Strongly Agree

28. The course's documents—lessons or lecture notes—used in this class facilitated my learning.	Strongly Disagree	Disagree	Agree	Strongly Agree
29. I received timely feedback (within 24-48 hours) from my professor.	Strongly Disagree	Disagree	Agree	Strongly Agree
30. The websites linked to this course facilitated my learning.	Strongly Disagree	Disagree	Agree	Strongly Agree
31. I felt frustrated by the lack of feedback from my teacher.	Strongly Disagree	Disagree	Agree	Strongly Agree
32. The assignments and projects in this course facilitated my learning.	Strongly Disagree	Disagree	Agree	Strongly Agree
33. I was able to get individualized attention from my teacher when needed.	Strongly Disagree	Disagree	Agree	Strongly Agree
34. This course created a sense of community among students.	Strongly Disagree	Disagree	Agree	Strongly Agree
35. I was able to share my viewpoint with fellow students.	Strongly Disagree	Disagree	Agree	Strongly Agree
36. I am very satisfied with this online course.	Strongly Disagree	Disagree	Agree	Strongly Agree
37. Preparation for quiz/exams in this course facilitated my learning.	Strongly Disagree	Disagree	Agree	Strongly Agree
38. The teacher functioned as a facilitator of the course by continuously encouraging communication.	Strongly Disagree	Disagree	Agree	Strongly Agree
39. I was able to ask for clarification from a fellow student when needed.	Strongly Disagree	Disagree	Agree	Strongly Agree
40. I would like to take another online course.	Strongly Disagree	Disagree	Agree	Strongly Agree

41. The learning activities in this course required application of problem solving skills that facilitated learning.	Strongly Disagree	Disagree	Agree	Strongly Agree
42. I received timely (within 24-48 hours) feedback from other students in the class.	Strongly Disagree	Disagree	Agree	Strongly Agree
43. I feel this online class experience helped improve my written communication skills.	Strongly Disagree	Disagree	Agree	Strongly Agree
44. The learning activities in this course required critical thinking that facilitated my learning.	Strongly Disagree	Disagree	Agree	Strongly Agree
45. This online course encouraged students to discuss ideas and concepts with other students.	Strongly Disagree	Disagree	Agree	Strongly Agree
46. This online course did not meet my learning needs.	Strongly Disagree	Disagree	Agree	Strongly Agree
47. Although I could not see the teacher of the class, I always felt his/her presence.	Strongly Disagree	Disagree	Agree	Strongly Agree
48. I would recommend this course to others.	Strongly Disagree	Disagree	Agree	Strongly Agree
49. I learned as much in this online course as I have in person (face-to-face) courses.	Strongly Disagree	Disagree	Agree	Strongly Agree
50. Online courses are as effective as in person (face-to-face) courses.	Strongly Disagree	Disagree	Agree	Strongly Agree
51. I can deal with most difficulties I encounter when using computers.	Strongly Disagree	Disagree	Agree	Strongly Agree
52. Working with computers is very easy.	Strongly Disagree	Disagree	Agree	Strongly Agree
53. I am very unsure of my abilities to use computers.	Strongly Disagree	Disagree	Agree	Strongly Agree

54. I enjoy working with computers.	Strongly Disagree	Disagree	Agree	Strongly Agree
55. Computers make me much more productive.	Strongly Disagree	Disagree	Agree	Strongly Agree
56. I often have difficulties when learning to use a new computer software package.	Strongly Disagree	Disagree	Agree	Strongly Agree
57. I am confident in my abilities to use computers.	Strongly Disagree	Disagree	Agree	Strongly Agree
58. Working with computers is very confusing.	Strongly Disagree	Disagree	Agree	Strongly Agree
59. Using computers makes learning more interesting.	Strongly Disagree	Disagree	Agree	Strongly Agree
60. I have frequent problems when trying to use computers.	Strongly Disagree	Disagree	Agree	Strongly Agree
61. Computer software packages make learning easier.	Strongly Disagree	Disagree	Agree	Strongly Agree
62. Computers are good aids to learning.	Strongly Disagree	Disagree	Agree	Strongly Agree
63. I find working with computers frustrating.	Strongly Disagree	Disagree	Agree	Strongly Agree
64. I consider myself a skilled computer user.	Strongly Disagree	Disagree	Agree	Strongly Agree
65. When using computers, I worry that I might press the wrong button and damage the computer.	Strongly Disagree	Disagree	Agree	Strongly Agree

Open Ended Questions:

66. What do you feel are the advantages of online learning?

_____

_____

_____

67. What do you feel are the disadvantages of online learning?

_____

_____

_____

Appendix B: Informed Consent

Dear Students:

I am a doctoral student at East Tennessee State University working on a dissertation studying student satisfaction in online courses. This study will involve all students who are enrolled in an online or hybrid course at your college. You have been selected to participate in this research because you are enrolled in an online or hybrid course.

Your participation in this study is voluntary and you may end your participation at any time during the survey. The purpose of the study is to determine how student satisfaction is influenced by a variety of factors in your person experience. I encourage your participation as this will help your college develop better learning experiences for their online and hybrid students. Note: Students who are under age 18 are unable to participate in this study at this time.

