SECONDARY TEACHERS’ PERCEPTIONS OF ONLINE LEARNING

By

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A DISSERTATION

Submitted to the faculty of the Graduate School of Creighton University in Partial Fulfillment of the Requirements for the degree of Doctor of Education in the Department of Interdisciplinary Leadership

Omaha, NE

November, 12th, 2015
Abstract

The purpose of this qualitative study was to describe secondary teachers’ perceptions of online learning in Washington. This was done by distributing a survey to three districts in the State of Washington to identify the advantages and challenges of online learning according to participating secondary teachers. In addition, the teachers provided suggestions on tools or strategies necessary to operate successful online programs. The topic is necessary because the majority of the research has been primarily in higher education. This dissertation in practice was an opportunity to give secondary teachers a voice into the continuing growth of online learning at the secondary level versus just online learning at the post-secondary level. The aim of the study was to make recommendations to secondary school leaders on best practices for online learning. By providing both the advantages and challenges according to the participants that took the survey, this study can be starting point for schools in the state of Washington or elsewhere that are considering online programs, along with the suggestions of tools and strategies necessary to operate successful online programs. Results of the study by those secondary teachers that participated emphasized the importance of social interaction that still needs to take place even in an online learning environment, yet, online learning has provided an ideal venue for those students that need flexibility to move at their own pace and are highly motivated. Recommendations include taking small steps when considering an online program, possibly a summer or after school credit recovery program, before a school decides to fully implement an online program.
Dedication

This dissertation is dedicated to my family for always giving me the time to accomplish this incredible goal. This is our accomplishment and I could not have done it without you.
Acknowledgements

Thank you to the members of my dissertation committee, Dr. Peggy Hawkins and Dr. Ron Carlson and their continued support and guidance throughout the process.

Thank you to Dr. Isabel Cherney for her guidance, leadership, and giving me the opportunity to pursue my dream.

Thank you to cohort 13 and future doctors including; Patrick Chadd, Marquis Gatewood, Christina Lapnow, Todd Logan, Maggie Mintkin, Paolo Narciso, and Michelle Miller. I could not have done this without your guys’ support.

Special thanks to my cohort 13 brothers; Todd Logan who has been there since week 1, thanks for the phone calls, text messages, and emails, your support was invaluable throughout the program. Thanks to Patrick Chadd for helping me prepare my proposal and the constant communications throughout the program, your words were always heartfelt and I could not have done this without your support. And last but not least, Marquis Gatewood, we have gone through a lot together during this journey, your prayers and thoughts have always been appreciated. Thank you my brothers for always being there, I look up to each of you!

Thank you for my family for your love and encouragement throughout the process. In addition, thank you to my sister Bridget and Missy for always being there and supporting me in this endeavor. We have been through a lot together and I share this monumental accomplishment with the two of you.
Thank you to my wife Leah, for letting me pursue my dream and giving me the time and space to think, work, and complete this incredible project. We truly have accomplished many things together.

Thank you to my sons Payton and Miles, this is our accomplishment and know that together we did this and thank you for always making me feel that this was an awesome thing that Dad was doing!
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CHAPTER ONE
INTRODUCTION

Background of the problem

Because online learning is relatively new, coming into fruition at the end of the 20th century and beginning of the 21st century, it is challenging to assess its effectiveness in education due to its relative newness. According to the Innovative Institute, the number of high school students taking online courses in the year 2000 was 45,000, as compared to 3 million in 2011 (McLester, 2011). The Innosight Institute has predicted that with the current growth of online courses, by the year 2019 some 50% of all high school classes will be delivered online in some fashion (Horn, 2013). Even as early as 2006, about 20% of all students in higher education were enrolled in at least one online course (Huss, 2007), and 70% of corporate supervisors rated a distance degree “just as valuable” or “more valuable” as a traditional degree, according to the Distance and Education Training Council in 2004 (Huss, 2007). Allen, Seaman, Leaderman, and Jachik (2012) with the Babson Research Group examined the perspectives of faculty and administrators at the post-secondary level and their opinions of online learning. For example, 80% of administrators have more excitement than fear regarding online education, as compared to only 42% of faculty. Allen further stated that 82% of administrators agreed or strongly agreed that online education can be as effective as a traditional face-to-face approach, as compared to 38% of faculty members who felt that way (Allen et al., 2012). Yet, when advising students, 60% of the surveyed faculty reported that they would recommend that their students take an online course (Allen et al., 2012). This type of data illustrates perspectives of those at the post-secondary level
of faculty members and administrators. However, the focus at the secondary level has primarily been on the “intrinsic motivation” of students in independent learning environments and high dropout rates of those students enrolled in online courses (Journell, 2010). But there is little information on secondary teachers’ perceptions of online learning. Therefore, the purpose of this qualitative study is to describe secondary teachers’ perceptions of online learning in Washington.

The need for research in online learning is ongoing, especially in light of the $507 million dollars in 2011 was devoted to online learning and a projected 30% annual growth rate, according to McLester (2011). Two-thirds of 2-year and 4-year institutions will eventually offer online or hybrid/blended learning courses, according to the National Center for Education Statistics (Jones, 2011). This finding then increases the need for further data at both the secondary and post-secondary level to justify such programs. Hence, the research has focused on online education primarily in higher education with studies on the perspectives of faculty members, students, and administrators. At the secondary level, the research focus has been on the “intrinsic motivation” of students in independent learning environments with high dropout rates (Journell, 2010) yet there is little information on secondary teachers’ perceptions of online learning.

At the secondary level, Kindergarten through 12th grade, or K12, the company at the forefront of offering online learning to secondary students, as well as those students in elementary school, hence K-12, distributed a survey nationwide to collect data to assess the use of their online services. K12 found that 1.23 million secondary students fail to graduate with their peers every year (Piciano & Seaman, 2010). Therefore, K12 saw an opportunity to help those students that needed an alternative learning plan to
succeed versus the traditional classroom model. By analyzing survey results, K12 first identified where online programs could be utilized the most at the secondary level, as follows:

1. To meet the needs of specific groups of students.
2. To offer courses that otherwise might not be available.
3. To offer college and advanced-placement courses.
4. To permit a person who has failed a course to take it again.
5. To reduce scheduling conflicts. (Piciano & Seaman, 2010, p. 9)

According to Palloff and Pratt (2003), there is not a “one size fits all approach” (p. 31). It is up to the district to use a wide variety of online strategies to address the needs of their students. Furthermore, in their survey Piciano and Seaman (2010) identified the southern regions of the United States as the pioneers of online programs and found those areas are much more dependent on them. The K12 study also identified barriers that districts face when trying to implement either an online or hybrid program (a combination of both traditional and online learning):

1. Concerns about course quality (58% surveyed)
2. Course development and purchasing costs (58%)
3. Concerns about funding based on student attendance (50%)
4. Concerns with professional development for teachers (Piciano & Seaman, 2010, p. 18)

The decision to implement an alternative program cannot be taken lightly, and many factors have to be taken into consideration. Districts will then research the decision to
implement an online program and follow the advice of McLester (2011) of “starting small,” perhaps with a summer school program or an evening pilot program (p. 53).

This study was conducted by distributing a survey that studied the perspectives of secondary teachers regarding the advantages and challenges posed by online learning, and their perspectives concerning different strategies and tools needed for a successful online program. Three different school districts received the survey, and 40% of teachers in grades 6-12 to whom the survey was distributed completed at least a portion of the 10-question survey. The survey was a mix of both closed- and open-ended questions.

Statement of the Problem

The focus of research relating to online learning varies greatly in term of not just the different levels of learning examined, but also the types of issues and concerns being examined. These concerns vary from the advantages or disadvantages of online learning (Bollinger & Wasilik, 2009; Cook, Annetta, Dickerson, & Minogue, 2011; Kirby, Sharpe, Bourgeois, & Greene, 2010; Sung & Mayer, 2012) to successful strategies for teaching online (Arroyo, 2010; Artino, 2008; Vonderwell & Boboc, 2013) to the use of blended learning or hybrid programs (McLester, 2011; Schulte, 2011; Tucker, 2013). Yet, with all the different areas of focus in online learning, there is very little research at the secondary level, especially when identifying the perspectives of faculty members concerning online practices in 2015. Therefore, with the increase of online learning, there is a need to describe teachers’ perceptions at the secondary level and what further steps can be taken to improve current practices, as is common in education. With the lack of research at the secondary level, secondary teacher’s perceptions should be sought and
used as a way to identify strategies or ways to improve online programs that are currently in place in the state of Washington.

For this research, input was sought from secondary teachers in a larger school district in the state of Washington that included 14 schools, one online school, two alternative high schools, six middle schools, and five high schools. The research also included a small district in north-central Washington where the survey was distributed to just its online secondary teachers, and a small district in southwest Washington that had two middle schools, a high school, and an alternative high school with a credit recovery program.

**Purpose Statement**

The purpose of this case study was to describe secondary teachers’ perceptions of online learning in Washington. The bulk of the presently existing research is concentrated on the perceptions of those involved in higher education, thus providing information on the advantages and challenges posed by online learning at the post-secondary level. However, this study sought to look at online programs from the secondary perspectives and from secondary teachers with varying backgrounds.

**Research Questions**

The question that guided this study was, “What are teachers’ perceptions of online learning at the secondary level?” Other questions emerged such as; what was the importance of social interactions in the learning process, what were some of the advantages and challenges of online learning, and what were some of the requirements for a successful online program. The dissertation was designed as a qualitative study with open-ended questions that were converted to themes with the opinions provided by
secondary teachers regarding the advantages and challenges of online learning. By using open-ended questions, this research revealed a comprehensive view of what secondary teachers believe about online programs and what practices should be present to make successful online programs.

**Method Overview**

This research is composed of a demographic case study that used a mix of open and close-ended questions necessary to gain an understanding in the study of secondary teachers’ perceptions of online learning and giving teachers an opportunity to also share their opinion versus just providing multiple choice type responses. The survey was distributed via email through a district administrator with a link to take the survey. Three different school districts received the survey. The secondary teachers had variable backgrounds, with many having little to no experience teaching online. However, with the variety of secondary teachers many different views were collected to identify the advantages and challenges of online learning, along with their ideas and viewpoints on what can be done to create a successful online program.

**Definition of Terms**

The following list of the terms are necessary to understanding and are used throughout the paper, therefore, this is how the terms will be used.

Asynchronous: Where participants contribute at different times from different locations; for example, the use of discussion boards where students provide input to a given writing prompt and also respond to classmates’ posts.
Blended learning: a formal education program which a student learns, at least in part, through online learning (Horn, 2013), will be used synonymously with hybrid learning.

Higher education: Education beyond the secondary level; especially education provided by a college or university (Merriam Webster, 2015).

Hybrid learning: comprises of some combination of online and face-to-face time (McLester, 2011) and will be used synonymously with blended learning.

Online learning: Is defined as gaining knowledge and skills through synchronous and asynchronous learning applications which are written and communicated, actively supported and managed with the use of Internet technology (Kaymak & Horrum, 2013).

Online learning and e-learning: Used as interchangeable terms both synonymous with the definition of online learning provided above.

Secondary Education: Education beyond the elementary grades; provided by a middle school and/or high school and college preparatory school (Definitions, 2015).

Synchronous: Tools where all participants in the learning environment can meet at the same time, for example, a web conference with the ability to exchange dialog both through a chat box and a microphone.

These definitions are used throughout the study. For example, the core of the study is to identify the perceptions of teachers at the secondary level (grades 6-12); however, a good deal of the existing literature found concerns the post-secondary level, higher education, or the college level. This is important to convey because, although there are some similarities in the two levels, there are key differences in how the online
programs are set up and with respect to student expectations. In addition, often the term e-learning will be used to mean the exact same thing as online learning.

**Delimitations and Limitations**

According to Mauch and Birch (1993), “a limitation is a factor that may or will affect the study in an important way, but is not under the control of the researcher; a delimitation differs, principally, in that it is controlled by the researcher” (p. 103). The delimitations that occurred during this study were, first, the selection of only school districts in the state of Washington, however, it did include two districts in southwest Washington where the researcher lived, and it also included another district in a different part of the state (the north central part). Furthermore, once these particular districts were chosen in order to gain the perspectives of as many teachers as possible, one large district with more than 800 teachers was chosen and with the combined number of teachers in all three districts there were more than 1,000 potential participants that could have received and responded to the study. In order to get responses from a larger number of teachers that taught online, the researcher and district in north central Washington decided to just distribute the survey to its online teachers (75 secondary teachers total) as an agreed upon way between both parties to get more input from those with online teaching experience, as opposed to the other two districts which had limited access to online learning programs. In addition, the survey was emailed to those secondary teachers that teach grades 6 through 12 (710 total), in the three districts. One of the glaring limitations of the study was the overall lack of experience, or lack of knowledge that many teachers had concerning online learning, only 79 out of the 277, or 28.52% surveyed had online teaching experience. On question #10 in the survey, opinions on the strategies and tools
necessary to start a successful online course, only 191 teachers responded out of 282 participants, or 67.7%, and of those 191 that responded, 20 said they were “unsure.” Finally, it was also difficult to compare online programs when they were different in the way they were operated, from a credit recovery program with limited supervision, to a fully online program with both synchronous and asynchronous aspects with a teacher that directs learning.

**Significance of the Study**

By examining the perspectives of secondary teachers’ regarding online learning, this study adds to the limited amount of research that is currently available at this level. At present, the majority of the research is focused on higher education. At the secondary level, there are different dimensions of concerns in comparison to those at the post-secondary level.

This study described the opinions or perceptions provided by those that participated in the survey. Once their responses were obtained, the researcher was able to describe the practices that work in an online program, challenges that exist, and possible tools or strategies that would make a successful online program. Furthermore, the study was geared toward those districts that may be considering the advantages and challenges of e-learning, and are looking to gain a perspective of what needs to be done to create successful online programs. This study functions as a guide to creating an online program, as well as providing some information on the considerations that should be taken into account before deciding upon a fully or partially online program. Therefore, the aim of the study is to make recommendations to secondary school leaders on best practices for online learning.
Summary

This study was focused on gaining the perspectives of teachers that teach at the secondary level (grades 6-12). The majority of research done thus far concerning online programs and practices are focused on higher education. This study delved into the opinions of those teaching at the secondary level, and gathered data concerning what makes a successful online program at this level. By giving those who teach at the secondary level a voice, and by identifying the advantages, challenges, and tools and/or practices to make a successful online program as expressed by these teachers, this study can serve a guide for those looking to make some changes in their district that may include online learning.
CHAPTER TWO
LITERATURE REVIEW

Introduction: Perceptions of Online Learning

The following chapter is devoted to identifying advantages and challenges of online learning according to many differing sources, differences teaching online both at the secondary level and in higher education and the use of online learning programs outside the United States. In addition, a section will be devoted towards identifying practices that are suggested in creating successful online programs, along with the logistics of creating these programs.

Many studies devoted to online learning look at the perceptions of faculty, students, and administration at the post-secondary level regarding e-learning, and to a lesser extent the perspectives of students, faculty, and administration at the secondary level. Through the Babson Research Group, Allen et al. (2012) completed a study identifying the perceptions of administrators and faculty in higher education. A total of 5,100 faculty members responded to the survey invitation and visited the online survey form, and 4,564 of those provided a sufficient number of responses to be included in the study. Three-quarters of the respondents were full-time faculty members, and just over one-quarter taught online. They were evenly split between male and female (more male administrators responded than female administrators; and more female faculty members than male responded), and over one-third had been teaching for 20 years or more. Some of the essential data collected included the finding that 80% of administrators looked upon online learning with more excitement than fear. On the other hand, faculty members’ perceptions were far more conservative, with only 42% perceiving online
learning with more excitement than fear. Nearly 66% of faculty members believed that learning outcomes for an online course are inferior or somewhat inferior to those of a face-to-face (FTF) course. About 39% of faculty members with some online teaching viewed online learning as inferior or somewhat inferior to face-to-face (FTF) learning, as compared to 75% of those faculty members with no online teaching experience.

Noticeable differences then between administration and faculty existed while only 38% of faculty either agreed or strongly agreed that online learning can be as effective as in-person instruction, the corresponding number among administrators was 83%. A divide between faculty and administration prevailed, with far more support for online learning at the administrative level, and more practical concerns being held by the faculty or those that teach the courses.

Research in higher education suggests that many instructors have had adverse initial reactions to online learning, particularly if they felt uncomfortable with technology, and that teaching online involves more instructional time than teaching FTF teaching (Journell, 2010). According to Allen and Seaman (2007), many institutions indicated that some of the barriers to the adoption of online courses included the lack of student discipline, the lack of faculty acceptance, and the high costs associated with online development and delivery. Furthermore, Sung and Mayer (2012) described another struggle as the instructor’s need for “social presence” or the need of the faculty member to be perceived as “real,” a hurdle not faced in traditional classroom settings. Another major challenge for faculty members was identifying ways to make students feel connected and able to succeed in a new learning environment (Moore, 2014). DiRamio and Wolverton (2006) found that the dynamics of online studies resulted in students
feeling isolated, and that isolation may act as a barrier to learning. According to Jones (2011), critics fear that the lack of FTF contact with the instructor and other students creates a remoteness that inhibits learning. The means to overcome the two primary challenges of e-learning, then, seems to be in the hands of the faculty, in their ability to accept and utilize the new online learning venue and technology, and their ability to create a “sense of community” with the limited technologies that are available.

**Challenges of Online Learning**

One of the most common challenges faced by those in online programs is the issue with technology. Previous studies have documented technical difficulties with the Learning Management Systems (LMS) as one of the main challenges that online learning faces (Bollinger & Wasilik, 2009; Kirby et al., 2010; Thickstun, 2014). An example of problems with technology are the issues experienced in South Africa when officials were combining students from University of Western Cape (UWC) and students from Stellenbosch University (SUN). An unexpected power crisis occurred in Cape Town, and during the first month of the project two total blackouts were recorded and consistent daily blackouts were common. These power problems damaged the actual e-learning software (Rohleder, Bozalek, Caolissen, Liebowitz, & Swartz, 2008). Furthermore, it became apparent as the study progressed that the middle-class students from SUN had access to computers and internet connections at home and at the university, but for the UWC students, many of whom came from disadvantaged backgrounds, the situation was very different and the access to technology was limited to a computer lab on campus (Rohleder et al., 2008). In other parts of Africa such as Cape Verde, technology was limited, as was the access to the Internet. When the network did not operate smoothly,
communications were replaced by conventional telephone and postal services for exchanging documents, and some learning even took place over the radio (Ramos, Taju, & Canuto, 2011). Hellman (2003) noted that Information Communications Technology, or ICT, are still very much in its infancy in the developing world, and that radio and print continue to dominate as media of communication in places were Internet access is limited or non-existent. Although these are extreme cases, they do illustrate that the student and teacher are dependent upon technology and its supporting infrastructure. Furthermore, Africa is not the only continent with limited or no access to technologies, as the following countries have fewer than 10 Internet users per 100 people: Armenia (5 out of 100), Iraq (1 out of 100), Kazakhstan (3 out of 100), Tajikistan (6 out of 100), and Uzbekistan (7 out of 100) (Machado & Demiray, 2012). This limitation stems from the inadequate technologies and/or lack of infrastructure to support an online program, along with lack of governmental support to provide funds for such ventures.

Other challenges that impede progress online learning, according to Thickstun (2014), have been the instructors need to adapt their teaching style to go from a teacher-centered approach to a more student-centered approach. In other words, for teachers to provide instruction while giving students the ability to become more active in the learning process with limited guidance from instructors. Additionally, an educational dilemma is many students are often generationally “digital natives” (they grew up with technology) and many faculty are often “digital immigrants” (learning a new language of communication) (Nutter, 2012). Hence, many instructors have been trained one way to instruct and have to adapt or adopt a new set of skills, with a main component of that new skill set being the use of a technology that changes frequently.
From the students’ perspective, Kirby et al. (2010) and Bolliger and Wasilik (2009) pointed out that often students have low motivation or lack the self-discipline to succeed in the online world, and will often not finish a course that they start. Furthermore, Hachey, Wladis, and Conway (2012) found that students who have not successfully completed a course have very low overall success rates and fail to register for other online courses. Therefore, developing teaching strategies that make online courses more student-centered while balancing the use of synchronous (Web conferencing utilizing the chance to interact) with asynchronous (student interaction through discussion threads) techniques. These are ways to balance opportunities for personal reflection with academic writing practice (Fuller, Lowder, & Bachenheimer, 2014), while at the same time keeping students engaged. This student-centered approach is further supported by work done by Borup, West, and Graham (2012) in which they surveyed 26 of 31 of those that responded to the survey and 25 of 27 students interviewed believed that audio feedback was more effective than text because the auditory cues gave them a feeling that they were more engaged. Additionally students believed they were more likely to remember content and provided a perception that their instructors genuinely cared about their learning. It was also a good way to attach a name to a face, and thus making the experience more genuine and personal.

