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Perceptions of Urban High School Teachers Transitioning From Traditional Instruction to Blended Learning

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PERCEPTIONS OF URBAN HIGH SCHOOL TEACHERS TRANSITIONING FROM
TRADITIONAL INSTRUCTION TO BLENDED LEARNING

A Dissertation
Presented to
The Faculty of the Educational Leadership Doctoral Program
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education
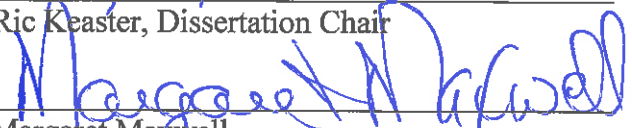
By
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December 2014

PERCEPTIONS OF URBAN HIGH SCHOOL TEACHERS TRANSITIONING FROM
TRADITIONAL INSTRUCTION TO BLENDED LEARNING

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I dedicate this dissertation to the hard working teachers of the urban school districts in the nation. Their task is enormous; yet, they persevere in hopes of providing a better future for their students.

ACKNOWLEDGEMENTS

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PERCEPTIONS OF URBAN HIGH SCHOOL TEACHERS TRANSITIONING FROM TRADITIONAL INSTRUCTION TO BLENDED LEARNING

Michael Hamilton   December 2014   190 Pages

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Educational Leadership Doctoral Program   Western Kentucky University

Increasing demands for technology integration at the K-12 level have led school districts to explore blended learning as an option for sustaining productive instructional strategies while increasing technology integration in the classroom. Furthermore, Disruptive Innovation Theory (Christensen, 1997) offers insights as to the potential impact of blended learning on the field of education. This phenomenological study attempted to capture the lived experiences of urban high school teachers who were transitioning to a blended learning instructional strategy. In addition, this study utilized the Stages of Concern (SoC) component of the Concerns Based Adoption Model (CBAM) to isolate the phenomenon and provide additional insights regarding the implementation strategy used by the district. Ten participants responded to 12 questions in a virtual focus group. A content analysis of the collected data was conducted to address the SoC, as well as provide information regarding teacher perceptions of the implementation process. Phenomenological analysis was conducted using the modified Stevicki-Coloaizzi-Keen Method (Creswell, 2013); and a textural narrative, structural narrative, and a narrative explaining the essence of the phenomenon were included in the results.

The findings include concerns about student access and a need for blended learning examples. Recommendations include a need for increased support regarding student access and targeting specific training needs for teachers. Conclusions indicate that

consideration of the needs of teachers while constructing implementation plans can be

beneficial. Future research should explore concerns of students, facilitators, and

administrators regarding blended learning.

CHAPTER I: STATEMENT OF THE PROBLEM

Introduction

The U.S. Department of Education (US DoED) in 2010 presented its National

Education Technology Plan titled *Transforming American Education: Learning Powered

by Technology*. According to the report:

> Education is the key to America's economic growth and prosperity and our ability
>
> to compete in the global economy. It is the path to good jobs and higher earning
>
> power for Americans. It is necessary for our democracy to work. It fosters the
>
> cross-border, cross-cultural collaboration, required to solve the most challenging
>
> problems of our time. (US DoED, 2010, p. 7)

In order to compete in the global economy, the US DoED acknowledges that change is

necessary. Furthermore, the US DoED recognizes the changing dynamics of society, and

more importantly, one of the most dominating instigators of change: technology. The US

DoED (2010) reported:

> The plan recognizes that technology is at the core of virtually every aspect of our
>
> daily lives and work, and we must leverage it to provide engaging and powerful
>
> learning experiences and content, as well as resources and assessments that
>
> measure student achievement in more complete, authentic, and meaningful ways.
>
> (p. 7)

Technology alone cannot transform education. The task of infusing technology so

dramatically will belong to educators. This technology plan acknowledged the

importance of the educators who must continue to shoulder this responsibility. The US

DoED (2010) stated, "Professional educators are a critical component of transforming our

education systems, and therefore strengthening and elevating the teaching profession is as important as effective teaching and accountability" (p. 10).