The survey will only take about 15-20 minutes to complete. Your answers will be completely confidential and your participation is voluntary. Your class grades or standing will not be affected by your level of participation in this study.

To complete the survey, please click the following link:

https://www.surveymonkey.com/s/CVT6CVC

I thank you for your consideration and voluntary participation in this study.

Sincerely,

Angela S. Elkins

Doctoral Candidate/ East Tennessee State University

Email: zase1@goldmail.etsu.edu

Appendix C: Approvals

East Tennessee State University
Office for the Protection of Human Research Subjects • Box 70565 • Johnson City, Tennessee 37614-1707
Phone: (423) 439-6053 Fax: (423) 439-6060

IRB APPROVAL – Initial Exempt

October 21, 2014

Angie Elkins

RE: Student Satisfaction in Hybrid Education
IRB#: c1014.10e
ORSPA#: ,

On **October 21, 2014**, an exempt approval was granted in accordance with 45 CFR 46. 101(b)(2). It is understood this project will be conducted in full accordance with all applicable sections of the IRB Policies. No continuing review is required. The exempt approval will be reported to the convened board on the next agenda.

- xform New Protocol Submission, online student satisfaction survey, Informed Consent, CV, IRB approval from Northeast State Community College

Projects involving Mountain States Health Alliance must also be approved by MSHA following IRB approval prior to initiating the study.

Unanticipated Problems Involving Risks to Subjects or Others must be reported to the IRB (and VA R&D if applicable) within 10 working days.

Proposed changes in approved research cannot be initiated without IRB review and approval. The only exception to this rule is that a change can be made prior to IRB approval when necessary to eliminate apparent immediate hazards to the research subjects [21 CFR 56.108 (a)(4)]. In such a case, the IRB must be promptly informed of the change following its implementation (within 10 working days) on Form 109 (www.etsu.edu/irb). The IRB will review the change to determine that it is consistent with ensuring the subject's continued welfare.

Sincerely,
Stacey Williams, Chair
ETSU Campus IRB

Accredited Since December 2005

RE: Dissertation Research
Church, Connie R

Sent: Tuesday, September 23, 2014 2:34 PM
To: Elkins, Angela S.

Good Afternoon Angie,

Congratulations! Your research project has been granted preliminary approval by the Northeast State Community College IRB. Full approval shall be granted upon the receipt of the IRB approval from ETSU.

At that time, we can work together to disseminate the survey information to our online community.

One point that was mentioned was that question number 52 does not seem to be a complete statement.

I look forward to working with you!

Smiles, Connie

NORTHEAST STATE
We're here to get you there

Connie Church
Director of Research and External Reporting

Research, Analytics and Planning Office

Northeast State Community College
CRChurch@NortheastState.edu
Phone 423.323.3191 ext. 3478

Dear Dr. Strachota,

This letter confirms our previous conversations regarding the use of your survey instrument for my dissertation at East Tennessee State University entitled "An Analysis of Student Satisfaction in Hybrid Courses at a Community College in Southern Appalachia". I would like your permission to reprint in my dissertation a modified version of your survey instrument from your dissertation "Student satisfaction in online courses: An analysis of the impact of learner-content, learner-instructor, learner-learner and learner-technology interaction."

The requester permission extends to any future revisions and editions of my dissertation including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by UMI. These rights will in no way restrict publication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that you own (or your company owns) the copyright to the above described material

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me by email. Thank you very much.

Sincerely,

Angela Elkins

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

Signature: __*Elaine Strachota*_, Ph.D, MS., OTR_____

Date: _____March 21, 2015_____

VITA

ANGELA ELKINS

Education:	Public Schools, Currituck County, North Carolina
	B.S. Sociology, Appalachian State University, Boone, North Carolina 2001
	M.A. Sociology, East Tennessee State University, Johnson City, Tennessee 2005
	Ed. D. Educational Leadership, East Tennessee State University, Johnson City, Tennessee 2015
Professional Experience:	Program Specialist/Advisor, Evening and Weekend College, Virginia Intermont College, Bristol, Virginia, 2006-2010
	Adjunct Instructor, Sociology and Criminal Justice, Virginia Intermont College, Bristol, Virginia, 2007-2014
	Doctoral Intern, Evening and Distance Education, Northeast State Community College, Blountville, Tennessee, 2009
	Teaching Assistant/Doctoral Intern, Service-Learning, East Tennessee State University, Johnson City, Tennessee, 2009
	Adjunct Instructor, Service-Learning, East Tennessee State University, Johnson City, Tennessee, 2013
	New Student Advisor, Northeast State Community College, Blountville, Tennessee, 2014
	Adjunct Instructor, Sociology and Developmental Studies, Northeast State Community College, Blountville, Tennessee, 2012 – Present
	Adjunct Instructor, Sociology, Asheville-Buncombe Technical Community College, Asheville, NC, 2013 - Present
	Adjunct Instructor, Sociology, Tusculum College, Greeneville, Tennessee, 2014 - Present
	Adjunct Instructor, Sociology, Lees-McRae College, Banner Elk, North Carolina, 2015 - Present