Other challenges were not being able to see their students often led to problems with plagiarism and cheating on tests and/or quizzes, and according to Funk (2004) the issue with cheating has been rampant. Along with those students who cheated, not turning in work also became a serious problem (Funk, 2004) leading to higher failure rates for online students. This issue of cheating is more common amongst those students
who did not have any experience learning online. According to Hachey et al. (2012), those students who have not successfully completed an online course have very low overall success rates. At the secondary level, an article in the Minneapolis Star-Tribune (Lemagie, 2011) compared the dropout rates in Minnesota in the 2009-2010 academic year and found that 25% of 12th graders studying full-time in online schools dropped out. This was compared to only 3% of 12th graders that dropped out of traditional school classrooms. According to Mitchell and Hubbard (2011b) Colorado’s online schools produced three times more dropouts than graduates. At Ohio’s Virtual Academy, only 30% of the school’s 9,000 students graduated on time compared to 78% of public school students (Maine Education Association, 2012). In Pennsylvania, the Agora Cyber Charter started in 2005 and has reported nearly 25% of the school’s 8,700 students left the school in 2010-2011 (Maine Education Association, 2012). In addition to the dropout rates, another discovery by a former principal of Insight School in Colorado is that once funds were received for students they were systematically dropped them from the attendance before state exams were to be taken, avoiding any negative publicity and yet receiving financing for the students (Mitchell & Hubbard, 2011a). In higher education, the trend for dropout rates has followed suit: e-learning courses documented approximately 25-40% drop out rates as compared to 10-20% in on-campus courses (Carter, 1996; Parker, 2003; Xenos, 2004). Furthermore, Chyung, Winiecki, and Fenner (1998) examined factors that contributed to the high dropout rates of adults and discovered that the students’ satisfaction during the first and second week was the main factor in predicting dropout from e-learning courses.
Mitchell and Hubbard’s (2011a) article *Investigation Finds Lax Oversight of Online Education*, investigated the logistics and practices of financing online schools and their results were as follows. When students began the year enrolled in an online school and then returned to a traditional brick-and-mortar school, the funding did not always follow them, therefore, the brick-and-mortar school had to find alternative ways to finance those students. Furthermore, the Colorado Board of Education documented the path of 10,500 students who were enrolled in the 10 largest online schools in the beginning of the 2008-2009 academic year and the results were as follows (Hubbard & Mitchell, 2011):

- Half of the online students left within a year and they were often further behind academically.
- Online schools produced three times as many dropouts as graduates.
- Millions of dollars are going to virtual schools for students who no longer attend online classes.
- The churn of students in and out of online schools was putting pressure on brick-and-mortar schools, which must find money in their budgets to educate students who come from online schools. (p. 2)

Randy DeHoff spent 12 years on the State Board of Education before becoming Goal Academy’s (a virtual school in Colorado) Director of Strategic Planning. In the Hubbard and Mitchell (2011) article *Online K-12 Schools Failing Students but Keeping Tax Dollars*, DeHoff agreed that “One of the things the online schools needed to do a better job of was recruiting and in the enrollment phase trying to give students a real clear idea of what online programs are about and what responsibilities they have to make it
work” (p. 4). In the Fresno Unified School District this concept was researched in the autumn of 2010 when they developed an approach to online learning via trial and error. They first allowed students to do most of their work from home, which resulted in only 23% finishing their courses (Frey, 2011). Therefore, understanding that many students did not have the self-discipline or perseverance to succeed on their own in an online environment, the decision was made to open up online courses to those students with not only good grades but good attendance. In keeping with this, the district opened up computer labs on campus staffed by teachers to accommodate students taking online courses. The result the following spring was that 43% of all students completed their courses, up 20% from the fall (Frey, 2011).

Advantages of Online Learning

Mary Starry, an Assistant Professor at the College of Pharmacy at University of Iowa perceived the current model of education as being historically mired by lecture and “brain dump” methodology (Anderson, 2012). John McNutt, a professor of public policy and administration at the University of Delaware, believed “from an economic standpoint that business cannot continue as usual. Without online education, only the wealthy will receive an education, the traditional model is just too expensive” (Anderson, 2012, p. 18). Furthermore, other alternatives to help students graduate from high school are needed, according to Susan Patrick, president and Chief Executive Officer (CEO) of the International Association of K-12 Online Learning (iNACOL). Nearly one-third of high school students have failed to graduate with their diplomas, and in the nation’s 50 largest cities only 53 percent of high school students graduate on time (Dessoff, 2009). Therefore, according to Patrick (2010), “We cannot accept these barriers as immovable
forces (p. 104),” referring to the status quo that exists in public education. With the increased number of new online programs throughout the country, various aspects of online learning have been identified as making inroads in revolutionizing education.

According to Harvey, Greer, Basham, and Hu (2014), the most notable advantage of online learning was the flexibility it allowed students to create their own schedules and work from any location without the obligation of attending class on a campus. Another advantage not always considered, but obviously a pressure at the secondary level, is the absence of bias, judgment, or students being critical of one’s appearance (Donuhue, Fox, & Torrence, 2007). This can also be a venue where some students who experienced anxiety may feel less anxious and thus are more likely to express themselves more clearly without the fear of being shunned (Harvey et al., 2014). The on-line setting may give even the shyest person who might never speak in the regular classroom more of an opportunity to share in a discussion thread or synchronous session (Clark-Ibanez & Scott, 2008). Furthermore, the online program can allow a geographically isolated student the opportunity to continue their academic endeavors without being in a brick-and-mortar or traditional school (Cook et al., 2011). For those who have struggled with feeling isolated, synchronous sessions were one of the solutions where students and teacher met to exchange dialog, and in which student concerns and questions were addressed immediately (Cook et al., 2011).

Harvey et al. (2014) also noted that online learning is becoming more attractive to a certain type of student who prefers learning in a solitary manner and is not motivated by the social interaction. This may explain the trends in the types of students that are attracted to virtual learning: (a) Adults: For those with a busy work schedules who
wanted to complete their first degree or obtain an advanced degree possibly geared
towards career advancement. This group continues to be a robust clientele for online
learning; (b) International Students: There has been a significant increase in the number
of international students studying outside their native countries; and (c) Military
Personnel: Pursuing all levels of education after their active duty and even during their
active duty (Dew, 2012).

Not only are many of these groups not motivated by social interaction, but the
course flexibility has allowed these groups of people to complete coursework while
working and maintaining busy home schedules. According to Clark-Ibanez and Scott
(2008), a full-time working student, explained that she prefers online classes “because I
can do my class work after I get home from work, in my pajamas, while eating dinner. I
can turn in the assignment as late as midnight which is great for my schedule” (p. 35).
Bollinger and Wasilik (2009) also noted that the flexible pace of learning allows students
the freedom to learn, which also is an attraction and advantage of online learning.
Furthermore, being able to reach any student that has Internet access and the guarantee
that students can continue learning regardless of whether or where they live (Bollinger &
Wasilik, 2009) is also an advantage and time saver for those who learn online.

In an interview with the CEO of iNACOL, Susan Patrick (2010) stated, “There is
growing evidence that blended and online learning is more effective at increasing student
performance and achievement than typical face-to-face models, so states and districts
need to invest in high-quality online and blended learning” (p. 108). In other words, the
advantages of both online learning and FTF learning could be a solution to drawing on
the best of both worlds while accommodating all students, even those who are struggling
in the traditional classroom or quite simply dropout. Therefore, the hybrid model may be something to consider, especially as the constant financial stress faced by schools leads more districts to regard online education as a possible way to save money (Journell, 2012).

The Hybrid or Blended Learning Approach

Over the last two decades there has been a transition from the typical FTF model of teaching to utilizing technology to offer education online that allows learning without having to leave the comfort of one’s own home. Instead of adopting a full-time online program, many institutions opted to combine FTF instruction with cutting-edge online curriculum (Schulte, 2011). According to Tucker (2013), when adopting any type of online learning program it is better to “think big and start small. Aspiring to big goals is laudable, but when first attempting to weave tradition and technology into practical, durable education fabric, one must take small steps” (p. 57). Yet, with the influx of online learning at the post-secondary level, Jones (2011) highlighted some basic questions: (a) can learners in an online environment receive an education equivalent to that of the traditional face-to-face classroom; (b) does the quality of education differ due to a course being online; and (c) is “online time” equivalent to “seat time?” (p. 69).

Even as early as 2000, relevant questions surfaced concerning online learning. For example, Zare (2000) pointed out that it should not be a question of either online or FTF learning being better. Instead, the right question was “How do you best combine both approaches” FTF and online learning (p. 1106)? Although the Babson study found faculty generally had a negative view of online learning, it should be noted that 60% of
faculty members recommended online courses to a students or advisees (Allen et al., 2012).

Northern Illinois instituted an Internet Based Masters in Educational Technology (iMet) program in 2000 and collected data on the program through 2009. The program was an 18-24 month program that met FTF 25% of the time and online 75% of the time. Of the 243 students who entered the program between 2000 and 2009, 93% or 226 students completed all coursework without interruption (Cowan, 2012). In addition, 75% of those who entered the program with a goal of seeking new employment were successful at finding new positions (Cowan, 2012). The following strategies that made the program successful:

(a) Strategy 1: "Establish a community—one way of doing this is the creation of cohorts” (p. 14);

(b) Strategy 2: “There was an advantage in having so many diverse professional backgrounds for people to draw from” (p. 15);

(c) Strategy 3: “Recognize the individual nature of teaching and provide a process of community development” (p. 15); and

(d) Strategy 4: “Utilize multiple levels of expertise including classmates and alumni” (p. 17).

At the secondary level, Picciano and Seaman (2007) distributed a survey that was patterned after a similar instrument used by the Sloan Consortium to conduct national surveys of chief academic officers in American colleges and universities. Some 366 out
of a total of 16,000 school districts contacted (or 2%) responded to the survey or had district representative(s) respond. The school districts represented 3,632 schools, 2 million students, and 67,000 FTE teachers from every region (New England, Middle Atlantic, Southeast, Midwest, North Central, Southwest, Mountain, and West Coast).

The major research questions that guided the study were:

1. What is the nature and extent of online learning in K-12 schools in the United States?
2. What is the perceived importance of online and blended learning for K-12 programs?
3. What are the issues and barriers that impede the development of online and blended learning in K-12 schools
4. Who are the major providers of online and blended learning courses to K-12 schools

(p. 6)?

According to the study, district respondents believed the following areas were perceived the most important part of online and blended learning:

1. Offering courses not otherwise available at school
2. Meeting specific needs of students
3. Offering advanced placement or college level courses
4. Reducing scheduling conflicts for students
5. Permitting students who failed a course to take it again. (p. 9)
Next, respondents indicated the following as the major barriers and issues of online and blended learning:

1. Concerns about course quality
2. Course development and/or purchasing costs
3. Concerns about students receiving funding based on student attendance for online and/or blended/hybrid courses
4. The need for secondary teacher training

However, even with both the concerns and barriers to the online and/or blended learning, Table 1 shows the grade levels of students taking courses as categorized by fully online and blended/hybrid courses. In Table 1, not surprisingly, the data show that much higher percentages of students are enrolled in online courses in the upper levels with the majority at the high school level.

Table 1.

Regional Online Programs: by grade and total number of students at each level for those student populations/districts that participated in the survey

<table>
<thead>
<tr>
<th></th>
<th>Fully Online</th>
<th>Blended/Hybrid</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades K-5</td>
<td>2,733 or 16%</td>
<td>538 or 5%</td>
<td>3,271 or 12%</td>
</tr>
<tr>
<td>Grades 6-8</td>
<td>1,793 or 10%</td>
<td>3,980 or 36%</td>
<td>5,773 or 20%</td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>12,625 or 73%</td>
<td>6,519 or 59%</td>
<td>19,144 or 67%</td>
</tr>
<tr>
<td>Other</td>
<td>198 or 1%</td>
<td>56 or 1%</td>
<td>254 or 1%</td>
</tr>
<tr>
<td>Total</td>
<td>17,349 or 100%</td>
<td>11,093 or 100%</td>
<td>28,442 or 100%</td>
</tr>
</tbody>
</table>

As presented in Table 1, fully online programs and hybrid programs are most notably used in grades 9-12 at the secondary level, with limited but increasing use in both
grades K-5 and grades 6-8. According to Picciano and Seaman (2007) they estimated that approximately 700,000 students for the entire population of 48,000,000 public school students were enrolled in online or blended courses. For those students that were fully online 73% were grades 9-12, 59% were in hybrid programs, and overall 67% of all students that participated in this survey were grades 9-12, as opposed to 32% between grades K-8. Regardless of the reasons for these trends, it is apparent that the need for online learning according to the 366 school districts surveyed is becoming more of a viable option to educate all of their students and Table 1 shows that not only are students at the high school level enrolled in online courses, but those between grade Kindergarten and 8th grade are also increasing.

Some examples of specific blended/hybrid secondary programs that serve the needs of some students using a combination of online and FTF instruction are as follows. First, Washington Academy of Arts and Technology located in Spokane, Washington had a significant population of Hutterite students that traditionally attend school until the 8th grade so they can help on the farm after 8th grade. However, with the use of online programs, these students have been able to attend courses while helping out on the farm, even after 8th grade. Participants also found that the technology and the reporting needed for farming is developed by the students in taking the online courses. This training gave students a new skill level that helped in their Hutterite communities (McLester, 2011).

Furthermore, according to McLester (2011), the Boulder Universal Online School District were losing 150 or more students annually to online vendors not affiliated with any district. The solution to the problem came in terms of developing strategies and/or programs that serviced more of the students who fell behind and were not on course to
graduate, instead of just concentrating on those students that were on track but just needed additional course or two that was not offered by the district, or neighboring districts.

Another example of assisting a certain student population was the “Dig-It” program serving underprivileged students throughout New York City who up to that point had really no reason to learn or to look forward to attending school (Nolan, Preston, & Finkelstein, 2012). The program was devised to give students the flexibility of a blended program utilizing technology and FTF interactions, therefore, it became more student-centered and self-regulated (Nolan et al., 2012). While staff monitored student progress, the students were given the opportunity to explore different careers and colleges, engage in personal finance courses, and were exposed to arts and culture throughout the city.

In Australia, e-learning or online learning were seen as a way to enable all citizens to partake in learning, thus giving them the flexibility to do so at their convenience (Misko, Choi, Hong & Lee, 2005). In addition, Cook et al. (2011) further emphasized that online programs offered flexibility for working teachers and a chance for geographically isolated students to obtain courses they otherwise could not attend. Bollinger and Wasilik (2009) concurred that online learning provided a flexible pace for students to follow in the learning process. Furthermore, Song, Singleton, Hill and Koh (2004) reported that students liked the convenience of online courses where they did not have to travel to campus and they were given the ability to complete assignments and tasks at any time, something the students felt was a strong point of online learning. In other fields such as nursing, online learning/training helped with staffing by providing a
system that can be accessed 24/7 and that can be completed far more quickly than a traditional lecture or FTF training (Benson, 2004). Flexibility, then, was perceived as one of the primary advantages of using an online learning tool. Yet, as Palloff and Pratt (2003) suggested, “There is not a one-size-fits-all approach” (p.31). Institutions have to take small steps and modify programs to meet their needs as they progress.

Schulte (2011) and Toth, Foulger, and Amrien-Beardsley (2008) suggested an acceptable balance of both FTF and online cutting-edge curriculum or a blended/hybrid program. According to Moore (2014) the use of blended programs addresses the challenge of assisting students in making a connection in the new environment with the traditional FTF interaction. A good example of this is the Carpe Diem Charter schools operating in many parts of the country including Ohio, Indiana, Arizona, and Texas. Students attend classes from Monday through Thursday, and are required to attend on Friday if they fall behind (Schulte, 2011). These charter schools using a hybrid approach are amongst the highest performing schools in their respective states. Fletcher (2014) posited the following nine strategies as crucial in the creation of a successful hybrid program:

1. Teachers need to access to student learning goals through collaboration. This may be done with a coach or instructor on a Friday to assess goals and progress with the flexibility to make changes at any time.

2. Hybrid schools must set ground rules with online vendors necessary to accommodate their needs with the ability to make changes along the way.
3. Schools must put learning needs ahead of technology: often times with an online course the focus tends to be on the technology as opposed to the curriculum and learning goals or requirements.

4. Arrange adequate tech support: One of the most important aspects of the school and vendor agreement is the tech support that the vendor can offer 24/7 and whether it is worth the cost. Otherwise, other alternatives have to be sought.

5. The hybrid model is also an ideal tool for professional development or the ability to gather staff both FTF and online means faculty does not have to meet at a physical location.

6. The hybrid program turns teachers into curators or content specialists where they are able to spend more time concentrating on content that has quite often been supplied to them through a vendor (therefore, reducing the time spent writing curriculum).

7. In a hybrid program, the freed-up time allows a teacher to prepare in advance for higher quality face time, possibly in small groups.

8. Many programs, for example the Orcas Island School District in Washington state, assigns students as mentors to provide support for fellow students, along with a homeroom teacher who are more directly involved in the day-to-day monitoring of student progress.

9. Lets teachers experiment collaboratively through professional development time. (pp. 1-5)
According to Hofmann and Miner (2008), the need for blended learning is based on the notion that people learn differently, learning outcomes are achieved differently, and one approach cannot possibly fit all needs. Therefore, more programs are being created mixing the use of online and FTF programs that embrace the challenge of meeting a wide spectrum of student needs.

**Differences between Secondary and Post-Secondary Online Programs**

According to Journell (2010), the majority of research at the secondary school level has focused on the “intrinsic motivation” needed to succeed in an independent learning environment, particularly in light of the high online learning dropout rates. However, data on secondary dropout rates from online programs are difficult to find as most data pertains to dropout rates at the post-secondary level. For example, Frankola (2001) reported that there were no concrete national statistics, but a report in the Chronicle of Higher Education found that institutions saw dropout rates that ranged from 20 to 50% for distance learners. In addition, administrators concurred that dropout rates are 10 to 20 percentage points higher for online learners versus their face-to-face counterparts. According to Picciano and Seaman (2010) Florida Virtual School has an “any time, any place, any path, any pace” program that emphasizes the multiple levels of personalization possible in virtual schools (p. 7). These changes allow students to proceed at their own pace without being concerned if they are keeping up with their peers (Picciano & Seaman, 2010). Furthermore, faced with the complexity of the problem of students dropping out, in his address to the joint session of the United States Congress (February, 2009) Barrack Obama stated:
Dropping out of high school is no longer an option. It’s not just quitting on yourself, it’s quitting on your country; and this country needs and values the talents of every American. So, the first issue initially retaining those students at the secondary level is a priority and with multiple venues for students to choose from the problems with dropout rates could be reduced. (Picciano & Seaman, 2010, p. 8)

Another focus of research into online programs at the secondary level is the vast use of hybrid or blended learning programs that combine the use of both online and FTF meetings. As emphasized earlier, Jones (2011) believed the following three questions were of utmost concern for a school considering a full-blown online program:

1. Can online learners in an online environment receive an education equivalent to that of a traditional FTF classroom?

2. Does the quality of education differ because the course is online?

3. In other words, is “online time” equivalent to “seat time?” (p. 69)

These questions are justified and further supported by Journell (2010) who conducted a case study collecting input from both staff member and students concerning online courses that were offered to students in a Southwestern Virginia School district that used online courses to reach students for a variety of reasons (initially used for reaching homebound students, but, was eventually used to offer courses district-wide). Mr. Harding, a high school teacher taught the online summer U.S. History course that comprised of 13 students primarily sophomores going into their junior year, and one student that was repeating the course after failing it in the junior year. Mr. Harding “found that the online course paled in comparison to classroom instruction, it lacked both
the social and emotional aspects of a traditional classroom” (p. 74). When the students were asked why they decided to take US History online the majority of the students’ responses centered on the perception that e-learning offered a quicker and easier approach to learning than what they would have received in the classroom. As one student stated, “You get through (content) faster. You do a lot more in less time” (p. 75). However, for most of the students that took the course most confessed that they struggled in the course. The primary reason was a lack of self-motivation rather than difficulty with the academic requirements (p. 76).

This is even further magnified by a principal’s concern of potential teachers that take classes just online to get their teaching credentials (Huss, 2007), “I don’t really see how a computer could promote the affective side of a teacher candidate, at least not to any reasonable extent” (p. 26). According to Huss (2007), teacher affect needs to be witnessed in order to assess whether the teacher has composure, empathy, enthusiasm, fairness, humor, and initiative, to name a few traits that can be recognized in a classroom. Thus, the hybrid or blended learning model as covered in the previous section is an attempt to unite both models as an alternative to the traditional classroom that is not working for many students.