According to the US DoED (2010), the technology plan outlined five key factors for improving education through technology in order to meet global demands:

1. All learners will have engaging and empowering learning experiences both in and out of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally networked society.

2. Our education system at all levels will leverage the power of technology to measure what matters and use assessment data for continuous improvement.

3. Professional educators will be supported individually and in teams by technology that connects them to data, content, resources, expertise, and learning experiences that enable and inspire more effective teaching for all learners.

4. All students and educators will have access to a comprehensive infrastructure for learning when and where they need it.

5. Our education system at all levels will redesign processes and structures to take advantage of the power of technology to improve learning outcomes while making more efficient use of time, money, and staff. (pp. 14-18)

This plan recognizes and highlights the importance of change in educational reform. In order to absorb the benefits of such an ambitious restructuring of teaching and learning, American education must do more than brace for change.

The remainder of this chapter will present background information on globalization and technology, as well as provide an explanation of the problem faced by

education as leaders attempt to combine these essential elements. Furthermore, this chapter will explain the nature of this study as well as its significance and limitations.

Globalization and Education

Friedman (2007) presented an interesting and relevant treatise on globalization by comparing the effects of 21st Century globalization to a massive flattening of the world. The end of the Cold War created conditions for a new market economy to emerge, an economy in which all countries are invited to participate and thrive. However, these conditions exclude those countries that do not possess the knowledge and capacity for survival. In reference to the United States' means of survival, Friedman suggested the need for a "Great Society that commits our government to building the infrastructure, safety nets, and institutions that will help every American become more employable in an age where no one can be guaranteed lifetime employment" (p. 376). Education remains a key concern in the plight to keep Americans employable. Friedman and Mandelbaum (2011) insisted that globalization presents four challenges to the United States. Among them, adapting to globalization and integrating information technology (IT) have direct implications on the direction of educational reform.

According to Schleicher and Stewart (2008), the Organization for Economic Cooperation and Development (OECD) consists of 30 member countries and conducts regular assessments allowing countries to evaluate their education systems versus other nations. In the 2006 iteration of the Programme for International Student Assessment (PISA), the United States performed below average in mathematics and science. Schleicher and Stewart explained, "PISA tests focus on the key subject areas of reading, mathematics, and science. They seek to assess not merely whether students can reproduce

what they have learned, but also how well they can apply this learning to new settings"

(p. 47). On the 2009 iteration of the PISA test, 15-year-olds in the United States ranked

25th in mathematics, 14th in reading, and 17th in science among the 34 OECD

participating countries. This translates to below average performance in mathematics, and

average performance in reading and science (OECD, 2011). The United States'

performance has only slightly improved over the course of the last decade.

Globalization in the 21st Century may prove to become the great equalizer among

competing economies in the world. If this is not considered in the development of

educational outcomes, the United States may continue to decline educationally and

economically. According to the OECD (2011) report:

In this globalised world, people compete for jobs not just locally but

internationally. The integrated worldwide labour market means that highly-paid

workers in wealthier countries are competing directly with people with much the

same skills but who demand less compensation in lower-wage countries. The

same is true for people with low skills. The competition among countries now

revolves around human capital and the comparative advantage in knowledge. (p.

14)

The demands of globalization call for a higher standard among secondary and

postsecondary graduates. Educational initiatives must focus on the development of

employable 21st Century citizens (US DoED, 2010). Knowing is not enough; the

stimulus for change is present. In order to move in the right direction, education must, not

only paint a picture of success, but also must incorporate the tools available in the 21st

Century that will help ensure success.