Given the concerns posed by online learning at the secondary level, the National Education Association (NEA) surveyed secondary faculty members and 75% responded positively concerning online learning (Bollinger & Wasilik, 2009). Hartman, Dziuban, and Moskal (2000) surveyed secondary school faculty members who taught online and found that 83.4% of those surveyed were satisfied teaching online and that 93.6% were willing to continue to teach online. Furthermore, the Michigan Department of Education
has taken the unprecedented step mandating an e-learning requirement for all high school students as a way of preparing their students for the growing demand for online instruction in higher education and business (Michigan Department of Education, 2006). Furthermore, according to Allen et al. (2012), only 42% of faculty members surveyed felt more excitement than fear when considering the growth of online learning, as compared to 80% administrators who felt more excitement than fear. In addition, only 38% of faculty members felt online education was as effective as FTF learning, and 80% of faculty members expressed great concerns over the quality of instruction offered by for-profit online institutions (Allen et al., 2012). Comparing those teachers at the secondary level that express primarily positive feedback concerning online learning to those faculty members in higher education who are more skeptical of online learning, the data then supports that there are differing views of perceptions by those that teach at both levels, which can further affect student learning depending on instructor overall support of online programs.

Another major difference identified in the literature is the strategic approach for online learners at both the secondary and post-secondary level, a difference primarily due to the age of the learners involved. Table 2 shows Lepi’s (2014) tips on teaching online at the secondary level and Jones’ (2011) tips on teaching online at the post-secondary level:

Table 2.

<table>
<thead>
<tr>
<th>Secondary Level Tips</th>
<th>Post-Secondary Tips</th>
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<tbody>
<tr>
<td>Treat the student as a person</td>
<td>Encourage contact between student and faculty</td>
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For secondary teachers the tips are focused more towards developing relationships and respecting the student, in essence creating a community where students can feel safe and learning can take place. Alternatively, one cannot assume that many of the strategies at the secondary level could be practiced at the post-secondary side as common sense ways to treat students. Yet, on the post-secondary side of the chart the focus was very narrow on student learning, engagement, and appreciation for different ways of learning.

**Misconceptions and Considerations when Starting an Online Program**

According to Journell (2012), many districts embrace the online learning model as a way to create an *anywhere, anytime learning environment*. Furthermore, with rising
gas prices and a crumbling economy, more districts have begun to consider online learning as a way to save money and as a viable alternative method with which to educate students. Some states such as Michigan have even gone as far as to require students to take at least one online course (Journell, 2012). Concerns arise when considering online education to FTF instruction and they are equally effective at addressing student educational needs. The response to the concerns are much more complicated, and without the necessary preparation for both teachers and students, the online model can result in failure. An example of this is found in the case study by Journell (2010), Mr. Harding, an online summer school teacher, stated that “students take online courses because their whole goal, is to put in the minimal amount of effort as possible” (p. 74). In addition, the teacher felt the students were only interested in learning just enough to pass. Therefore, with this type of attitude from both the students and the faculty member (the “self-fulfilling prophecy”), the online program degenerated into a digital diploma mill, which skeptics such as Noble were warning about when online learning was in its earliest stages (Noble, 2001). Thus, school districts and others will need to avoid these types of stereotypes and retrain teachers to understand the realities, methods, and strategies that make online learning a successful educational program.

Other misconceptions include that because a teacher is a superior teacher in a classroom, that the transition into becoming an online teacher is a smooth one. However, being a superior classroom teacher or being adept at technology does not automatically translate into effective online pedagogy (Journell, 2012). Online instruction requires a different skill set and disposition (Garrison & Anderson, 2003; Journell, 2008; Quinlan, 2011). Obviously, teachers must gain knowledge and develop strategies needed to make
that transition to become successful teaching online versus FTF. Online learning differs from the traditional classroom in that student learning is geared primarily towards the use of technology. The traditional FTF learning utilizes many strategies, but primarily through social interactions and active participation. According to Clark-Ibanez and Scott (2008), teaching online courses requires using a student-centered constructivist approach where the instructor facilitates students’ learning. In addition, with limited access to relevant professional development, many districts become limited thus they do not have the expertise or resources to educate teachers once they decide to incorporate an online program. According to Davis and Roblyer (2005), if online K-12 education continues to evolve, university teacher education programs will need to include courses in online pedagogy as part of their standard curricula.

The same type of preparation also must be taken to prepare prospective online students in order for them to be successful online learners. Journell (2012) stated students should get instruction on the habits needed for successful online learning, as well as examples of how to communicate with classmates online and teachers on a regular basis. Furthermore, it has been shown that requiring students to attend at least one FTF meeting with the teacher and their classmates before starting the online course leads to a greater sense of community and more academic success amongst students (Haythornthwaite, Kazmer, Robbins, & Shoemaker, 2004). Bozarth, Chapman, and LaMonica (2004) concluded in their study, that upon reviewing their requests and discussing the needs with clients, the project team decided that a training course was indeed needed for both faculty and students before they took the course. Therefore,
preparation before an online course, let alone an entire online program, requires a significant amount of consideration.

In an interview, Susan Patrick, the president and chief executive officer (CEO) of the International Association for K-12 Online Learning (iNACOL), stated her organization has a mission to ensure that all students have access to a world-class education and quality online learning opportunities that prepare them for a lifetime of success (Cavanaugh, 2010). Additionally, Patrick emphasized that with “economic hardships, there is a triumvirate of diminished resources, increased demands, and the inability to continue to do things with the same results” (p. 110).

First, iNACOL suggested that those who consider starting an online program must run a market analysis aimed at better understanding the purpose and target audience. Without an audience to serve, the program will have difficulties right from the beginning. Then, once a target audience is determined, iNACOL (May 7, 2010) suggested going full forward with marketing the program to attract that target audience. The following questions should be addressed:

1. What is your target geographic region, and how many students that fit your target profile are in that region?
2. Are there other online or brick-and-mortar programs that cover your geographic area that serve similar student populations or offer similar courses? How many students are in those programs? Is your goal to lure students away from other programs or to identify new groups of students to serve?
3. Given the total number of students and the competition, what portion of those students can be expected to take courses in your online learning program? How many semester classes will each student enroll in?

4. How do you expect the numbers and characteristics of students to change over the next few months or years?

5. How will you distinguish your program from the competition?

6. How do other programs market to the same populations of students, and how effective are their marketing strategies? What marketing strategies will you use?

7. How will you track the impact of your marketing strategies to ensure effectiveness?

These questions need to be asked for an online school to not only open, but to continue to operate in the long run. According to Watson and Gemin (2009), when a school or district starts an online program they have to do the following:

- Recruit, hire, and manage teachers
- Develop proper student support systems
- Manage technology
- Evaluate programs to determine if they are successful (p. 3)

Because the technology piece requires a great deal of manpower, deciding on the best technologies to be used that will be most beneficial and user-friendly is crucial. Moreover, Information Technology, or IT support available through a carrier to address technical issues that students and staff can experience any time of the day or night is a critical question and/or concern if the program will continue to exist at a high level. According to iNACOL (April 14, 2015: curriculum), many vendors offer pre-made
curricula, however, the online school must determine if the curriculum it is contemplating satisfies both national and state standards. When a district decides to create its own curriculum, courses can take anywhere from 12-18 months to create, and it requires a wide range of expertise in designing the program so that it abides by national, state, and district standards.

Next, funding of an online program becomes imperative, with state virtual schools funded primarily two ways: the fixed appropriation and the formula-based funding methods. The fixed appropriation is the most common funding method when creating a program. This fixed method is when the funds are collected from the state and devoted to infrastructure and program development costs (iNACOL, April 14, 2015: State Virtual Schools). In other words, the fixed appropriation method gets the program started, but limits the enrollment the program can have, hence, the virtual school has less of a chance to grow, but more of a chance to get started. The alternative approach is formula-based funding that is similar to a traditional school in that funding is determined by the number of students served. It should also be noted that many online programs do receive grants and donations, although when researching into this realm of financing it becomes more cumbersome to track funds. In addition, it is much easier to obtain funding for specific projects as opposed to general program operations (iNACOL, May 7, 2010: Funding). Therefore, due to the time commitment, many grants are not even applied for.

At the same time financing decisions take place, policy-making decisions have to be made. According to iNACOL (June 5, 2010), a policy can be made at the federal, state, or district level. The important thing is to not get stuck on the wording of what a policy is, but to adapt the guidance to whatever organizational level and specific labels
apply to a particular situation. Online practices are guided by alternative learning education (ALE) laws that can be quite different from one state to another. For example, Nebraska’s alternative learning laws are directed toward meeting the needs of students that have been expelled according to Rule 17 (Title 92 NAC, Chapter 17) under the state’s education laws. However, in the state of Washington the online learning laws are much more detailed and the focus is not on one particular group of online student, such as those that are expelled as in the state of Nebraska, but all those seeking an education online. Policies in Washington focus on “direct personal contacts” and how they are made between student and certified teacher (WAC 392-121-182 3 d), the need for “synchronous digital instructional contact” on a weekly basis (WAC 392-121-182, 3 l), the importance of “total weekly time or contacts made” focusing more on the number of contacts made between certified teacher and student (WAC 392-121-182, 3 m) and, most importantly, the “monthly contacts” made at the beginning of each month when progress reports are distributed electronically and interventions are made for those students with any grade in any class lower than 60% (WAC 392-121-182 3 f). The successful monthly contacts that are made, both satisfactory and unsatisfactory, followed by an intervention, are key in determining school financing.

According to iNACOL (July 6, 2010), policymaking is guided by the pertinent questions that each online program must consider:

- Can a student be part-time in your program and part-time in another?
- Are there going to be full-time and part-time students?
- Which entity—the online learning program, the resident district, or some other entity—will award the credit(s) earned by the student?
● If a student participates in multiple programs, who maintains the master transcript and issues the diploma?

● How is attendance credited and how are attendance rates calculated for students who are participating in online courses?

● How does funding flow from the student’s district or the state to your program?

● How will procedures for tracking attendance, reporting student counts, and accessing funding vary for out-of-state students?

At the same time policies are being decided upon, a learning management system (LMS) must be selected that will be user-friendly, satisfy district/state reporting needs, has a student information system (SIS) that would supply all the necessary information needed for reports, and also have web-conferencing capabilities necessary to conduct weekly class connect or web conference sessions. iNACOL (2015: Learning management system) suggested the following features should be included in the LMS system:

- Ability to organize course content into units or chapters, and lessons or individual content items within a unit or chapter. Individual content items might consist of text, graphics, multi-media, animations, and interactive tools.

- Ability to create accounts with different roles and privileges (e.g., student, teacher, mentor, parent, administrator, etc.)

- Ability for teachers to post announcements

- Threaded discussion boards or forums for asynchronous discussions

- Assessment system to allow for online quizzes and exams

- Drop-box capability for turning in assignments
• Online grade book
• Integrated email system and/or interface to an external email system
• Wikis, blogs, and other Web 2.0 tools
• Functionality to support group and project work
• Functionality to individualize learning by providing customized learning paths (often based on the demonstration of mastery of specific learning objectives) for individuals or groups of students.

Many organizations choose the convenience of going with a vendor that will provide the curriculum, LMS, and IT support, however, such a choice does come with steep upfront costs. Table 3 illustrates the decision to either write or prepare own curriculum versus deciding to go with a vendor that can supply an LMS with curriculum and support (iNACOL, 2010: Pro’s & cons).

Table 3.

Advantages of Building a Program/Curriculum or Purchasing it from a vendor

<table>
<thead>
<tr>
<th>Advantages of each</th>
<th>Building Your Own</th>
<th>Buying from a Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial cost</td>
<td>Multiple license models can allow for low initial costs</td>
<td></td>
</tr>
<tr>
<td>Ongoing cost</td>
<td>Ongoing costs limited to course maintenance and updating</td>
<td></td>
</tr>
<tr>
<td>Content &amp; design flexibility</td>
<td>School has total flexibility over content, instructional design</td>
<td>Some licenses allow for course customization</td>
</tr>
<tr>
<td>Decision making</td>
<td>Decisions about most details are already made</td>
<td></td>
</tr>
<tr>
<td>Timeline</td>
<td>A large number of courses are already available</td>
<td></td>
</tr>
</tbody>
</table>
Skill development | Develops district skills in content writing, online instructional design, technology and other skills
Risk | Lower risk due to initial costs, and the ability to start with just a few enrollments, and ability to switch course vendors if necessary
Curriculum uniqueness | Any imaginable course can be developed
Copyright ownership | District/school owns the course, can resell it and market it as a unique offering
Professional development | Professional development is focused on the instruction and the nuances of the program

Table 4 shows the disadvantages of building curriculum as compared to the disadvantages of deciding to use a vendor (iNACOL, 2010: Pros & cons).

Table 4.

Disadvantages of Building a Program/Curriculum or Purchasing it from a Vendor

<table>
<thead>
<tr>
<th></th>
<th>Building</th>
<th>Buying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial cost</td>
<td>Large upfront investment</td>
<td>Ongoing costs, depending on the license can be as much as starting costs</td>
</tr>
<tr>
<td>Ongoing cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content &amp; design flexibility</td>
<td>Ongoing course maintenance &amp; revisions required.</td>
<td>Limited ability for the school to customize content or design</td>
</tr>
<tr>
<td>High cost of multi-media presentation needs to be thoughtfully designed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision making</td>
<td>Every component needs to be thoughtfully designed and experts will be needed to design them</td>
<td></td>
</tr>
<tr>
<td>Timeline</td>
<td>Roughly 12 to 18 months to develop</td>
<td></td>
</tr>
<tr>
<td>Skill development</td>
<td>Does not generally develop writing or design skills</td>
<td></td>
</tr>
<tr>
<td>Risk</td>
<td>Higher risk in that the large initial investment does not guarantee that a successful course will be produced</td>
<td></td>
</tr>
<tr>
<td>Curriculum uniqueness</td>
<td>Electives are limited and courses are developed for nationwide consumption vs. individual state(s).</td>
<td></td>
</tr>
<tr>
<td>Copyright ownership</td>
<td>District does not have the copyright</td>
<td></td>
</tr>
<tr>
<td>Professional development</td>
<td>Requires wide-ranging professional development on content, design, technology, and instruction</td>
<td></td>
</tr>
</tbody>
</table>

According to Walpole (2008), the primary reasons many organizations decide to go with a vendor is the ease of getting started, better documentation, accountability, the willingness of vendors to stand by their product against software flaws, and the “ease of use” of the program. Therefore, although the costs are more significant than the open-source option, by hiring technology support along with a vendor this can offset the costs and time in creating and building one’s own LMS (which can take as long as 12-18
The last part of creating an online program is identifying those who can work as educators or teachers in the virtual world. The role of teacher becomes one of guiding individualized learning, communication, assessing grading and promoting, and developing the online course content and structure (iNACOL, 2015: Role of online teacher). According to iNACOL (2015: Teacher preparation and recruitment & hiring) an organization will then have to develop policies and a philosophy on hiring teachers, taking the following things into consideration:

1. If you are responsible for creating and running a district or school program, will you be utilizing teachers that are already part of your district/school or will you be hiring new teachers?
2. Will you have full-time teachers, part-time teachers, and/or adjunct faculty? It is certainly possible to mix-and-match these categories.
3. Will your teachers be located in a physical building or will they work from home?
4. What requirements must a teacher meet to be considered for an online teaching position?
5. What training, if any, will you provide during the recruitment process, but prior to making a hiring decision? If you provide training, will there be any charge for this professional development?

Once these policies are decided upon, the school or program then must decide upon continuous professional development opportunities or strategies to keep teachers up
to date with current “cutting-edge” practices. It can be a challenge to find an organization that can assist with professional development practices, therefore vendors provide professional development to go along with the technical support. However, if the district decides to build the LMS, then the question becomes who will train teachers.

**Online Learning outside the United States**

The main hurdle faced in Canada’s educational system was reaching all students because many were located in geographically isolated regions. This prompted 8 out of 10 provinces to adopt some form of province-wide online learning (Kirby et al., 2010). At the turn of the century, rural and remote schools were faced with two alternatives: (a) have teachers teach in fields where they have no training, or (b) not offer courses in some subject areas (Kirby et al., 2010). Hence, with the vast number of students living in rural areas in Canada, more than one-third of all secondary schools began to offer online courses in 2003-2004 to meet the needs of those students.

In Mexico, the experiences and challenges associated with online learning are quite different. Online learning serves to diversify educational opportunities in an ongoing search for the best way to utilize distance education (Castaneda, 2005). However, online learning is perceived as a hodgepodge of learning and teaching strategies, resources, and media from all stages of education that serves people who do not have access to traditional education in Mexico (Castaneda, 2005). What has emerged is a resistance to foreign countries that use their technologies to gain access to the educational system in Mexico, and the strategies and systems from other countries do not always meet the needs and desires of the educational system in Mexico. This contributes to the challenges faced in Mexico’s educational system; dependence on imported projects
or systems, lack of standardization practices, a bureaucracy that leads to traditional school-bound formats, traditionalism, a lack of adequate policies, and isolation (Castaneda, 2005). Mexico has experienced some of the same issues common among online learning users. However, the situation is further complicated by a sense of not being in control of the current system and not having policies and assessments in place to monitor and utilize online education to its fullest potential at the secondary level. Current online practices or programs served those with limited access to education and that is the extent of it. In higher education, according to Becera, Almendra, and Flores (2012), there is an incomplete understanding of the various selections of distance learning in Mexico, insufficient documentation and validation of distance education trends and interests, and a lack of clarity on the social impact of distance education in the country. In sum, there is a need in Mexico for improved understanding of where distance education is heading and the extent to which current initiatives align with strategic national priorities, the direction of new initiatives, and how advanced technology will affect the field (Aretio, Ruiz, Quintinal, Miriam, & Mary, 2009).

In Africa, most governmental bodies do recognize that lifelong learning is a key strategic asset in global competition (Ramos, Taiu, & Canuto, 2011) and perceive online learning as another way to educate those who may not have had the option to be educated in the past. Cape Verde’s Ministry of Education, with support from the Calouste Gulbenkian Foundation, a Portuguese foundation that supports innovation, ideas, and partnerships across cultural, educational, and social interests, was invited to provide a customized version of its master’s degree in multimedia in education for staff from Cape Verdean Higher Education Institute (Ramos et al., 2011). This was done in alliance with
the University of Aveiro (UA), a Portuguese Public University of some 13,000 students.

The interaction between UA and the students provided the needed social interaction that many miss with online learning programs. In addition, a computer lab was equipped with 10 desktop computers, printer, scanner, digital equipment, wifi hotspot, and a dedicated asymmetric digital subscriber line (ADSL) or Internet connection (Ramos et al., 2011).

According to Ramos et al. (2011), the program benefitted many. However, numerous challenges emerged between the West African and the Portuguese culture. One problem was linguistic differences or the use of different terms that may have very different meanings to the respective cultures. The next problems were the different approaches and attitudes concerning ethical issues in online learning, especially pertaining to downloading and reusing existing materials (Ramos et al., 2011).

Furthermore, the learners’ had a heavy reliance on receiving prompt feedback on assignments so the students could make adjustments, common among online learners.

Mozambique collaborated with University of Eduardo Mondlane (UEM) which allied itself with the Center for Distance Education (CEND) in Mozambique. The first challenge faced in incorporating a business management online pilot program was gaining acceptance, support, and expertise from the UEM economics faculty members (Ramos et al., 2011). This included establishing common goals and a curriculum, and developing skills required to teach online, in addition to adopting the necessary technology for the program. The major problem, though, was that the economics faculty met the proposal with resistance and were very reluctant to rethink, rewrite, or rework practices to meet the needs of online learners (Ramos et al., 2011).
The lessons learned in both Cape Verde and Mozambique are numerous. First, according to Hellman (2003), regardless of years of development and advocacy, information and communication technology (ICT) were still very much in its infancy in Africa. However, probably the most important lesson learned when combining cultures and/or change, according to Ramos et al. (2011), was that it takes time to familiarize staff with new approaches—time for explaining, time for discussing, time for experiencing, and time for achieving true understanding of the roles to be undertaken in essentially different teaching and learning environments.

In South Africa, an interdisciplinary, interinstitutional collaborative online learning project was undertaken between the social work department at the University of Western Cape (UWC) and the psychology department and Centre for Teaching and Learning at Stellenbach University (SUN). The primary goal of this project was to cross boundaries such as disciplines, race and language, and offer an opportunity for learning particularly when boundaries diverge and are in tension, thus exposing participants to alternative ways of thinking (Wenger, 2000). In this situation, though, many unique problems emerged that created numerous technical challenges. Most notably, two total blackouts occurred, and frequent daily partial blackouts eventually damaged the e-learning software, which led to the system being offline for a week while repairs were made. However, even with the technical issues, 95% of the students said they would repeat the collaboration course with students from another university (Rohleder, et al., 2008), and 80% of those students were still positive about repeated use of a mixture of FTF workshops with e-learning interaction (Rohleder et al., 2008). In addition, other feedback was given about the positive aspects of communication between people,
particularly between student and facilitators; as one student noted, “Even when the system was down we were able to communicate without consultation time, this was seen as a positive impact” (p. 101). Students also liked turning in paperless assignments and identified this as a cost-saving advantage of taking classes online (Rohleder et al., 2008). The last benefit of online learning according to many of the students was the interaction in asynchronous venues where they enjoyed peer review, both as a way to reflect and a way to learn. Although many positives were mentioned from this online experience, many challenges continued to exist that were class-based. For example, there was an unequal access to computers between the students from UWC and SUN. Many of the students from SUN came from middle-class backgrounds, and had access to computers and Internet connections at home, as well as at the university (Rohleder et al., 2008). For the UWC students, many of whom came from disadvantaged backgrounds, the situation was much different and many did not have access to a computer or Internet at home (Rohleder et al., 2008). The UWC students also experienced issues on campus with crowded and noisy computer labs. In conclusion, according to Rohleder et al. (2008), 17% of the students that participated in the study responded negatively to the use of mixed FTF and e-learning, stated they would rely on the FTF workshops rather than the e-learning due to the difficulties they faced.

In Kenya, e-learning readiness in the public schools were a primary focus. In January of 2006, the Kenyan government promulgated a National Information and Communications Technology (NICT) policy to improve the livelihoods of Kenyans by ensuring the availability of accessible, reliable, and affordable ICT services (Farrell, 2007). Furthermore, the Ministry of Education allocated 980 million Kenyan Shillings
for their ICT infrastructure development under an Economic Stimulus Package (ESP) (Minster of Education, 2011). This earmarked funds for computers, projectors, local area networks, Internet connectivity, and training of teachers (Ouma, Awuor, & Kyambo, 2013). Before the implementation, Olatokun and Opesade (2008) emphasized that the parameters of accessing e-readiness for institutions needed to include: infrastructural availability, access to infrastructure, manpower availability, policy, and regulatory framework. With all this in place, more elementary questions emerged, primarily the question of how teachers were to change their pedagogical approaches if they themselves have not been provided the sufficient and appropriate training on how to integrate ICT and the new teaching technologies into their instructional programs (Eslaminejad, Masood, & Ngah, 2009). The researchers evaluated the readiness of the teachers by having the teachers rate their own computer skills. The study used an instrument consisting of 11 questions, with the answers being in the form of a Likert-type scale (see Table 5).

Table 5.

<table>
<thead>
<tr>
<th>Means</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2.6</td>
<td>Not ready, needs a lot of work</td>
</tr>
<tr>
<td>2.6-3.4</td>
<td>Not ready needs some work</td>
</tr>
<tr>
<td>3.4-4.2</td>
<td>Ready but needs a few improvements</td>
</tr>
<tr>
<td>4.2-5</td>
<td>Ready to go ahead</td>
</tr>
</tbody>
</table>
Out of the 11 questions, the lowest mean response was 3.49 to the question “I can save text contents off Web pages to a disk;” in other words they were ready, but did need some improvements. Mean scores ranged from 3.49 (I can save text contents off Web pages to a disk) to 4.51 (quite simply, I can switch a computer on) for all teachers. The teachers felt ready or that they could be ready with a few improvements needed to start the program. As far as students were concerned 130 out of the 175 surveyed, or 76.5%, had no computer experience, while only 25 or 14.7% had 1-2 years of computer experience, and 15 or 8.8% had 3 or more years of computer experience (Ouma et al., 2013). However, when surveyed, the students strongly agreed ($M = 4.858$) that they believed it was important for them to learn how to use computers. Most teachers agreed ($M = 4.069$) that the low computer literacy level among the students was a barrier to the implementation of e-learning. Even though priorities have been set forth in Kenya to put the necessary programs and strategies in place, e-learning success will take time based upon both student and faculty experiences, and the ability to adapt and revise programs and technologies to suit the education and technological needs in Kenya.

Shifting to the Middle East, as early as 1998 an expert pointed out the need for using ICT in Israel’s formal education system, which was growing rapidly. The recommendation was to enhance science literacy in schools through technology (Yair, 2010). According to Guri-Rosenblit (1999), Israel wanted its system to function based on the classical model of Open University of the United Kingdom (UK). With the aim of providing higher education to all regardless of age, race, place of occupation, or gender, the key was for all citizens to realize their academic potential. Therefore, when Israel contemplated adopting Information Technology (IT) model or sector of education, the
desire was to become an international leader in the usage of technologies by providing higher quality and more effective learning experience to its faculty and to the varied and geographically dispersed student population (Yair, 2010). It required the creation of two separate IT centers; first, a strong computer center, with a strong physical infrastructure (computers, servers, bandwidth, and so on) and the needed software. Second a special center for evaluating the usage of IT, and specifically learning technologies, in its distance education practices (Yair, 2010). In 1997 the Open University Learning Management System (LMS) introduced broadband Internet synchronous sessions over live video stream on the web. However, the majority of students still preferred the physical classroom. By the end of 2007, a dilemma emerged. The video conferences became synchronous, symmetric, and interactive because program officials thought this would involve students more in the process. However, because of the flexibility that students had, many skipped the live sessions and preferred viewing the recorded lectures. According to Yair (2010), this was a great advantage to learners, but at the same time it presented difficulties to an instructor who would teach a lesson to an “empty classroom,” albeit a virtual classroom. The instructors perceived this as entailing preparation to present, but with no audience that was present for the lesson. By spring 2007, the Open University of Israel (OUI) cancelled the video classrooms and transmitted all video lessons solely over the internet as recordings instead of live sessions to accommodate students.

In Europe, both Greece and Bulgaria increased their citizens’ access to the Internet, which eventually helped provide access to the new information technologies to create opportunities for all their citizens to become lifelong learners (LLL). In Greece
with a literacy rate of 96% (Sidiropoulos, Bousiou, & Mavrommati, 2010), they showed a lack of interest and overall resistance to online learning, with only 6% of the student population participating in synchronous education initiatives (among a number of Greek universities). In addition, despite the growing interest among students and faculty in distance and blended learning techniques, the shortfalls came from the lack of effort by both students and faculty alike (Sidiropoulos et al., 2010). The most common delivery of online curricula consisted of uploaded presentations, with no provisions made for student interaction. Bulgaria—which became a full member of the EU in January of 2007 (Dureva-Tuparova, Tuparov, Doneva, & Staevsky, 2010)—understood the significance and importance of the role that e-learning can play in the delivery of information to its people. For adults, Bulgaria has created a Vocational Education and Training (VET) program guided by the LLL concept with the aim of enhancing adults’ employability (Dureva-Tuparova et al., 2010). Furthermore, at the university level programs use e-learning technologies for both full-time and part-time students. In spite of the high level of attention given to e-learning in Bulgaria, and the improved technologies, the level of practical implementation of e-learning in different levels and forms of education is not good. According to Dureva-Tuparova et al. (2010), some of the reasons for the slow development of e-learning in education are:

- Lack of clearly stipulated government policy and legislation in regards to e-learning in degree courses and programs;
- Lack of quality standards for distance education/e-learning;
- Lack of knowledge and skills for e-learning course and materials development;
Lack of satisfactory financial compensation for the design and development of e-learning materials in state schools, universities and colleges;

- The poor reputation of e-learning among prospective employers. (p. 92)

So, even with the devotion to using the e-learning as a tool to create lifelong learners, Bulgaria is in the process of utilizing distance education to serve all of its citizens, and access and quality are inefficient (Dureva-Tuparova et al., 2010). In addition, e-learning is hampered by an infrastructure that is not well-developed, a shortage of relevant skills (from all parties involved), literacy, and the lack of funds in both the private and the public sectors (Dureva-Tuparova et al., 2010). Greece, on the other hand, has devoted funds to Greek labs to research the possibilities of e-learning technologies and efforts have been made to expand its research and development efforts. It is reasonable to support the contention that e-learning and web-based learning development in Greece is a high-level priority for government policy (Sidiropoulus et al., 2010).

One of the most extensive studies on international online learning programs compared e-learning in Australia and Korea. In 2001, the Australian government contributed $34.1 million to developing, over 5 years, interactive online curricula for schools (Misko et al., 2005), especially for those children in remote areas. Additionally, the Australian government made it a priority to develop the necessary infrastructure for the “critical mass of people to be able to be active online,” necessary to benefit the emerging information economy (p. 21). In 1993-94 computer usage among Australian businesses was at 49%; this number increased to 84% in 2001, with access to the Internet increasing from 29% in 1997-98 to 69% in 2000-2001 (ABS, 2002). Furthermore,
Navarro and Shoemaker (2000) in another study, found that students mainly chose online learning for the convenience and because they wanted to learn at their own pace. Other students enjoyed the online programs because they wanted to have more control over where, when, and how they study. However, when students were asked which methodology they preferred, both studies found that students preferred face-to-face teaching (Misko et al., 2005). For many students, and particularly those living in areas where the telecommunication infrastructure was inadequate, on-line learning could be slow and frustrating due to limited bandwidth (Palmieri & Cashion, 2002). In such conditions, many students preferred FTF interaction over online learning (Kilpatrick & Bound, 2004). In addition, Maki and Maki (2002) pointed out other relevant concerns for those students that do not have high literacy or comprehension levels and often struggle with the online venue that is geared towards those that are self-motivated and have basic reading and comprehension skills. Brennan (2003) further supported these concerns about students who lack self-discipline and motivation, both of which are needed to succeed in a generally self-paced online learning scenario.

The Open Training and Education Network (OTEN) part of the Western Sydney Institute is the specialist distance education provider for Technical and Further Education NSW (Misko et al., 2005). It provided training for 38,000 students in more than 250 courses with a student-teacher ratio on average of 200:1. The delivery approach was self-paced learning, accommodating students’ schedule needs, and providing them flexibility. To combat the feeling of isolation the program instituted a blended learning approach that added richness to distance learning by encouraging the much needed peer interactions crucial to the learning process (Misko et al., 2005). Although there are issues with slow
connections, costs of the program, and difficulties with access to materials at times; the reality is that with any implementation of an e-learning program concerns about professional development, support strategies, and effective IT support will be ongoing concerns (Misko et al., 2005). Furthermore, students will quite often spend hours in front of a computer without moving, and they need to do this in an ergonomically safe manner (Misko et al., 2005). The need to take breaks and stretch regularly is becoming more important for those that work at a desk for long periods.

Another aspect of the Australian e-learning program is the use of this type of training in the corporate world. Qantas Airlines, the largest Australian domestic airline and an internationally recognized carrier, redesigned its IT networks to provide online training. According to Misko et al. (2005), up to 80% of the 37,000 employees have registered and utilized online learning to complete compliance requirements, technical training, or interpersonal skills. In addition, there are currently 130 courses offered on a wide variety of topics, with 10% of those requiring some practical work off-line. This program allowed employees at the company free and easy access to relevant training and it provided training to a large number of people in a short time frame. However, employees must have the motivation required to complete training sessions and at times students may not be engaged in content that is either engaging or pertinent. E-learning is also used in the banking industry in Australia, and it greatly assists trainers by providing another venue through which to educate employees, as opposed to the constant need for FTF training. Furthermore, e-learning is a way to reach all employees in a short time frame and provide important information having to do with new legislation, thus also saving on travelling costs. Misko et al. (2005) pointed out that on-line learning enables
the company to improve its image as a progressive bank and use this in its promotional campaigns.

Although upfront costs are not unique to organizations or countries that want to develop and produce e-learning materials, the costs were more of a problem for South Korea because materials had to be translated into Korean while Australia had the benefit of purchasing materials from other English-speaking countries. However, South Korea’s development of e-learning is strongly related to the rapid growth of its internationally recognized ICT industry, according to Misko et al. (2005), along with a strong push from the government to also infuse ICT into the public and private sectors. In addition, South Korea boasts a literacy rate of 97.6%, which is very favorable for the uptake of e-learning (Misko et al., 2005). The South Korean government even went further and provided an extra-curricular computer course in 2000-2001, for 500,000 low-income primary and secondary school students. Some 50,000 of the students that received good grades were rewarded with a free personal computer (PC) with a free 5-year Internet subscription (Misko et al., 2005). Other factors that support the use of online programs in Korea, according to Misko et al., (2005) include as early as 2002 more than 26.5 million South Koreans owned a PC, roughly 56% of the total population, and that by 2004, some 80% of all Korean households had direct access to the Internet.

In the field of education in South Korea, in March of 2000, nine online universities were established as per the Lifelong Education Act passed in August of 1999, and by April of 2001 more than 40% of all universities had implemented e-learning in one form or another (Misko et al., 2005). On the business side, in June 2003 the Korean Federation of E-learning was created, primarily composed of businesses specializing in e-
learning, corporate training and education centers, and corporate departments in charge of
e-learning (Misko et al., 2005). Training institutes began to train government officials
and 12 of 37 government training institutes operate e-learning courses, and most of them
have implemented e-learning courses as part of the traditional classroom curriculum
(Miskos et al., 2005). Like Australia, South Korea has also experienced obstacles to e-
learning, primarily in the form of the feelings of alienation that students felt, with learners
of diverse ages. In addition, many have limited technological savvy and struggle with the
e-learning venue. Learners also struggled at times with the need for immediate feedback
that is not always present with e-learning (Misko et al., 2005). One of the solutions,
though, has been the implementation of various blended learning approaches that
combine online learning with FTF. According to Misko et al. (2005), suggestions to
further improve Korean e-learning included the following:

- While the demand for online learning continues to increase in Korea, the
  training of e-learning professionals is increasingly becoming a critical issue.
- The importance of the role of the instructor in e-learning can never be over-
  emphasized.
- Provisions needed to make customized learning programs and services to
  enable learners to meet their needs continues to be an issue.
- Finally, government policies concerning e-learning need to be tuned more
  systematically to further help improve e-learning for employees, not just in terms
  of quantity, but also in terms of quality. (pp. 131-132)

Drawing from the experiences of each of the countries presented in these studies,
different and unique problems emerged ranging from an overall lack of access to the
Internet to a lack of acceptance of the e-learning model as opposed to traditional classroom delivery. According to Castenada (2005), the premises that underlie online education are (a) greater and more equitable coverage (b) self-reliance and independent learning, and (c) flexibility in adapting to a participant’s living conditions. This also applies to corporations in some of these countries. For example, Qantas Airlines in Australia that utilizes online training to educate a large number of employees in a short time period (Misko et al., 2005) and Samsung Life Insurance (Inc.) in Korea uses the Samsung Data System (SDS) e-campus managed by five experts with five servers which enables 1,000 learners to be connected at the same time. That means that 8,000 learners a month and 100,000 a year are able to access the system (Misko et al., 2005). So, according to Misko et al. (2005), it is true that e-learning is gradually expanding as a means of education and training, making it more convenient to reach greater numbers in a shorter period of time without travelling considerations.

**Successful Strategies Used to Teach Online**

Although there is no one formula for being a successful online instructor, there is plenty of literature with suggestions on best practices in distance learning. Conceicao (2007) characterized the successful online instructor as an instructional designer, a facilitator, and a catalyst. An instructional designer is one who is able to design, organize, administer, and present content, and make adjustments to existing content when changes need to be made. A facilitator is one who moves from the center of instruction as seen in the FTF classroom where it is instructor-centered, to the sidelines where the instructor becomes more of a coach guiding the online process. The instructor also becomes a catalyst or instigator of conversation, whether it is in an asynchronous
discussion by providing writing prompts and providing feedback to further discussions, or in synchronous sessions by consistently encouraging dialog amongst attendees. McLester (2011) stated that 85% of what makes a good online instructor is personality and someone who is helpful and pushes students. However, Lepi (2014) provided a more comprehensive list of 15 tips as covered earlier in Table 2.

The most notable concern for an online instructor, though, is building a “sense of community” when not in a classroom environment with consistent FTF contact. According to Rovai (2002), in order to build a sense of community in the virtual world, spirit, trust, interaction, common expectations, social presence, social equality, and group activities are all necessary. The idea of spirit can often be achieved at the post-secondary level through the creation of cohorts where students begin to feel membership in a community, and a feeling of cohesion often develops between learners (Rovai, 2002). This can also be done at the secondary level with consistent participation in asynchronous discussions and a weekly synchronous session that provides a venue for students to interact on a regular basis. Trust develops over time when students begin to feel connections with those in their class or cohort. However, this can take time to develop, and instructors must provide opportunities to rely on others and develop confidence in them (Moorman, Zaltman, & Deshpande, 1993). Next, Rovai (2002) suggested learner interaction is an essential element of, but not the full solution to, the development of a sense of community. Overall, the instructor also needs to set common expectations, this being done when the learning reflects the commitment to a common educational purpose and epitomizes learner attitudes concerning the quality of learning (Rovai, 2002). A unifying concept emerging from situated learning research is “communities of practice.”
or the concept that learning takes place through the sharing of purposeful, patterned activity (Lave & Wenger, 1991). According to Cutler (1995), the instructor must “create a sense of social presence by creating interactions that are essential for feeling that others are there” (p. 18). In other words, asynchronous discussions are one way to not only create dialog, but also to foster social interaction among class members.

Providing feedback on assignment via YouTube or VoiceThread or other video technologies is another way students are able to see instructors’ faces. Additionally, having the opportunity to utilize synchronous sessions where students and instructors meet to engage in weekly sessions focused on current assignments, communication takes place both through chat boxes and microphones, if enabled. Social equality can become a sensitive topic, but it is one that deserves attention. Social equality occurs when some group members become authoritative and dominate discussions, whether in a discussion thread or synchronous session. As in any venue, regardless if it is a virtual classroom or FTF, instructors must provide opportunities for all students to have a voice. Another ideal way to create a sense of community is group projects. Group Projects can become complicated across time zones, and the inability or lack of technology that enables students to meet to complete projects can make such a thing impossible. However, when accomplished, this can be one of the best tools for those in distance education to get to know their classmates.

**Summary**

In summary there are advantages and challenges to online learning. The flexibility it provides (Bollinger & Wasilik, 2009; Cook et al., 2011; Harvey, Greer, Basham, & Hu,
2014), the appeal of online courses to nontraditional students (Bollinger & Wasilik, 2009), and the ability to use video communications that helps to personalize and make the course more like a FTF course (Borup et al., 2012). However, many challenges are still prevalent such as issues with technology (Bollinger & Wasilik, 2009; Thickstun, 2014), high costs associated with online delivery (Bollinger & Wasilik, 2009; Misko et al., 2005), feelings of isolation (Bollinger & Wasilik, 2009; Diramio & Wolverton, 2006; Kirby et al., 2010; Thickstun, 2014), and the struggle to create a “sense of community” (Cowan, 2012) or establishing a “social presence” (Sung & Mayer, 2012) by the instructor. With both the advantages and disadvantages of online learning, Zare (2000) emphasized that the wrong question is being asked: “it is not an either or question,” but “how do you best combine the best of both approaches, FTF and online?” (p. 1106).

Many believe that starting small—perhaps a summer school or even an evening pilot program—could ease the transition (McLester, 2011). Paloff and Pratt (2003) pointed out that a “one-size-fits-all approach” does not work when considering an online program.

In closing, with the continuous efforts worldwide in technology, countries throughout the world continue to adopt legislation and strengthen their infrastructure in order to accommodate both online learning and training in the corporate world. With economies becoming more reliant on technology, it makes sense that schools would adopt online programs to accommodate learners and create lifelong learners who could possibly benefit corporations in the future as IT personnel, trainers, or facilitators. At the least, online learning gives each country the opportunity to reach all students with a mix of technology and the FTF approach that in turn will educate all individuals and give each person a chance to be a productive citizen.
CHAPTER THREE

METHODOLOGY

Introduction

The purpose of this qualitative case study was to describe secondary teachers’ perceptions of online learning in three different school districts in the state of Washington; one large district with an online school and credit recovery options for students, another small district with the survey distributed only to their online teachers, and a small district with credit recovery options for their students. The qualitative approach was chosen to gain the most amount of information in a short period of time, which allowed the researcher the ability to develop a comprehensive picture of the problem under study. A large amount of the information can be gathered necessary to provide a portrayal of online learning and what strategies or tools could be utilized to create and sustain a successful online program according to secondary teachers in the state of Washington. The study used a combination of both closed-ended and open-ended questions. The closed-ended questions were used to create a demographic profile of those secondary teachers that took the survey. These questions included the gender of the teachers that participated, their experience in education in years, the subject(s) taught, their online teaching experience, and grade level(s) taught (see Appendix A). The second part of the survey was comprised of the two “open-ended” questions that focused first on the advantages of online learning and then on the challenges of the online programs. The last question asked secondary teachers to provide their opinions on the state of online programs, and what tools and strategies are needed to make such programs successful.
The web site used to create the survey was Survey Monkey® and to further exploit its potential, numerous surveys were piloted in a survey methods course, therefore providing a number of surveys that were then analyzed and ten questions were decided upon from the pool to distribute to secondary teachers. In addition, the researcher navigated the Survey Monkey® system to become familiar with the system. According to Hannah (2012), Survey Monkey® research has shown that the survey should take 5 minutes or less to complete. “While 6 – 10 minutes is acceptable, significant abandonment rates occur after 11 minutes” (p. 2). With this in mind, the first eight questions were geared towards gaining secondary teacher demographic information approximately taking two minutes to complete. The majority of the time the survey took to complete was devoted to gaining secondary teachers opinions on the advantages and challenges of online learning, along with tools and strategies that are necessary to make a successful online program.

Once the survey structure and questions were decided upon, three different types of teachers were surveyed: those that teach in a traditional classroom (with no online teaching experience), those that teach online only, and those with experience both online and in the traditional classroom setting. By instituting the open ended format, combined with the demographic information of those that participated in the survey, the qualitative information then gave those secondary school faculty members a voice for sharing their ideas and perceptions concerning online learning. The demographic portion of the survey was automatically tabulated through the password-protected Survey Monkey® system that converted the demographic responses, from the first eight questions, the other two questions were qualitative responses. Next charts and graphs providing responder data
by simply converting the data into demographic information based on secondary teachers responses. The qualitative data was read by the researcher using each response to the open-ended question chronologically as they were received and realizing that not all respondents attempted to answer both of the open-ended qualitative questions. Once the survey was closed, reading each survey and developing segments that were done over a period of 17 days, from May 11th to May 28th. This process included reading through each response based on the participants’ responses to both the advantages and disadvantages, and using the process of open coding or identifying general categories or themes. Then, once all responses were read, axial coding and selective coding took place to further reduce the number of categories based on the similarities of the original categories that were identified through the first reading of responses. Once the themes were created, the aim of the study shifted to making recommendations to secondary school leaders on best practices for online learning. According to Creswell (2014), the key behind qualitative research is learning about a problem or issue from participants and addressing the research to obtain that information. In other words, it is a way to use the information provided to the researcher by the participants and to develop possible solutions to the problem at hand. Furthermore, Strauss and Corbin (1990) offered the following five reasons for conducting qualitative research:

1. The conviction of the researcher based on research experience
2. The nature of the research problem
3. To uncover and understand what lies behind any phenomenon about which little is yet known
4. To gain novel and fresh slants on things about which quite a bit is already known

5. To give intricate details of phenomena that are quite difficult to convey with quantitative methods. (p. 19)

Next, the Creighton University Institutional Review Board (IRB) considered the background, purpose, and methodology used in the study, especially if there were any materials being distributed to students, instead of faculty. The majority of the IRB application was the survey being used (Appendix A), and two districts’ approval letter (Appendix B). Other documents were submitted and exempt status was granted by the International Review Board (Appendix C). In addition, further documentation needed to be included that provided documentation from the Collaborative Institute Training Initiative (CITI Program) that training was completed into conducting Social Behavioral research (Appendix D). Other optional documentation was included when applying for IRB approval including the emails that were sent to both district administrators and secondary teachers (Appendices E & F).

**Research Question(s)/Research Hypotheses**

The research questions/hypotheses were dedicated to obtaining the perceptions of secondary teachers that teach at the secondary level (grades 6-12) on how they view the current state of online learning; both the advantages, and challenges, as well as what strategies or tools are used to make a successful online learning program. Figure 1 illustrates the process of how the aim was created in making recommendations based on the data from for those considering incorporating an online program into their district. This was done by collecting responses of the advantages of online learning, challenges,
and the strategies and tools according to secondary teachers that were necessary to create a successful online program.

![Diagram showing advantages and challenges of online learning and strategies being sought to make a successful online program.]

**Figure 1**

*Advantages and challenges of online learning and the model of the strategies being sought to make a successful online program*

The strategy was to look at practices that were successful, and also to brainstorm the challenges, as was the case with question 9 of the survey that focused on the advantages and challenges of online learning. Question 10 then addressed successful strategies and tools needed to operate a successful online program at the secondary level. It should be mentioned again that the majority of the research in online learning and teaching is conducted at the post-secondary level, primarily through the opinions of those in higher education: students, faculty, and administration. Therefore, this was an opportunity to collect the perceptions and opinions in the state of Washington of numerous secondary teachers concerning online learning.
Method Rationale

The research design was created as a qualitative study that accumulated information based on secondary teachers’ responses from three different school districts with and without online programs in the state of Washington. The survey created a profile of those secondary teachers who decided to take the survey. In order to create the participant profile, questions centered on gender of the participant, the subjects they taught, if they had online teaching experience or not, and their opinion on whether “a student that graduates from an online program is as prepared as a student that graduates from a traditional school.” The open-ended questions’ primary goal was to identify the advantages or practices that make an online program successful to teachers at the secondary level, while at the same time having them identify shortcomings or challenges that students face in online learning. Once the surveys were completed, Survey Monkey® created a bar graph on the first eight questions based on responses, then provided the raw data below the bar graph based on the number of those that responded to the question. For example, Figure 2 shows the demographic data based on the responses to question 1 on gender from 280 of those that responded to the question, and two that skipped the question.

Q1 Please enter your gender.
Answered: 280  Skipped: 2

<table>
<thead>
<tr>
<th>Gender</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>33.57%</td>
</tr>
<tr>
<td>Female</td>
<td>66.43%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

Each of the first eight questions were converted into bar graphs and raw data as the survey progressed until the last day when the data were finalized as it appears in Table 6. Hence, the demographic data were automatically created once the survey was completed.

Teachers were given the opportunity to answer questions that both created the participant’s demographic profile and provided input and/or their opinion(s) on online
learning. The profile provided the researcher an understanding of who was replying to
the survey and the background of those providing ideas or input concerning online
learning in the qualitative portion of the survey. In the qualitative part of the survey, or
the part with the open-ended questions, participants were given the opportunity to
provide input and their own perceptions of the evolution of online learning not only in
their district or school, but the overall trend of how online learning is currently being
used nationwide. Shifting back to the goal of the study, this was the ideal opportunity to
give those at the secondary school level input or a voice as far as online learning is
concerned. In addition, even those who may not teach online had the opportunity to offer
up differing strategies that could be used to improve current practices. The survey
allowed all participants in three school districts in the state of Washington to be heard.
Furthermore, the majority of the existing literature focused on the concerns and
perceptions of those in higher education (Allen et al., 2012; Anderson, 2012; Bollinger &
Wasilik, 2009; Cowan, 2012; Journell, 2010; Fuller, Lowder, & Bachenheimer, 2014;
Horspool & Lange, 2012; Koehler, Zellner, & Roseth, 2013); therefore, this was an
opportunity to give those at the secondary level input on the topic of online learning
where further research is needed.

Once the qualitative data were completed, secondary teachers’ perspectives were
collected based on when they were received, and were completely anonymous. For
example, the first participant respondent responded on May 7th at 7:50 AM and provided
an opinion on both advantages and disadvantages of online learning. Each district had its
own link, however the responses were collected without regard to district identification
and were confidential without regard from which district they came. Some of the responses as far as advantages are as follows in Table 7.

Table 7.

1st Response to the Advantages and Challenges of Online Learning (or Question #9)

<table>
<thead>
<tr>
<th>#</th>
<th>Responses</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The advantages of online learning is that student will be ready for the business world. So many companies are going to the online model to save money. Also, if successfully completed, the student will be very good at time management. Disadvantage is cheating. I believe the way the system is set up now, a student can cheat their way through school and not learn much at all.</td>
<td>5/7/2015 7:50 AM</td>
</tr>
</tbody>
</table>

The qualitative portion of the study provided the opportunity to satisfy the purpose and aim of the study by giving teachers the chance to provide their opinions on online learning regardless of whether their teaching experience included online instruction or not.

Population and Sample

One of the three districts used was a large school district in southwest Washington composed of six middle schools, six high schools, one alternative school, and an online program that served both middle and high school students. The district served a total of 26,218 students overall as of the May 2014 student population count, and had 1,523 secondary teachers including elementary teachers (Office of Superintendent of Public
Education, OSPI, 2014). The second district was a small district in southwest Washington with one high school, two middle schools, and an alternative learning program with some credit recovery, with an overall total of 3,148 students and 179 secondary teachers, including elementary teachers (Office of Superintendent of Public Education, 2014). The last district was located in north-central Washington. It was somewhat larger than the smaller district in southwest Washington, with a total of 5,160 students and 213 secondary teachers according to OSPI (2014). The only secondary teachers from this district who participated in the study were those who taught online. Two of the three districts provided written approval for the survey distribution (Appendix B) and the IRB gave implied consent to distribute the survey.

Communications were made to the appropriate contacts in each district to get approval to circulate the survey or to extend an invitation to secondary teachers that would be willing to participate (Appendix F). This communication took place both in person and through email based on location of the district. In the larger district, the chief financial officer provided faculty numbers among all of the schools (both high school and middle), plus alternative programs equaling 836 secondary teachers. However, the surveys were then distributed to each building’s principal, and not all of them distributed the survey to their secondary teachers. Numerous communications were made to follow up with all principals to confirm if they sent out the survey or not. The total number of members in the larger school district who had the opportunity to complete the survey was 538 teachers. One alternative high school, three high schools, and one middle school did not send out the survey for teachers to complete.
In the other two districts, 97 teachers received the survey in the smaller school district in southwest Washington, while 75 online teachers had the opportunity to complete the survey in the district in north-central Washington. The total number of secondary teachers between the three districts who had the opportunity to complete the survey was 710, of those 282 completed the survey or almost 40%.

In two of the three districts, a FTF meeting took place proposing the study, followed by emails proposing the study to the district administrator (Appendix E). This was followed up by another email that would be used to send to secondary teachers inviting them to participate by completing the survey (Appendix F) along with the directions, three different links were created for the same survey to track each district separately. Challenges arose when contacting the school district in north-central Washington with numerous email communications that occurred first with the district’s superintendent for approval and then further communications that took place through their online vendor representative that took care of circulating the survey to teachers, as per the superintendent’s request.

Instrument for Data Collection

The ideal method to obtain as many responses on the perceptions of secondary teachers was to distribute a survey. According to Creswell (2014), the purpose of a survey is to obtain opinions from a sample population. Furthermore, a properly designed survey can obtain larger amounts of information with rapid turnaround. The design was a 10-question survey created using numerous examples piloted in a survey methods course. This created a pool of questions that were drawn upon that most closely paralleled the purpose and aim of gathering data concerning perceptions of online learning and
identifying different strategies and/or tools that could be used to create a successful online learning program. The final 10-question survey consisted of eight close-ended questions that gathered information that created a profile of those who participated in the study, and then two open-ended questions were included to gain their opinions on both the advantages and challenges of online learning (question 9), and the tools and strategies that are necessary, in their opinion, to create a successful online program (question 10).

Survey Monkey® was the online engine used to create all the surveys. The final survey was decided upon by both the researcher and dissertation committee. The first eight questions asked for responses in either the form of a Likert-type scale or in the form of multiple-choice answers that could be used for any population to collect demographic information. The data collected with the first eight questions were then converted to bar graphs and raw data showing the total number that responded to the question and their answers to the question, as shown in Figures 2 and 3.
Q2 How many years have you been in education?

Answered: 282    Skipped: 0

0-5

6-10

11-19

20+

0%          10%           20%        30%        40%         50%          60%        70%         80%        90%     100%

Figure 3.

Numbers of Years/% of the secondary teachers that have taught various numbers of years

Table 8.

Raw numbers on the numbers of years taught and percentages of those that took the survey

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>% of Respondents</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>12.77%</td>
<td>36</td>
</tr>
<tr>
<td>6-10</td>
<td>23.05%</td>
<td>65</td>
</tr>
<tr>
<td>11-19</td>
<td>34.40%</td>
<td>97</td>
</tr>
<tr>
<td>20 or more</td>
<td>29.79%</td>
<td>84</td>
</tr>
</tbody>
</table>
Questions 1-7 centered on creating the demographic information of those that participated in the survey and provided a background into their experience in education, as well as if they had any online teaching experience.

The following 10 questions were included on the survey that were distributed to the secondary teachers;

1. Please enter you gender.
2. How many years have you been in education?
3. What grade level(s) do you teach?
4. What subject(s) do you teach?
5. In what format is online learning currently being used in your school and/or district?
6. Do you have any experience teaching online? If you answered no, skip to question 8.
7. If you have experience teaching online, how many years have you taught online?
8. Do you think a student that primarily takes online courses and graduates, can be prepared just as much as a student that graduates from a traditional classroom?
9. In your opinion, what are the advantages and challenges for students at the secondary level learning online?
10. In your opinion, what does online learning look like, in other words, what tools or strategies are used to make it successful?

These questions are included in Appendix A and were used to first describe secondary teachers’ perceptions of online learning in Washington. Then, the aim of the study was “to make recommendations to secondary school leaders on best practices for online learning.”
Researcher’s Role

The researcher’s role in the study was one who has both taught in a classroom and online. Therefore, the researcher brings a more in-depth perspective of what the different types of online programs are, what they are used for in the state of Washington, and whom they serve. Thus, when data were collected there was a greater understanding of the themes that exist or could exist based on participant responses. This was the case especially with a few of the responses to question 9 when the respondent did not literally write advantages and the disadvantages. Some respondents wrote pro’s and con’s, while others insinuated advantages or disadvantages. Some examples of not clearly identifying a response as either a advantage or challenge, were the following responses;

Respondent #10: “Interpersonal relationships are lacking. Feeling a part of a community is hard. Students also struggle with staying on top of work.”

Respondent #119 gave the hypothetical ideal situations for both the deficits of online learning and the ideal situation for online learning:

Respondent #119: In the right environment which includes an adult for help, a student could use the Internet to help answer questions on assignments, receive step by step instruction (Depending on the site) in math. Basically, the student could research anything that they need for what they want to learn. But that is almost the perfect environment. On their own, the opposite seems to occur. Without help, students get off task easily becoming distracted by video games, music, chat rooms, youtube etc... Decreasing work productivity.

As an educator, this has not only been an opportunity to collect the perceptions of colleagues pertaining to online learning, but a chance to discover from both research and
survey results the numerous aspects that support a successful online program, many of which may not be obvious. In addition, Creswell (2014) warns that a researcher must guard against preconceived notions, especially when a researcher studies one’s own organization, friends, or immediate work setting, referring to this as “Backyard” research (p. 188). It can often lead to compromises or an imbalance of power between inquirers and participants. Hence, although the information may be convenient to collect, it may not be accurate information and may jeopardize the roles of researchers and participants.

Data Collection Procedures

The researcher first communicated to all of the districts that participated in the study to confirm that it agreed to circulate the survey. However, no survey was circulated until the proper procedures were taken to get the approval from Creighton University’s IRB. Once IRB approval was gained, an email was sent out to the designated contacts in all three districts used in the study (see Appendix E) and followed up with a FTF meeting to explain the survey and the goals of the study with both school districts in southwest Washington. Due to time constraints and the logistics required to meet the contacts in the other district in north-central Washington, numerous emails were made to not only the district, but the representative at K12 that the district chose to circulate the survey to secondary teachers (see Appendix F) that taught online through their district.

The next step was to circulate the survey with the email sent to secondary teachers on Monday, April 13th, 2015, with the survey closing on Friday May 8th, 2015. In order to obtain close to 300 responses, another email was sent on Wednesday, May 6th, 2015 (see Appendix G) for a final attempt to eclipse the 300 response size. Table 9 and Figure
4 show both the chart and the number of responses made each day between 4/13/2015 through 5/8/2015, amongst all three districts:

Figure 4.

Dates and number of responses on those dates

Table 9.

Number of Responses Day-By-Day During the Circulation of the Survey (Both Bar Graph and Raw Data)

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>4/13/2015</td>
<td>8</td>
</tr>
<tr>
<td>Tuesday</td>
<td>4/14/2015</td>
<td>18</td>
</tr>
<tr>
<td>Wednesday</td>
<td>4/15/2015</td>
<td>80</td>
</tr>
<tr>
<td>Thursday</td>
<td>4/16/2015</td>
<td>53</td>
</tr>
<tr>
<td>Friday</td>
<td>4/17/2015</td>
<td>26</td>
</tr>
<tr>
<td>Saturday</td>
<td>4/18/2015</td>
<td>1</td>
</tr>
<tr>
<td>Sunday</td>
<td>4/19/2015</td>
<td>2</td>
</tr>
<tr>
<td>Monday</td>
<td>4/20/2015</td>
<td>19</td>
</tr>
<tr>
<td>Tuesday</td>
<td>4/21/2015</td>
<td>2</td>
</tr>
<tr>
<td>Wednesday</td>
<td>4/22/2015</td>
<td>11</td>
</tr>
<tr>
<td>Thursday</td>
<td>4/23/2015</td>
<td>12</td>
</tr>
<tr>
<td>Friday</td>
<td>4/24/2015</td>
<td>8</td>
</tr>
<tr>
<td>Sunday</td>
<td>4/26/2015</td>
<td>1</td>
</tr>
</tbody>
</table>
As an online teacher, there may have been a bias to carry more weight on the responses from those with online teaching experience. However, each response was anonymous and therefore, the open-ended responses stood independent of each other, with only a few mentioning that they did have online teaching experience. For example, response number 58 (these were anonymous and just taken in the order that they were completed) explained both the advantages and challenges of online learning (note: IQ was the name of the online program in one of the districts):

Response 58: In my comments I am referring to regular IQ courses and not Credit Recovery Advantages: Self-paced options for recovery and advancement for students who need them Flexibility can meet the needs of diverse learning situations that include family, health, religious and other variables Challenges: low motivation level of most online learners significant numbers of students and families with life situations that make consistent contact and participation challenging (parents moving, kids moving, caring for family members, jobs, etc.) lack of support from the district with hiring enough staff (administrators, counselors, etc.) to meet the demands of the online school environment. Layers of record keeping required by ALE is obnoxious and takes a huge amount of time which could be far better spent with students in the learning environment.
Or response number 75 that came from the one of the other online programs in one of the districts;

Response 75: In fact, WAVA students learn MORE than students in a brick and mortar school. WAVA curriculum is MUCH harder as the students cover more ground than a student in a brick and mortar school. The challenges are when a student does not want to be in WAVA. There are many reasons for this, and it is very difficult to get the student's "buy in" when being in the on-line school is not there idea. Especially when they see how hard it is. Students who want to be with WAVA do amazing. The main advantage is that WAVA meets the needs of Students who do not/cannot attend a brick and mortar school. Students who have disabilities, been bullied, the bullies themselves, girls that are pregnant or already have babies, athletes, actors, children of famous parents who travel a lot, and so on. WAVA meets a HUGE need that the brick and mortar cannot! I spent 24 years as a classroom teacher and the last 5 teaching with WAVA. I LOVE WAVA!

Otherwise responses were totally anonymous and there was no way of knowing if the responder had online teaching experience or not, unless they mentioned they did as was the case with the two responses above.

Table 10 shows the final numbers for all three districts with the total number of participants who received the survey and the total number who responded. Next, Table 10, provided the total percentage of those that received the survey and those that responded is included.
Table 10.

Total number of Teachers who received the Survey and the Number and Percentage of Those who responded

<table>
<thead>
<tr>
<th>District</th>
<th>Total # of secondary teachers receiving the survey</th>
<th>Total # of respondents</th>
<th>% of those that received the survey that responded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large district in Southwest Washington</td>
<td>538</td>
<td>220</td>
<td>*41%</td>
</tr>
<tr>
<td>Small district in Southwest Washington</td>
<td>97</td>
<td>37</td>
<td>38%</td>
</tr>
<tr>
<td>Small district in North Central Washington (just their online school)</td>
<td>75</td>
<td>25</td>
<td>33%</td>
</tr>
<tr>
<td>Total</td>
<td>710</td>
<td>282</td>
<td>*40%</td>
</tr>
</tbody>
</table>

Note: *indicates both percentages are rounded up.

In the large district, emails were sent out to all the middle school and high school principals who then distributed the survey to their staff. This was followed up with an email to confirm that they received the survey and that they distributed it, see Appendix H, for an example response.

Quality and Verification

A dual approach was used to ensure validity of the data collected. First, by triangulating the different data sources or identifying numerous possible categories or themes and then comparing information from what was collected (Creswell, 2014) this was used in developing or justifying the themes that were eventually decided upon. This
further supports the data by presenting some similarities. For example, the data collected supported the advantage of students being able to move at their own pace (Bollinger & Wasilik, 2009; Harvey et al., 2014) or the challenge of the lack of social interaction or connections (Bollinger & Wasilik, 2009; Diramio & Wolverton, 2006; Kirby et al., 2010; Thickstun, 2014). Next, the researcher combined themes and used rich, thick descriptions that convey the findings (Creswell, 2014), which was done by combining similar themes and so providing a much deeper understanding of the themes that were decided upon. In addition, by allowing one of the dissertation board members to review the themes and to further combine themes that are similar, according to Guest, McQueen, and Namey (2014) this ensures reliability due to the intercoder agreement (or cross-checking). The intercoder agreement is based on the agreement between two or more coders on the themes that were generated, developed, and combined based on similarity or similarities. The open-ended questions were used because the person responding is free to answer in any manner he or she chooses. The quantitative data provides the reader an overall view of those faculty members that chose to participate, providing information about their teaching experience both in the traditional classroom and online, the subject or subjects that they teach; years of experience and so on. The qualitative portion gave each participant an opportunity to provide feedback on their perceptions of online learning or how they perceive it.

The reliability of a survey is always a concern, as is the validity. According to Roberts (2010) reliability is the degree to which the instrument consistently measures something from one time to another. The close ended responses garner the same types of information that provides the demographic information from those that partook in the
SECONDARY TEACHERS’ PERCEPTIONS OF ONLINE LEARNING

survey. The reliability of the open ended questions sought to gain a perspective on secondary teachers’ views or opinions on the advantages first of online learning for students and then the challenges posed by online learning. Therefore, the reliability depends on those that participate in the survey and the experiences of those participants. Therefore, reliability can change over time with participants with more online experience and more knowledge of online learning. Next, it can depend on the demographics of the secondary teachers that take the survey with different parts of the country with more online programs than others. Last, reliability of perceptions can also change over a period of time with the changing of alternative learning requirements that can influence teacher responses. Validity then, according to Roberts (2010) is the degree to which the instrument measures what it purports to measure, or the trustworthiness of the data collected. As far as validity was concerned, the last two open-ended questions simply gave those secondary teachers an opportunity to share their opinions and their perceptions of online learning. Furthermore, the use of member checking was used to further narrow the number of themes collected by participants. This was done by meeting with one of the dissertation board members to further narrow the number of themes and condense those that may have overlapped from the list that was originally assembled.

Ethical Considerations

Those who needed to be contacted were contacted from the beginning in order to get district willingness to participate in the study. Initially, four districts were going to participate. (Note: when the original email was sent to the district representatives, the survey URL was included for the administrators to review, not distribute until IRB approval was gained.) Three of the 4 districts did review the survey to approve it, but
one of the districts immediately sent it out to their teachers that teach in their online program. This was done before IRB approval and was reported to the IRB. IRB agreed with the researcher’s solution to use that district as a test run to make sure the link worked and the data was collected properly in Survey Monkey®. The data from that first district were never used, and the IRB agreed with the researcher’s solution. In order to ensure that the data from the first school district would not become part of the overall data set, different links to the same survey were created for each district, and any responses from the first district were not included. In addition, IRB wanted to be informed to whom the survey was to be circulated, because if it was to be circulated to students, more paperwork would have been required. However, it was circulated only to teachers at the secondary level, the application consisted of the link to the survey and filling out the Determination of Exempt Status (per 45CFR46.101 (b) 2/3): Observation, survey, interview application form (see Appendix C).

Once all the applications were submitted and IRB approval were received via telephone and letter on April 9, 2015 (see Appendix I), the first the survey was circulated to teachers on April 13. Respondent anonymity was ensured throughout the process with each question (questions 1-10) producing discrete data that could not be linked back to any individual respondent. For example, questions 1 through 8 were automatically tabulated into the bar graphs and raw data as the surveys were received. The qualitative data appeared in chronological order with an example of a chronological participant response presented in Table 11.
Table 11.

Responses, in Chronological Order to Question #9

<table>
<thead>
<tr>
<th>#</th>
<th>Responses</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The advantages of online learning is that student will be ready for the business world. So many companies are going to the online model to save money. Also, if successfully completed, the student will be very good at time management. Disadvantage is cheating. I believe the way the system is set up now, a student can cheat their way through school and not learn much at all.</td>
<td>5/7/2015 7:50 AM</td>
</tr>
<tr>
<td>2</td>
<td>Advantages -Get 1 to 1 help more readily. -Flexibility for the school day/hours -Potential to get more accomplished Disadvantages -less regular interaction with others</td>
<td>5/6/2015 7:59 PM</td>
</tr>
<tr>
<td>3</td>
<td>Courses are not rigorous enough - not a good preparation for college Many courses are just too old and need to be updated.</td>
<td>5/6/2015 4:39 PM</td>
</tr>
<tr>
<td>4</td>
<td>They can move at their own pace.</td>
<td>5/6/2015 2:50 PM</td>
</tr>
<tr>
<td>5</td>
<td>The advantages are that students can work online during their own time on their own schedule. Many of our students are having to work and online classes provide a great deal more flexibility. Challenges are in getting timely help from an instructor on some online classes. The research shows that the learning that occurs between an online class and a face to face class is very similar.</td>
<td>5/6/2015 1:35 PM</td>
</tr>
</tbody>
</table>

Limitations

According to Roberts (2010), a limitation is a factor that may or will affect the study in an important way, but is not under the control of the researcher (p. 139). One of the most significant shortcomings of the study or survey were the potential misunderstandings or the vernacular used in the survey. This was apparent because only
79 out of the 277 (28.52%) that responded to question 5 stated they had online teaching experience. This could have influenced some of the responses on other parts of the survey based on the lack of experience teaching online. In addition, on question 9, teachers perceptions on the advantages and challenges of online learning, 230 out of 282 responded (81.5%), while on question #10, opinions on the strategies and tools necessary to start a successful online course, only 191 teachers responded out of 282 participants (67.7%), and of those 191 that responded, 20 said they were “unsure.”

Other limitations were apparent on question #5 with different interpretations of what constitutes an online program that varied from the distribution of iPads in one’s district (19.23%) to credit recovery labs with limited staff supervision (46.92%). Therefore, it is difficult to compare programs when districts institute differing online learning models that are perceived differently by teachers with each having differing knowledge of the programs available. Therefore, the perceptions in one state may be quite different than that in another state. Influenced most likely by their use or uses of online programs and the experience that secondary teachers have in teaching and familiarity of their district’s various or singular use of online learning.

Issues with the vernacular that were used on Question 10 could have been a problem with the understanding of the question. The exact wording on Question 10 was, “In your opinion, what does online learning look like, in other words, what tools and strategies are used to make it successful?” Possibly, in order to get more responses the question could have been quite simply, “In your opinion, what tools and strategies are needed to run an online program?” By changing the wording, this could have increased
the number of responses and still could have aligned with the purpose and aim of the study.

Summary
Following IRB approval, four school districts in Washington approved distribution of a ten item survey to all 6 through 12th grade teachers. Of the 710 eligible teachers, 282 responded for a 40% response rate. The survey was first piloted and the final version consisted of 7 demographics questions, one Likert-type question on quality of online education, and two open-ended questions requesting participants’ perceptions of online learning at the secondary level. Quality measures included triangulation, audit trail, peer review, and rich, thick data. No member check was conducted to maintain participant anonymity.
CHAPTER FOUR: FINDINGS

Introduction

The purpose of this qualitative study was to describe secondary school teachers’ perceptions of online learning in Washington State. The majority of the research conducted in the arena of online learning has been in higher education. This research examined the different perspectives of secondary teachers’ perceptions of online learning at the middle school and high school levels. The methodology used were a 10-question survey that served to first create demographic information of those that participated in the survey, with the last two open-ended questions used to gain the opinions of secondary teachers concerning the advantages and challenges of online learning (question 9), and to gain their perspectives on what tools and/or strategies can be used to create and operate successful online programs (question 10). The data provided by question 10 then focused on the aim of the study or to make recommendations to secondary school leaders on best practices for online learning.

Review of the Methodology

The methodology that was used to gain an understanding of secondary teachers’ perceptions of online learning was the use of a survey that served two purposes. First, it obtained data on the demographics of those who completed the survey. Second, the use of open-ended questions gave participants a chance to share their opinions and/or perspectives of online learning. The survey was used because it was the best way to gain a large amount of information from all three districts. Multiple surveys were created and then a final survey was decided upon between the researcher and dissertation advisor.
Links for the surveys were created, however, because of logistical issues with one of the four potential participating districts sending out the link before IRB approval, three separate links were created for the same survey to serve the remaining three districts. Then the necessary application was submitted to Creighton University IRB for approval. The approval application included the survey link, approval letters from the institutions involved, emails sent to administrators and participants, the Creighton IRB approval document, and proof of CITI training completion. At the same time that documents were collected for IRB approval, communications between the researcher and the original four school districts that were going to be included in the study were taking place, one of the districts had to be excluded from the study for distributing the survey link before IRB approval was gained. A series of e-mails were exchanged to gain the necessary approval from the district administrators with the understanding that they could look at the survey themselves to approve it being used. However, the administrators were instructed that they needed to wait until the researcher gained the approval from Creighton’s IRB. Then, once IRB approval was gained on April 9, 2015, the surveys were distributed the following Monday, April 13, along with an email for secondary teachers that included both an introduction and invitation to participate, and directions (see Appendix F). Follow up emails were sent to the large district, that included many schools, to confirm whether the principals sent the email with the link or not, and to get the exact number of teachers who received the survey link. The follow-up emails were done in order to get a firm idea of the number of participants that received the survey (see Appendix G). This was necessary in the largest of the three school districts, as mentioned earlier, not all of the principals circulated the survey to their secondary teachers. Of the possible 836
secondary teachers in the large school district that could have participated in the survey, only 538, or 64%, of the possible teachers did receive the survey. Principals from one of the alternative high school, three high schools, and one middle school did not distribute the survey to their secondary teachers to complete. Between the three districts, a possible total of 710 secondary teachers received the survey, and of those, 282 (40%) at least partially completed the survey.

Surveys were completed over a 3-week period, one follow-up email toward the end of the survey cycle was sent to remind participants or give them a last opportunity to complete the survey. Once all the surveys were completed, the data gained from first the eight questions was finalized as bar graphs and charts of raw data (see Tables 8 and 9), with the data provided to the researcher the demographic information of those that participated in the study, completed automatically through Survey Monkey®. Next, the researcher collected the data on each response to the last two questions (questions 9 and 10). Question 9 was a two-part question concerning the advantages and challenges of online learning. From these responses, segments and two different charts were created with the segments that were most often written about by those who participated in the survey. Question 10 focused on suggestions or opinions on the strategies and tools to create successful online programs. Once the segments were compiled for questions 9 and 10, further condensing of this information was done by the researcher, and then even more changes were made to ensure reliability when one of the dissertation committee members that further condensed the results into segments.
Data Analysis Procedures

The first seven questions were used to create demographic information of those that participated in the survey. Responses to Likert-type questions were immediately tabulated into bar graphs and raw data charts as each participant completed the survey. Once the survey was completed, the information of the secondary teachers were automatically compiled through Survey Monkey®. Key to the purpose of the study were the collection of responses to questions 9 and 10. The qualitative data, or question 9 and 10, were collected over a period of three weeks and placed in to meaningful segments and coded and recoded, until it was both condensed by both the researcher and a committee member that also contemplated the various segments and the placement of them. This was done with all qualified responses of the 230 of 282 responses on the advantages and the challenges of online learning (question 9). Table 12 shows an overall list of segments from the responses provided by participants then was further condensed in Table 17, with the top 6 meaningful segments for both advantages and challenges of online learning. Question 9 sought opinions of secondary teachers with and without online teaching experience, in order to gain an understanding of their views of the advantages of online programs and the challenges faced by online learning programs. Then responses to questions 9 and 10 were collected and, as Roberts (2010) advised, the researcher should provide a description of the matrices used to display the data and identify the coding processes used to convert the raw data into themes or categories for analysis. Therefore, the researcher spent time reading each of the 230 responses to question 9, out of 282 survey responses, on the advantages and challenges of online learning. Then 191 responses were read on strategies and tools necessary for a successful online program, or
question 10, of those an additional 20 responded “unsure,” this will be discussed later.

Once each response was read, categories were made having to do with first the advantages, then the challenges as per question 9. Then the same was done with question 10 identifying the strategies and tools needed to make a successful programs. Numerous themes were then created for each of the three parts; advantages, challenges, and strategies and tools for a successful programs.

Next came the process of coding or organizing the data by themes and writing a word or sentence representing each category (Rossman & Rallis, 2012). These codes are often developed and referred to in past research. Therefore, with the data in hand, procedures for the coding process suggested by Tesch (1990) were followed. The researcher used the first four steps and then, once themes were identified, other “sets of eyes” were used to further narrow down the themes based on number of responses and the themes that emerged:

1. Get a sense of the whole
2. Once you have read numerous documents and or responses, make a list of all the topics
3. Find the most descriptive wording for the topics and then turn them into categories
4. In this case final decision on the themes were made by condensing the themes and combining the ones that were similar and listing the themes in order based on the number of responses. (pp 142-145)

Then the data was assembled (for both questions 9 and 10) in a chart and the researcher allowed one of the dissertation chair members to identify categories that could possibly
be combined with others based on similarity. Each response was read and then once the different themes were determined based on the number of responses, the researcher went back to identify any overlap between the pages of themes that were identified and then combined them.

Once the themes were identified and combined by the researcher, requests were made to others to also read through the themes and identify similarities and/or themes that could be combined. In this way, the researcher was able to narrow down the top categories or themes in each of the areas, advantages of online learning, challenges of online learning, and strategies and/or tools that can be used to make a successful online program.

Charts were then created showing the input of faculty members in all three districts and the number of times a particular theme was part of a response. Three charts were created: One each showing advantages, challenges, and strategies or tools needed to make a successful program, with the top six themes in each category based on the number of responses.

Table 12, is an overall list of the numerous responses from participants in a wide range of areas.

Table 12.

<table>
<thead>
<tr>
<th>Disadvantages category</th>
<th>Advantages category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer interactions</td>
<td>Students able to move at their own pace</td>
</tr>
<tr>
<td>Issues staying focused or self-motivated</td>
<td>Flexibility</td>
</tr>
<tr>
<td>Lack of teamwork or group collaboration</td>
<td>Ideal for students that are highly motivated</td>
</tr>
<tr>
<td>Immediate feedback or lack thereof</td>
<td>Technology or need to be tech savvy</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Potential socio-economic issues with getting proper technology/Internet access and technical issues</td>
<td>Ability to accommodate students with various backgrounds</td>
</tr>
<tr>
<td>Need for attentive learning coaches to help the student stay on task (overall lack of structure)</td>
<td></td>
</tr>
<tr>
<td>Issues with plagiarism and cheating</td>
<td>Fewer social distractions</td>
</tr>
<tr>
<td>Access to technology and technical issues</td>
<td>Convenience where learning can take place anytime and anywhere</td>
</tr>
<tr>
<td>Distractions at home and online</td>
<td>Instant access to information</td>
</tr>
<tr>
<td>Lack of extracurricular activities</td>
<td>Another way to make up classes (credit recovery)</td>
</tr>
<tr>
<td>Math difficult to learn online; needs to be face-to-face</td>
<td></td>
</tr>
<tr>
<td>High failure and dropout rates</td>
<td>Can have more elective options and extracurricular activities</td>
</tr>
<tr>
<td>More difficult for some</td>
<td>Rigorous curriculum</td>
</tr>
<tr>
<td>Many feel classes are less rigorous online</td>
<td>Cost effective for students in remote locations</td>
</tr>
<tr>
<td>Lack of knowledge and support from district/district administration</td>
<td>A way to meet students at their level</td>
</tr>
<tr>
<td>Huge amount of paper work dictated by ALE Laws</td>
<td>Hybrid model is a good solution</td>
</tr>
<tr>
<td>Difficult to identify students in need (malnourished, dirty clothes, signs of physical/sexual abuse, etc…)</td>
<td>Unique learning experience that can include working with others regularly</td>
</tr>
<tr>
<td>Not all classes offered online (PE, Art, Music, etc.)</td>
<td>Students have to become more organized</td>
</tr>
</tbody>
</table>
Online teacher requires more time to plan and grade

Can resubmit and modify assignments

Difficult to accommodate different learning styles

Less paper to deal with

Fewer costs for the student

By developing many meaningful segments, the researcher, and later, one of the dissertation committee members, were able to go back and combine meaningful segments based on their similarity and then present the top six meaningful segments established by the number of total responses. The results section is presented in terms of the top six meaningful segments and the number of responses that directly related the decided upon segments. Many of the segments were developed based on participant responses, meaning that a category or segment had only one or just a few of the participants that provided input having to do with that particular segment. In order to ensure trustworthiness and quality of the data or themes created, as mentioned above, one of the dissertation committee members looked at the segments developed and helped to combine the segments that were related or similar, or just needed changes based on word choice or vernacular.

Table 13 is a collection of top 10 responses form participants related to the necessary strategies or tools used to create successful online learning programs. For question 10, only 191 answered the question, while 91 did not. Many segments were developed to address differing strategies and tools that can be used to make a successful online program, the top 10 segments are listed in Table 13.
Table 13.

*Top 10 Strategies or Tools to Make a Successful Online Program*

<table>
<thead>
<tr>
<th>Tools or strategies</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have to become tech savvy/easy navigation</td>
<td>49</td>
</tr>
<tr>
<td>Video live chats/discussion threads/recorded sessions</td>
<td>48</td>
</tr>
<tr>
<td>1on1 teacher communication</td>
<td>47</td>
</tr>
<tr>
<td>collaboration opportunities</td>
<td>30</td>
</tr>
<tr>
<td>Organized content</td>
<td>26</td>
</tr>
<tr>
<td>Not sure</td>
<td>20</td>
</tr>
<tr>
<td>Hybrid classroom</td>
<td>19</td>
</tr>
<tr>
<td>Self-motivation skills</td>
<td>18</td>
</tr>
<tr>
<td>Pace and flexibility</td>
<td>14</td>
</tr>
<tr>
<td>Communication amongst all parties</td>
<td>10</td>
</tr>
</tbody>
</table>

Tables 12 and 13 of the study provides both the advantages and challenges of online learning according to those participants that responded to the survey and the strategies or tools needed for successful online programs. By creating overall lists of many segments of responses or categories, the researcher and one of the committee members charted the original segments and then further condensed them based on the similarities between the original extensive list of segments.

**Results**

Of the 710 secondary teachers that received the survey, 282, or 40%, responded to at least a portion of the survey. The respondents’ gender breakdown revealed that 66%,
or 186 participants were female, two of the participants chose not to answer the question. Of the 181 participants, or 64%, reported 11 or more years of teaching experience. In addition, 108 participants, or 38%, taught solely at the middle school level, with 54%, or 153 participants, taught only high school. Only 21 participants, or 7%, taught a combination of both middle school and high school. Of those that participated, 77 were math teachers (23.70%), another 66 (23.40%) were English/Language Arts, and 84 (29.79%) responded other (or other subject areas). The numbers were skewed because some respondents entered different courses that they taught, therefore, they answered a combination of two or more and/or other, the total number of responses then were 388, more than the total number of those total number of secondary teachers that responded.

The last three close ended questions were directed to specifics on online learning, with a wide variety of responses on how online learning was or has been used in their district. Table 14 displays the total number of different responses on how online learning was used in each respondent’s district. Some responded in numerous modes because online learning can be perceived in different ways. Figure 5 shows the same data in bar graph format.
Q5 In what format is online learning currently being used in your school and/or district?

Answered: 260 Skipped: 22

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>% of those that Responded</th>
<th># of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ipad issued to students</td>
<td>19.23%</td>
<td>50</td>
</tr>
<tr>
<td>Credit recovery labs for students with limited adult supervision</td>
<td>46.92%</td>
<td>122</td>
</tr>
<tr>
<td>Virtual school with both synchronous and asynchronous modes of learning/delivery</td>
<td>30.38%</td>
<td>79</td>
</tr>
</tbody>
</table>

Figure 5.

*Bar graph on the percentage of respondent’s opinion on how online learning is used in their district*

Table 14.
### Table 14: Use of Online Learning

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hybrid course; with a combination of both online and traditional face-to-face</td>
<td>23.46%</td>
<td>61</td>
</tr>
<tr>
<td>Other</td>
<td>26.15%</td>
<td>68</td>
</tr>
<tr>
<td>Total Respondents:</td>
<td></td>
<td>*260</td>
</tr>
</tbody>
</table>

*260 responded, however, they could have responded more than once depending upon the use of technology in their school. Percentages reflect the overall number of responses versus total respondents.

Table 14, clearly shows the multiple uses of both technology and differing ways that districts use technology ranging from issuing ipads to students to the of hybrid courses using the combination of both online learning and teaching FTF. The majority of those that responded, or 122 participants, perceived the use of online learning as the use of credit recovery labs where students work independently with limited supervision. Further details would be needed to discover the use of the technology in the other categories to identify what programs are used and the technology that is utilized.

On question 6, the focus shifted to identifying the number, or percentage, of teachers who had online teaching experience. Although five participants skipped the question, of the 277 who responded only 79, or 29%, had online teaching experience. For question 7, 87 respondents, versus the 79 who answered question 6, responded with the number of years of online teaching experience as shown by the following pie chart or figure 6.
Figure 6.

*Years of online teaching experience*

Of those secondary teachers with online teaching experience, more than 70% have been teaching online for 5 years or less, with 72% or 198 respondents with no online teaching experience.

Responses to question 8 were tabulated into a bar graph. Figure 7, addresses secondary teachers opinions on comparing “Those that graduate taking primarily online courses are as prepared, as those that graduate from a traditional classroom setting.” The following pie chart or Figure 7, shows those results;
Figure 7;

*Likert scale comparing the preparation of those that graduate taking primarily online courses vs. those that graduate from a traditional classroom.*

At one end of the spectrum Table 7 illustrates that 31% of those that responded either strongly agree or agree that taking courses primarily online is equivalent to taking courses in a traditional classroom. On the other end of the spectrum, 51% of those that responded either disagree or strongly disagree that graduating with an online program is equal to taking courses in a traditional classroom.

Questions 9 and 10 sought more in-depth responses concerning their views of online learning. First, Question 9 asked respondents their opinion regarding the advantages and disadvantages of online learning. With the wide variety of responses that were collected and the numerous segments that were revealed, the researcher recorded the codes and then further condensed them due to category similarity. Then an attempt to
further enhance trustworthiness, one of the dissertation committee members was called upon to further combine categories based on segment similarities. Table 15 shows the top six themes for the advantages of online learning according to those that responded to the question (230 answered the question, and 52 skipped it) and the number of responses in each category.

Table 15.

*Top Six Advantages of Online Learning*

<table>
<thead>
<tr>
<th>Advantages category</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are able to move at their own pace</td>
<td>69</td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>48</td>
</tr>
<tr>
<td>Ideal for students that are <em>highly motivated</em></td>
<td>43</td>
</tr>
<tr>
<td><strong>Technology</strong> or need to be <em>tech savvy</em></td>
<td>25</td>
</tr>
<tr>
<td><strong>Ideal for student who do not do well in a traditional classroom</strong></td>
<td>24</td>
</tr>
<tr>
<td>Ability to <em>accommodate students</em></td>
<td>22</td>
</tr>
</tbody>
</table>

Although other segments were provided by respondents, Table 15 combined other segments that were similar and represented the overall theme of the majority of those that responded to the advantages of online learning, with key words in **bold**. Next, Table 16 illustrates the top six themes concerning the disadvantages of online learning according to those that responded.

Table 16.
Top six Disadvantages of Online Learning Themes

<table>
<thead>
<tr>
<th>Disadvantages category</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer interactions with others and difficulty developing higher level cognitive skills without the interaction</td>
<td>101</td>
</tr>
<tr>
<td>Issues staying focused or need to be self-motivated and the need for attentive learning coaches to help student stay on task (lower accountability)</td>
<td>78</td>
</tr>
<tr>
<td>Lack of teamwork, group collaboration, or group learning (or hands-on activities)</td>
<td>45</td>
</tr>
<tr>
<td>Getting timely help, feedback, or immediate communication from an instructor</td>
<td>35</td>
</tr>
<tr>
<td>Potential socio-economic issues with getting proper technology/Internet access and technical issues</td>
<td>27</td>
</tr>
<tr>
<td>Need for attentive learning coaches to help the student stay on task (overall lack of structure)</td>
<td>26</td>
</tr>
</tbody>
</table>

As with Tables 15 and 16, key words are in bold that signify the key segment that those that responded to question #10. Question 10 is further reduced to the top six overall responses that were necessary strategies and tools necessary to create successful online programs as shown in Table 17.

Table 17.

Top 6 Strategies or Tools to Make a Successful Online Program

<table>
<thead>
<tr>
<th>Tools or strategies</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have to become tech savvy/easy navigation</td>
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</tr>
<tr>
<td>Video live chats/discussion threads/recorded sessions</td>
<td>48</td>
</tr>
<tr>
<td>1on1 teacher communication</td>
<td>47</td>
</tr>
<tr>
<td>collaboration opportunities</td>
<td>30</td>
</tr>
</tbody>
</table>
Organized content 26
Not sure 20

Tables 15-17, are condensed versions of the original data that were collected to ascertain the perceptions of online learning of those secondary teachers that participated in the survey, therefore, both the research question and purpose of the study was satisfied. Further steps were taken once the segments were created for Question 9 and 10 that assured trustworthiness, by having one of the dissertation committee members to read and further reduce the number of segments of categories by combining some of the segments that were similar. In summary, the researcher documented vast numbers of advantages, challenges, and strategies and tools that are required for successful online programs based on the total number of responses. By combining the different segments, lists of the top 6 advantages, challenges, and suggestions were formulated.

Summary

Demographic data indicated that the majority of respondents, or 66%, were female, 64% had 11 or more years of teaching, 38% taught only at the middle school level, 54% taught only at the high school level, 23.7% taught math, 23.4% taught English/Language Arts, and 29.8% taught a variety of classes. Data revealed a variety of online learning strategies utilized including iPads, credit recovery, virtual school, hybrid, and other techniques. Only 31% of the respondents strongly agreed or agreed that high school graduates were as prepared as those students graduating from a traditional classroom setting. Coding of qualitative data resulted in six themes related to advantages of online learning (pace, flexibility, ideal for motivated students, technology, ideal for students who do not do well in traditional classrooms, and the ability to accommodate
students) and six themes related to disadvantages (fewer interactions, need for student
self-motivation, lack of teamwork, lack of immediate feedback, technology issues, need
for attentive learning coaches). Six strategies were suggested for successful online
programs. These strategies included technology savvy navigation, use of
videochats/discussion threads/recording sessions, one on one teacher communication,
collaboration opportunities, and organized content.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS
Introduction

The purpose of Chapter 5 is to examine the data in more detail and discover how the data contributes to the existing knowledge and what new insights were discovered that contribute to understanding of online learning, especially at the secondary level. By collecting the opinions of secondary teachers in the state of Washington and getting their perspectives on the advantages and challenges posed by online learning, in addition their suggestions on the tools and strategies they believed necessary to create a successful online learning programs. However, there is still much to be learned, and many secondary teachers responded by expressing that they were “unsure” as to what the tools and strategies needed to make a successful online program might be, or they did not respond at all to the question.

Summary of the Study

The purpose of this qualitative study is to describe secondary teachers’ perceptions of online learning in Washington. The overall aim of the study is to make recommendations to secondary school leaders on best practices for online learning. By circulating a survey to four school districts initially, with one being disqualified for circulating the survey before IRB approval, differing perspectives of teachers with varying backgrounds, were gathered both the advantages and challenges of online learning and the recommendations necessary for successful online programs. The first 7 questions were centered on creating a demographic profile of those secondary teachers that participated in the survey. The first seven questions used a Likert-type format, as did question 8. Question 8 served as a lead-in question for the last two survey questions and posed the question to participants, “if they believed a student that graduated with
primarily taking online courses, was as prepared as a student that primarily took all courses in a traditional classroom.” Next, with question 9, teachers were given the opportunity to provide their opinions on the advantages and challenges of online learning. Responses to this question were then classified into different segments and further combined on their similarities, with, the top six segments displayed in the final part of this study (both the top six advantages and challenges of online learning). Then the same was done with question 10, although the focus was only on the strategies and tools required to operate a successful online program.

Summary of the Findings

To get an understanding of the similarities and differences between the research and findings of the study, Table 18 summarizes both the advantages and disadvantages of online learning according to secondary teachers in the state of Washington that chose to participate in the survey.

Table 18.

Secondary teachers Top Six Advantages and Challenges of Online Learning

<table>
<thead>
<tr>
<th>Advantages of Online Learning</th>
<th>Challenges of Online Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students able to move at their <strong>own pace</strong></td>
<td><strong>Fewer interactions</strong></td>
</tr>
<tr>
<td>Flexibility</td>
<td>Issues staying focused or need to be self-motivated</td>
</tr>
<tr>
<td>Ideal for students that are <strong>highly motivated</strong></td>
<td>Lack of teamwork or group collaboration</td>
</tr>
<tr>
<td><strong>Technology</strong> or need to be <strong>tech savvy</strong></td>
<td>Immediate feedback or lack thereof</td>
</tr>
<tr>
<td><strong>Ideal for student who do not do well in a traditional classroom</strong></td>
<td>Potential socio-economic issues with getting proper technology/Internet access and technical issues</td>
</tr>
<tr>
<td>Ability to <strong>accommodate students</strong></td>
<td>Need for <strong>attentive learning coaches</strong> to</td>
</tr>
</tbody>
</table>
Dessoff’s (2009) study revealed that only 53% of students in the largest 50 cities in America were graduating on time. Online learning then was seen as an alternative to help those students who were not graduating. Like Hachey et al. (2012) the results of the survey mirrored that flexibility offered and the ability for students to set their own schedules that may include work, extra-curricular activities, and possibly children, is a major advantage of online learning. Bollinger and Wasilik (2009) believed that students’ ability to work at their own pace was also an advantage, and in this study teachers also believed that the ability of students to work at their own pace and to resubmit assignments or modify assignments were also a main advantage.

In this study, three of the top six advantages confirmed that online learning accommodated certain types of students. First, for those that are highly motivated and tend to frown on the distractions of a classroom, online learning is seen as an ideal opportunity to not only work alone and at one’s own pace, but possibly as a chance to work ahead, maybe even taking college prep courses or getting an early start by taking college courses in high school. Second, a number of respondents believed online learning is suited for students that struggle in the traditional FTF classroom. Last, online learning accommodates those students that may have health issues, those that need a more flexible schedule such as school athletes or thespians, teen parents, or victims of bullying who may not be able or willing to come into a traditional classroom setting including those that are geographically isolated. So, according to the respondents of the survey, online learning benefits a certain group of students that for one reason or another help the student stay on task (overall lack of structure).
need alternatives or have difficulties in a traditional FTF classroom. Respondent #13 summed this up well:

#13: The education model has never been a one size fits all for our nation's students. We have students from all backgrounds who enroll with us in our online program. They are students who include professional athletes, performers, and special needs, particular health issues, bully victims, anxiety disorders, or live in rural areas. An online program allows for the education experience to be completed remotely, particularly at home, which provides students the flexibility and opportunity to complete their education. For many of our students, a brick-and-mortar building would just not work for them. An online program is a safe, positive environment that accommodates for special needs and health concerns of the student. It trains them to utilize digital technology that consistently becomes more important to master for future professions.

The other advantage, as mentioned above, is the use of technology that can be perceived as both an advantage and challenge. Part of the challenge of online learning is not just learning, but the ability to become more aware of the technology required and the ability to solve technical issues or seek technical support. However, for some this can also be seen as a challenge of online learning, especially those that are limited financially and may not have the necessary resources to afford a computer and/or have access to Internet, both costs that may not be covered by districts. Hence, alternatives must be found to address these issues but do not impose other hardships on those students.

When discussing the challenges posed by online programs, the primary focus for the respondents to this study shed a significant light on the importance of social
interaction and the lack of teamwork that many face when taking online courses. These themes ranked first and third of the top 6 challenges list. The following three responses summarize the importance of social interactions to some of the respondents:

#15: I believe that communication is the most important skills that we can teach our students. That being said, communications is a broad topic covering the different types of communication: person-to-person, digital, written, spoken, body language. Most of these aforementioned styles requires one to have person-to-person communication. Tone and meaning get lost in digital communication, not to mention learning to deal with people and topics you might not agree with is paramount to success later in life.

#20: No interaction with a group, face to face, dealing with emotions, reading facial cues, isolating.

#45: Delayed or no opportunities for clarification of teaching points or instruction, and feedback. Additionally, something is lost in the discussion when it's not directly interactive. I think that the ability to directly view facial expressions, body language and behavior are critical to understanding how students deal with the obstacles of learning. I also think something is lost when one cannot directly and clearly see the expression of the instructor when one is receiving instruction, clarification or feedback...even if the lesson is skyped or in some type of live online presentation. I think it's an impediment to creating a group discussion and true analysis.

Furthermore, respondents stressed that the inability of students to get immediate feedback is also a downfall of online learning, especially if the student does not have an
attentive learning coach. Therefore, the overall lack of communication can lend to a student becoming or feeling more isolated and lost, and in some cases totally giving up.

Both the lack of social interactions and the inability to work with others is directly related to the second theme of the challenges listed by the respondents, “the lack of accountability or the issues students have staying focused,” the second most common theme. Kirby et al. (2010) and Bollinger and Wasilik (2009) emphasized that many students who do not succeed in online learning lack motivation, and Hachey et al. (2012) emphasized that those who do not succeed in one online course tend to rarely take another one. Furthermore, although the study did not directly probe into this, the daunting dropout rates of online programs as discussed in Chapter 2 under the challenges leads to the understanding that online learning is not for all students, and that those who are not self-motivated and organized will be the most likely to drop out or struggle in an online course.

When identifying the tools and strategies necessary for a successful online program, many suggestions were made, and although 10 selective codes were identified, 3 overall themes emerged and were identified in Table 19. These themes are; communication, classroom setup, and “not sure.” First, four of the top 10 themes focused on the importance of communication in a successful online program. The emphasis, as in any classroom, had to do with the 1-on-1 that a teacher can provide and the immediate feedback on both assignments and/or when a student has a problem (which can be done in various modes of communication: phone, email, synchronous session, written feedback, audio feedback, just to name a few). Teachers now have the ability to have video chats and create discussion threads or writing prompts to which students respond
and then respond to their classmates’ responses, thus giving the students an opportunity to interact both through video conferences and/or chat boxes or discussion threads.

Overall, the need for student interaction with others should be a priority, according to those that responded to the survey, as it gives students an opportunity to collaborate and work with others—a skill needed beyond their secondary education. Some of the following responses support this idea:

#95: In order to make online learning successful, you need an easy and interactive web platform as well as integrated cooperative learning cohorts that grow through regular forums, round tables, and webinars.

#102: In my opinion, the only way online learning can be successful is if it includes opportunities for collaboration, discussion, and interpersonal learning. In other words, real life application, real life skills, real life interaction with peers and teachers. Our credit recovery students sit in front of a computer screen, read, and answer a simple, test with questions that require only low-level thinking. That isn't education, it's fulfilling a requirement.

#103: I don't think a teacher can be replaced! Learning is inherently emotional. Students who develop a strong relationship with a teacher will learn more...

#109: I am not confident that online learning is always successful. In my opinion, activity based classes need a group to be successful, an environment where group dynamics and accountability are accessed daily. Online learning would need some sort of cohort or group that meets and interacts using technology, responding to each other and contributing to others ideas, comparing and contrasting, evaluating opinions as you form your own arguments and conclusions.
In addition, respondents also pointed out the importance of communication among teacher, student, parents and administration. This type of multi-layered communication functions as a way to monitor student progress and make adjustments if students experience roadblocks or are not successful in an online venue. A key too many online programs is this type of multi-layered communications among all parties that may also include a mentor or possible counselor.

The next theme is directed to classroom setup, including the technology used, curriculum, pace of the course, student flexibility, and student motivation. According to those that responded to the survey, Internet access and an LMS system that is user friendly is of the utmost importance (the most common theme). The following comments from respondents prioritize the importance of technology:

#79: Successful: Reliable hardware, software, server systems. Comprehensive online resources in support of classroom instruction and practice.

#85: I would need enough iPads, computers, or Chrome books for each student. I would need training on Google drive, an affective curriculum/resources to use, ways to monitor student's learning. Learn how to assess students online.

#141: The Wash. State K12 system offers a consistent curriculum, online textbooks, and assessments that are used by all of the online teachers. Students and teachers use computers that have the ability to "Skype" so that the students can see the teacher giving instruction and they can hear the audio. Both need a strong Internet connection. Online Teachers need: Large monitor, computer with Internet, Microsoft Office (power point). A dual monitor capability is handy. The K12 system provides the online Blackboard system and K-12 grading and record
keeping system. Some teachers may need to video tape their lessons, especially science teachers that need to demonstrate a scientific lab experiment. Teachers establish "class time" when everyone is expected to be online for instruction, collaboration, and assistance. Students structure their "off line" time by completing and submitting assignments on time to the teacher. Teachers are using their offline time to correct work, enter scores, provide feedback to students and parents, lesson planning and developing the videos or Power points for "class time."

Furthermore, in addition to an easy to use LMS, in order to make that transition smooth for a student an organized virtual classroom with easy to navigate curriculum including a syllabus, pace chart, and an easy to use drop box to submit assignments is crucial for their success. Another point of emphasis in the classroom setup portion for many (19 respondents) is the transition in between attending a traditional classroom and working in a full-time online program, in other words, many feel that the hybrid model or a combination of the two (FTF and traditional classroom) is the better option, as pointed out by the following respondents:

#12: Web cams and mics are a must. In my opinion a blended model containing both online and in-person supports is the best option for students.

#27: In my opinion it is a combination of both online and classroom based learning, using the tools as resources, and aids to instruction and to implement more project-based learning activities and 21st century skills.

# 73: A mixture of both online and classroom based instruction
#117: Hybrid classes are best for most students. The in-person contact is really important. It also seem to help when there is some kind of "class community"

This is also supported by Susan Patrick (2010) iNACOL’s president, who in an interview stated the following concerning online learning: “I believe the future of education is in blended or hybrid online learning-combining taking the best of online learning and face-to-face education (p. 106).”

The next theme stated by 91 out of 282 respondents did not attempt to answer this question concerning the tools and strategies needed to make a successful online program, and of the 191 that did respond, 20 of them responded that they were “not sure.” This includes secondary teachers with varied backgrounds and degree of exposure to online courses, either teaching them or taking an online course themselves. With the numbers being much lower indicates the need for future research in this area as more teachers gain exposure to the online learning setting.

**Implications for Action/Recommendations for Further Research**

This study gathered data and opinions regarding the challenges and advantages of online learning, with a view to helping to develop information administrators can use when considering what steps should be taken if a district wishes to start an online program. There needs to be an understanding that, as Palloff and Pratt (2003) reported, learning-style research tells us that students learn best when they approach knowledge in ways they trust. In other words a “one size that fits all (p. 31)” approach will not work. Each district is different and their students have different needs. In addition, McLester (2011) suggested that starting small—perhaps with a summer school or evening pilot program—is the best way to begin a blended learning program. Another strategy for
those districts considering an online program is to communicate with districts that have online programs to seek their advice, and speaking with those that have had online programs in the past that may not have been successful. In both cases, a district can draw from another district’s experiences, both positive and negative, and seek their advice.

This study, however, can act as a building block in understanding the challenges and advantages of an online program, along with some of the strategies that are necessary to function in a successful online learning environment. Further research as suggested above should be directed at those secondary school programs that are successful, and case studies should follow that describe the steps and strategies that have helped those programs to be successful. Examples of successful programs include the blended programs at the secondary level, the “Dig-it” program helping underprivileged students in New York (Nolan, Preston, & Finkelstein, 2012), the San Francisco Flex Academy that uses coaches and advisory programs to help students prepare for a career or college (Ash, 2012), the high achieving Carpe Diem programs throughout the country (Schulte, 2011), the Boulder Universal Online Public School District that uses a combination of blended models to help keep on track the 150 high school students that they were losing a year (McLester, 2011), and the Washington Academy of Arts & Technology that helped educate the kids of those Hutterite family’s outside of Spokane, where the students were traditionally dropping out of school to work on their family farms (McLester, 2011). These programs can act as guides for those districts that are contemplating an online program in one form or another. Further research should be conducted in the following areas that can aid other districts considering a program or to improve the existing programs:
1. Successful strategies and/or pedagogy used by online teachers.

2. Strategies used to make students feel connected and able to succeed in an online learning environment (Moore, 2014).

3. Community development activities or conferences before a program begins to train and create a sense of community (amongst all parties involved). The example of this was the 4-day retreat that was used with the iMet program at Northern Illinois University that gave students the chance to meet others in their cohort, work in task-oriented collaborative groups, presented their work to their groups, and allowed them to learn how to use the technology in the program (Cowan, 2012).

4. Further research into both successful secondary online programs (and the steps they took to be successful), as well as research into those that were not successful and the reasons why they were not successful.

5. More in-depth research into what different districts consider to be online learning; iPad issued to students, credit recovery lab, virtual school with both synchronous and asynchronous modes of learning/delivery, hybrid course, and other types of online learning that takes place.

6. Professional development opportunities for teachers that can be led by a vendor and/or by properly trained district administration (administration would have to get additional training as many administrators may have little if any experience teaching online).

7. Research should be done at secondary and post-secondary levels to identify ways to parallel online learning with the needs of those using web-based
conferencing in the workplace. For example, Benson (2004) believed that computer-based training is as effective as, or more effective than lecture and a blend of the 2 approaches offers the most cognitive improvement. Or, Qantas Airlines in Australia that utilized online training to educate a large number of employees in a short time period (Misko et al., 2005). By utilizing experiences at both the secondary and post-secondary level students could possibly have the opportunity to contribute in various aspects of the use of web-conferencing in the workplace, from IT positions to curriculum development, or course instructor.

With the ever-changing educational landscape and a data-driven world, districts need to draw from the research conducted to decide if an online program is possible, and in what capacity the program will be most suitable for each district. Much can be learned from research into what online programs—both successful programs and those that have failed—have done in other districts/schools throughout the country. Furthermore, in order fully prepare both staff and students for an online program, education and briefings need to be conducted to what strategies will be used even before the program begins to educate all parties involved and to create a *sense of community* that can combat the *feeling of isolation*. Professional development programs should also be researched and created that not only prepare those that teach online, but those also administrators who will be expected to lead an online program. The reality is that many secondary teachers do not have any experience teaching online, and few secondary administrators have experience in the online world due to the fact that online learning is still a fairly new alternative to a traditional classroom.
Question 5 opens up another avenue or area of research to discover what each district considers online learning. In other words, many may feel that a credit recovery lab for students with limited supervision is the extent of online learning. If this is the case, with each perspective or view of online learning, then research should be done to identify advantages and challenges, along with the strategies and tools for a successful online program regardless of the “particular” online program that is being used. This type of study could identify the different online programs (as identified in question 5 on the survey, Appendix A), in this case at the secondary level, and create a comprehensive view of each scenario. Educators, learn from what others do. By studying successful programs to learn the keys to those successes, and by studying failed programs to learn what did not work, educators can create ever-more-effective online programs without having to re-invent the wheel.

Summary

The purpose of this study was to give secondary teachers the opportunity to provide their perceptions of online learning. By distributing a 10-question survey with both open- and close-ended questions, a profile was created of those that participated in the study and the participants had the chance to share their opinions on the advantages and challenges of online learning, along with what they felt were the tools and strategies necessary to operate a successful online program. The survey was distributed to three school districts in the state of Washington, and overall 710 secondary teachers received the survey, with 282 (40%) responding to at least part of the survey. The “close-ended” questions provided the data to create a demographic case study profile on those that participated, while the last two “open-ended” questions were used to provide the teachers
a platform to share their opinions on the advantages and challenges of online learning, along with the tools and strategies necessary to operate an online program. Participants identified lack of social interactions as the main challenge of online learning and the ability to collaborate with others as a key to program success. Other main challenges included the problem of a student who is not self-motivated and the reality that he or she could just disappear without doing any work, thus falling further behind. Other concerns were issues when using technology, including the student’s access to the technology, understanding how to use the technology, and what to trouble shoot technical problems. The advantages of online learning included; student flexibility to create their own schedule, and in some cases work at their own pace. In addition, online learning helped those students who struggle in a traditional classroom (for one reason or another) and those that may need the flexible accommodations such as students with health issues, those that have been bullied, professional athletes, those suffering anxiety, and those that live in rural areas. Once secondary teachers shared their views on challenges and advantages of online learning, they then had the opportunity to provide the strategies and tools they felt were necessary for an online program.

Three themes emerged from the data: communication, classroom setup, and “not sure.” Directly related to the challenges, the theme of communication was crucial to those that responded to the survey and this communication included; direct immediate feedback or communication between student and instructor, the ability to work and communicate with other students, communication with the parent and/or learning coach, and administration in helping the student become successful. Next, classroom setup had to do with the organization of the class including such items as a syllabus, pace chart, and
user-friendly technologies. The last category, “not sure,” was important because it conveyed that many secondary teachers had limited or no knowledge of factors that could be used to successfully operate an online program. Recommendations then, focused on the importance of educating all parties involved before they began an online program. This not only helps to reduce confusion later on, but also helps to build the sense of community that is so difficult to attain in a purely online venture. Further research should be devoted into both successful secondary online programs and those programs that failed for one reason or another as much can be learned from these case studies on what was done and what was not done. In other words, districts should devote time researching what other online programs have done to gain an understanding of best practices when considering an online learning program.


Pergamon: IAU Press.


olId=1&reportLevel=State&year=2013-14


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

Rule 17. *Regulations governing the approval of alternative schools, classes, or programs for expelled students*. Title 92, Nebraska Administrative Code, Chapter 17.


Thickstun, K. (2014). It's all your business think outside the home: Teaching options and opportunities online...And onward. *American Music Teacher, 42*-44


WAC 392-121-182 Definitions 3 d. Alternative learning experience requirements.


WAC 392-121-182 Definitions 3 f. Alternative learning experience requirements.


WAC 392-121-182 Definitions 3 l. Alternative learning experience requirements.


Appendices

Appendix A

Survey Instrument

1. Please enter your gender
   ◦ Male
   ◦ Female

2. How many years have you been in education?
   ◦ 0-5 years
   ◦ 6-10 years
   ◦ 11-19 years
   ◦ 20 years or more

3. What grade level(s) do you teach?
   ◦ MS 6th-8th
   ◦ HS 9th-12th
   ◦ Combination of both HS and MS

4. What subject(s) do you teach?
   ◦ PE
   ◦ Math
   ◦ English/Language Arts
   ◦ Social Studies
   ◦ Electives
   ◦ A combination of two or more

5. In what format is online learning currently being used in your school and/or district?
   ◦ iPad issued to students
   ◦ Credit recovery labs for students with limited supervision
   ◦ Virtual school with both synchronous and asynchronous modes of learning/delivery
   ◦ Hybrid course; with a combination of online and traditional face-to-face
   ◦ Other

6. Do you have any experience teaching online? I you answered “no” skip to question #8
   ◦ Yes
   ◦ No
7. If you have experience teaching online, how many years have you taught online?
   - 0-2 years
   - 3-5 years
   - 6-10 years
   - 10 + years

8. Do you think a student that primarily takes online courses and graduates, can be prepared just as much as a student that graduates from a traditional classroom?
   - Strongly agree
   - Agree
   - Neutral
   - Disagree
   - Strongly disagree

9. In your opinion, what are the advantages and challenges for students at the secondary level learning online?

10. In your opinion, what does online learning look like, in other words, what tools and strategies are used to make it successful?
Appendix B

Approval Letters

Evergreen Public Schools

March 17, 2015

To the CU IRB:

We are familiar with Chris Brown's research project entitled [XXXXX]. I understand the Evergreen Public Schools' involvement to be the distribution of participation in a staff survey on their perceptions relative to on-line learning.

We understand that this research will be carried out following sound ethical principles, that participant involvement in this research study is strictly voluntary, and that confidentiality of participants' research data is ensured, as described in the protocol.

Therefore, as a representative of Evergreen Public Schools, I agree that Chris Brown's research project may be conducted at our agency/organization.

John Steach
Deputy Superintendent
Evergreen Public Schools
March 17, 2015

To the CU IRB:

We are familiar with Chris Brown’s research project entitled Teacher’s Perceptions of Online Learning at the Secondary Level. I understand Washougal School District’s involvement to be secondary teachers from Washougal High School, Excelsior High School, Canyon Creek Middle School and Jemtegaard Middle School answering questions in the survey entitled “Final Online Learning Educator’s Survey.”

We understand that this research will be carried out following sound ethical principles, that participant involvement in this research study is strictly voluntary, and that confidentiality of participants’ research data is ensured, as described in the protocol.

The Washougal High School, Excelsior High School, Canyon Creek Middle School and Jemtegaard Middle School are compliant with the Pupil Rights Amendment.

Therefore, as a representative of Washougal School District I agree that Chris Brown’s research project may be conducted at our agency/organization.

Sincerely,

[Signature]

David Tudor
Curriculum Director
Washougal School District
Appendix C

Creighton University IRB approval

Creighton University Institutional Review Board
2500 California Plaza, Omaha, NE 68178 • Phone: 402-280-2126 • Fax: 402-280-4766
Campus Address: Criss I, Room 104
Email: irb@creighton.edu

Application for
Determination of Exempt Status (per 45CFR46.101 (b) 2/3): Observation, Survey, Interview

Contact and Study Information

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<tr>
<th>IRBNet Project Number:</th>
<th>736950-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Title:</td>
<td>Teachers’ Perceptions of Online Learning at the Secondary level</td>
</tr>
<tr>
<td>Principal Investigator (include credentials):</td>
<td>Christopher L. Brown</td>
</tr>
</tbody>
</table>

Check type(s) of measures to be used:

☐ Passive Observation of Public Behavior
☒ Survey
☐ Interview
☐ Other (Describe) ______

Will information be recorded anonymously (i.e., no subject identifiers or codes that can be used to re-identify subjects will be recorded)? No ☐ Yes☒.

Will “sensitive information” be recorded that could damage subjects’ reputation, employability, or financial standing, or place them at risk for criminal or civil liability? No ☐ Yes ☒
If yes, explain:

Will any information from this project be submitted to the FDA? No ☐ Yes ☒ If Yes, STOP and contact the IRB at irb@creighton.edu if you have questions.
Subjects

1. Who will be enrolled? Secondary teachers from 3 school districts

2. How many subjects will be enrolled? 1,000 +

3. Will subjects under 19 years of age be studied? No ☒ Yes ☐

   If yes, to what extent will researchers interact with subjects?

   **Note:** This exemption is limited to individuals 19 years of age or older. Subjects under 19 can be passively observed in public places, but only so long as researchers do not participate in the activities being observed.

4. If children (under age 19) will be observed, complete the following section (a through f):

   a. Provide a rationale for the specific age ranges of children to be included:

   b. Describe the expertise of the investigative team in dealing with children of that age range:

   c. Describe the adequacy of the research facilities to accommodate children of that age range:

   d. Will sufficient numbers of children be studied to answer the scientific questions?

      No ☐ Yes ☐

      Please elaborate.

   e. Will the investigators interact directly with the child subject? No ☐ Yes ☐

Recruitment
1. How will potential subjects be identified and how and where will they be approached for participation? **Survey will be sent via email**

2. Describe the recruitment materials (ads, letters, recruitment script, e-mails etc.) to be used, if applicable, and attach a copy to this application: **Again the survey will be circulated via Superintendent to secondary teachers**

**Methods**

1. How will information be obtained (e.g., face to face, phone, mail, Internet)? **Survey Monkey®®**

2. How will anonymity of data be maintained? **It will be collected through Survey Monkey®® with no names just completed surveys.** (If using a web survey, IP tracking must be disabled when preparing the survey.)

3. Who will collect data? **Christopher L. Brown directly to Survey Monkey®®**

4. How often will subjects be contacted, and why? **The subjects will only be contacted twice once to introduce the survey and a second time to follow up with the survey on the date that it will be closing!**

5. How many attempts will be made to contact? (A maximum of 3 times will be allowed): **2**

6. If subjects will be paid or otherwise compensated (e.g., extra credit), indicate how much they will receive, and how they will be compensated: **N/A**

7. If recruiting students or employees, how will coercion of the participant be minimized? **N/A** (not enrolling students or employees)

Submit your study design/protocol OR complete the following section

1. Background and significance: **The research focus on online education has primarily been in higher education with studies on the perspectives of faculty members, students, and administrators. At the secondary level, the research focus has been on the “intrinsic motivation” of students in independent learning environments with high dropout rates (Journell, 2010) yet there is little information on secondary teachers’ perceptions of online learning.**

1. Rationale behind the proposed research and potential benefits to participants and/or society: **The study can provide information to districts considering online programs both the challenges, advantages, and practices that can make a successful online program.**
2. Specific aims (research objectives): The aim of the study is to make recommendations to secondary school leaders on best practices for online learning.

3. Specify objectives and hypotheses to be tested in the research project: The purpose of this qualitative study is to describe secondary teachers’ perceptions of online learning in Washington.

4. Statistical analysis: Qualitative, case study. Written survey with demographic and open-ended questions. Once the questions are collected a demographic depiction of those surveyed will be created (gender, number of years teaching, areas of expertise, if they have online experience or not, etc...). In addition, the two “open-ended” questions will be collected and various themes will be identified based on the responses and double checked for accuracy by my dissertation committee members.

5. Potential benefits:
   a. Potential benefits to participating individuals: Information concerning online learning, and those districts with online schools or considering them; the study can provide information both challenges and advantages of online learning and some suggestions for successful online programs.
   b. Potential benefits to society: The same is true for this question, this can be a guide to those considering an online program at the secondary level or grades 6th-12th.

6. References:
   DOI:10.12738/ESTP.2013.3.1580

Additional Information, Clarification, or Comments for the IRB Reviewer: n/a

Submission Requirements

☑ Completed Signed Application
Questionnaires/surveys

Interview questions

Advertising materials:

Other participant handouts:

Other (explain):

If a project is conducted off-campus, include a letter of agreement from the site where the research is being conducted

If using Alegent Creighton Health/Clinics this IRB application with all packet materials have been sent to Research@alegent.org

Principal Investigator’s Assurance

The following signature certifies that the Principal Investigator (PI) understands and accepts the following obligations to protect the rights of research subjects. It is the PI’s responsibility to:

a. Ensure that the submitted protocol provides a complete description of the proposed research (contains adequate information regarding subjects’ rights and welfare and ensures that all applicable laws and regulations will be followed).

b. Ensure that, throughout the course of the study, all research personnel involved in the project conform to the applicable federal regulations and Creighton University IRB policies when conducting the research.

c. Secure all research-related records on file and acknowledge that the IRB may review these records at any time.

d. Promptly report any proposed changes to the research project (e.g., amendments, modifications, updates) to the IRB. Changes shall not be initiated until such changes have been reviewed and approved by the IRB, except to eliminate immediate hazards to subjects.

e. Inform the IRB immediately of any information that may negatively influence the risk/benefit ratio for subjects enrolled in the study.

I understand that failure to comply with applicable federal regulations and Creighton University IRB policies and procedures could result in suspension or termination of the research project.

[Chris L. Brown]
Appendix D

CITI Social Behavioral Training Certification

Chris Brown
HAS SUCCESSFULLY COMPLETED ALL OF THE REQUIREMENTS FOR
IRB SOCIAL BEHAVIORAL TRAINING CERTIFICATION
IN THE PROTECTION OF HUMANS SUBJECTS IN RESEARCH
AS OUTLINED IN THE CREIGHTON UNIVERSITY IRB’S POLICIES AND PROCEDURES
http://www.creighton.edu/researchcompliance/institutionalreviewboards/policiesandprocedures/index.php

Your IRB Training Certification is valid until: JANUARY 15, 2018

IRB certification expires three (3) year from the date the CITI Basic or Refresher course is completed.
Three (3) months prior to expiration, you may renew your training certification by completing the CITI Refresher course.

Mary C. Ritterbush
Mary C. Ritterbush
Research and Compliance Education Coordinator
Creighton University
Criss I, Room 123
2500 California Plaza
Omaha, NE 68178
402-280-2680 (office)
402-740-0341 (cell)
Email to the District Leaders to the staff:

My name is Chris Brown and I am a doctorate student at Creighton University, researching secondary teachers’ perceptions and use of online learning. I have attached a link for a short 10 question survey that should take only 5-7 minutes. My request is for you to send the link along with a short note (written below) to your faculty or faculty members throughout the district. The survey will run from Monday, April 13 to Friday, May 1. Please note all responses will be confidential. Thank you in advance for helping with this research.
Appendix F

Staff email and directions for the survey

Directions for the survey:

Thank you for participating in the research study from Creighton University’s graduate studies program. The purpose of this qualitative study is to describe secondary teachers’ perceptions of online learning in Washington. As such, the survey will identify the demographics of those teachers being surveyed, create themes based on the responses of those teacher’s perceptions, identify the challenges and advantages of online learning, and strategies being utilized to make online learning more successful. The aim is to create recommendations for successful online learning at the secondary level. All responses will be kept confidential.

Please complete the survey by Friday, May 1st.

Email to the Faculty members:

Hello Colleagues,

Please find the URL link to an important survey regarding online learning at the secondary level. The survey is being conducted by a graduate student at Creighton University for the purpose of better understanding teacher’s views on online learning. All responses will be confidential! The survey will need to be completed by Friday, May 8th. Thank you in advance for your participation.
Appendix G

Follow up email to get more responses

Dear Colleagues,

Thank you to those who filled out the survey on online learning for me when we sent it out recently. I am following up to see if we can get more responses to the survey and your opinions concerning online learning. As of Friday, May 8th I will discontinue the survey, I just hoping to finish strong and get at least 50 more responses. Again, thank you for your time!

Sincerely,

Chris Brown
Appendix H

Principal’s email to confirm they sent out the survey to their staff

MJ
Thu 4/16/2015 10:20 AM
Inbox
To: Christopher Brown;
You replied on 4/16/2015 1:09 PM.
Hello-
Just wanted to report that the survey was sent to approximately 96 teachers at our school.

Thank You,
360-604-6140

Follow Mountain View HS @:
Twitter - @ViewCrew360
Like Mountain View High School on Facebook
https://www.facebook.com/GoThunder.org
Instagram - @ViewCrew360
School Website: www.GoThunder.org

You replied on 4/21/2015 10:57 AM.
Good afternoon, Chris:

Eighty Shahala MS certificated secondary teachers were recipients of the link to your survey. Best of luck and let me know if we can be of further assistance.

Regards,
Gregg Brown
Principal
Shahala Middle School
360-604-3800
gregg.brown@evergreenps.org
Appendix I

IRB Approval Letter

Social Behavioral Institutional Review Board

2500 California Plaza • Omaha, Nebraska 68178
phone: 402.280.2126 • fax: 402.280.4766 • email: irb@creighton.edu

DATE: April 9, 2015

TO: Chris Brown
FROM: Creighton University IRB-02 Social Behavioral

PROJECT TITLE: [733522-1] Chapters 1-3 Dissertation: Teachers' Perceptions of Online learning
REFERENCE #: Exempt
2/3 SUBMISSION TYPE: New
Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: April 9, 2015

REVIEW CATEGORY: Exemption category # 2/3

Thank you for submitting the above mentioned proposal to the Institutional Review Board office for review. An IRB administer has determined this project is exempt from Federal Policy for Protection of
Human Subjects as per 45CFR46.101 (b) 2. The project and exemption is approved is for a 3 year period. The following documents have been reviewed as part of this submission:

- Application Form - 114.1B Application for Determination of Exempt Status Surveys-interview- observation.doc (UPDATED: 04/9/2015)
- Creighton - IRB Application Form - Creighton - IRB Application Form (UPDATED: 03/24/2015)
- Letter - SKMBT_C36015031714410.pdf (UPDATED: 03/24/2015)
- Letter - 0809_001.pdf (UPDATED: 03/24/2015)
- Letter - Directions for the survey and emails to those that are receiving the survey (for the dissertation study) (UPDATED: 03/16/2015)
- Other - Determination of Exempt Status (per 45CFR46.101 (b) 2/3): Observation, Survey, Interview (UPDATED: 04/8/2015)
- Other - Brown_Week 8_Perceptions of Onlline learning.docx (UPDATED: 03/16/2015)
- Questionnaire/Survey - Survey Link.docx (UPDATED: 03/24/2015)

Continued approval is conditional upon your compliance with the following requirements:

1. Compliance with the Creighton University IRB policies and procedures
2. Problems must be reported using the Reporting Form for Reportable New Information. Problems requiring report can be found in the IRB Policy 134 “Reportable New Information”
3. All protocol amendments and changes to approved research must be submitted to the IRB and not be implemented until approved by the IRB. Please use the modification form when submitting changes to protocol or consent documents.
4. You are required to submit a renewal/termination prior to this date. If you wish to continue the project, the renewal must be in the IRB office on week prior to the expiration date.

If you have any questions, please contact Christine Scheuring at 402-280-3364 or christinescheuring@creighton.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Creighton University IRB-02 Social Behavioral’s records.