Technology

Technology is already affecting the lives of students. Most of the students born in the digital age cannot escape the grasp of technology. According to the US DoED (2010):

Many students' lives today are filled with technology that gives them mobile access to information and resources 24/7, enables them to create multimedia content and share it with the world, and allows them to participate in online social networks where people from all over the world share ideas, collaborate, and learn new things. Outside school, students are free to pursue their passions in their own way and at their own pace. The opportunities are limitless, borderless, and instantaneous. (p. 8)

It is evident that technology has created a learning environment that is vastly different from the learning experiences shared by most teachers and administrators years ago.

According to Watson (2010), technology is transforming society at an alarming rate, and its impact on education is substantial. Watson suggested that the massive increase in educational technology has transformed some middle school classrooms into "NASA mission control" (p. 35). While this may be seen as a positive for students, some things need to be considered. Watson suggested that technology is altering the cognitive development of children. This is the result of the widespread use and availability of technology. The presence of technology, however, can be distracting to students. According to Watson, the key is the appropriate employment of educational technology.

Changes already have occurred to nurture the relationship between education and technology. The Partnership for 21st Century Skills (P21) (2009) insisted, "Students must also learn the essential skills for success in today's world, such as critical thinking,

problem solving, communication and collaboration" (p. 1). The P21 framework combines these skills with information, media, technology, and life and career skills and is designed to prepare students to meet the demands of a globalized workforce in a technology-driven society.

In addition to new frameworks for the incorporation of technology into the classroom, older models of teaching and learning are being revised to support technology integration. For example, Churches (2013) created an updated version of Bloom's Taxonomy that blends key technological skills with the existing levels of Bloom's Taxonomy. The modern classroom will be unable to escape the grasp of technological innovation. Teachers must learn to embrace the classroom transformations fueled by technology.

The Problem Defined

Kaufman, Herman, and Watters (2002) suggested the importance of using outside-in planning. An inside-out perspective causes society to absorb the consequences of educational results; however, an outside-in perspective allows the demands of society to guide the creation of educational programs. Kaufman et al. (2002) stated:

> Outside-in planning is proactive. It is a paradigm — or frame of reference — that constructively challenges the status quo (not just criticizes or derides it) while identifying possible new opportunities, purposes, and payoffs. The perspective is the rationale for most professionals who seek positive change and growth, not just damage control methods or ways to increase the efficiency of current operations. (p. 32)

The demands of the globalized economy require better training and skills among graduates. It is important for educational planners to recognize the demands of society while preparing educational strategies.

In order to move in the direction of preparing graduates to help the U.S. succeed in the global economy, it is apparent that education will experience much change in the foreseeable future. Many of these changes will occur under less than desirable conditions. According to the US DoED (2010):

These are aggressive goals and achieving them is a sizable challenge. Add to the challenge the projections of most states and the federal government of reduced revenues for the foreseeable future, and it is clear we need cost-effective and cost-saving strategies that improve learning outcomes and graduation rates for millions of Americans. (p. 7)

The critical components identified by the US DoED are "cost-effective" and "cost-saving." The report stated:

Specifically, we must embrace innovation, prompt implementation, regular evaluation, and continuous improvement. The programs and projects that work must be brought to scale so every school has the opportunity to take advantage of their success. Our regulations, policies, actions, must be strategic and coherent. (p. 7)

At this point, the demands of globalization and technology collide with educational reform. The demands of globalization have instigated reforms in education. At the request of the US DoED, technology is becoming the great facilitator of reforms. Innovation can provide direction, but the teacher is the critical component. The teacher

must embrace the increasing number of technological innovations, as well as the process of change, in order to improve education.

21st Century Skills

P21 (2009) claims that today's students will be immersed in a technology-driven environment. P21 developed a framework to reflect the skills required to ensure success among graduates. The framework includes four major components: core subjects and 21st Century themes; learning and innovation skills; information, media, and technology skills; and life and career skills.

According to the P21 (2009) framework, students should be able to perform each of the following functions with respect to technology:

- Use technology as a tool to research, organize, evaluate and communicate information.

- Use digital technologies (computers, PDAs, media players, GPS, etc.), communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy.

- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies. (pp. 5-6)

Ledward and Hirata (2011) reported that a review of 21st Century Skills literature produced four major claims:

- The world is fundamentally different. Technology has contributed to the transformation of teaching and learning.

- 21st Century Skills combines "core subject mastery and contemporary, interdisciplinary themes."

- Teacher competency and learning environments support outcomes in a variety of instructional strategies.

- Despite a relatively small body of literature, positive learner outcomes have been recorded. (p. 1)

Ledward and Hirata suggested that the global economy has created a situation in which education should be upgraded to meet the new demands. One approach to this proposed improvement is the focus on personalized learning.

Personalized Learning

Patrick, Kennedy, and Powell (2013) claimed that the majority of K-12 education programs maintain a similar feel, leaving less room for individualization. The need for individualized programs, or personalized learning, is critical. Personalized learning allows learners to "have agency to set their own goals for learning, create a reflective process during their journey to attain those goals, and be flexible enough to take their learning outside the confines of the traditional classroom" (p. 4). Personalized learning is very similar to differentiation. Each student needs the appropriate amount of attention focused on areas in need of refinement. Demski (2012) reported technology to be central to personalized learning. Aviles and Eastman (2012) claimed that technology can meet the needs of millennials, such as immediate feedback, affiliation, personalized learning, and low ambiguity. The outcomes of personalized learning can be enhanced via technology.

According to Patrick et al. (2013), personalized learning is encouraging students to:

> …develop clear goals and expectations for achievement and support them to make good decisions in a challenging and rigorous learning environment. It's a space where teachers are allowed the time they need to work with students; design instruction that is rigorous, flexible, and adaptable; and focus on critical thinking and metacognitive practices to develop stronger, deeper, independent learning. (p. 6)

Furthermore, the concept of personalized learning is very conducive to blended learning. In fact, Patrick et al. claimed that "Blended learning is about the transformation of the *instructional design* toward personalized learning with teachers and students harnessing advanced technological tools to accomplish the shift toward personalization by design" (p. 9, original in italics).

The Innovation

The first decade of the 21st Century saw innovative changes in education, most notably regarding online education. Online learning exists among several categorical distinctions, the most important being online courses and blended learning courses. According to Allen and Seaman (2012), courses are deemed online when at least 80% of the content is delivered online; blended learning consists of content between 30% and 79% delivered online. Web-facilitated instruction allows for between 1% and 29% of the content to be delivered online. Traditional or face-to-face instruction refers to courses taught without an established online component.

Allen and Seaman (2013) reported that the Babson Survey Research Group conducted a study in 2012 and analyzed the opinions of chief academic officers from over 2,800 colleges and universities. Results indicated that a majority of the chief academic officers believed online learning to be crucial to their institution's educational strategy. According to the report, 6.7 million students are taking at least one online course. A majority of the participants believe online learning outcomes to be the same or superior to traditional courses. One significant drawback of online education is that the perceived level of self discipline among students suggests they lack sufficient skills necessary for success in the online environment.

A 2007 study was conducted by the Babson Survey Research Group focusing specifically on blended learning. Key areas of the study pertained to the relationship between blended learning and online learning. Overall, 2,251 participants from public degree-granting institutions responded to the survey. Results indicated that 55% of all institutions offered at least one blended learning course, with public institutions representing the largest category. Key findings included blending learning is no more prevalent than fully online course offerings, and blended learning is considered no more promising than fully online courses. However, enough blended learning courses are offered to substantiate the strategy as a stand-alone approach, rather than a stepping stone to more fully online course offerings (Allen, Seaman, & Garrett, 2007).

K-12 Online Learning. The growth of online learning at the postsecondary level has fueled an expansion of online learning into the K-12 classroom. Educational researchers are attempting to uncover its educational potential, as more districts are implementing online learning in K-12 schools. Patrick and Powell (2009) reported the

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existence of rigorous studies that examine the effectiveness of K-12 online learning. According to Means, Toyama, Murphy, Bakia, and Jones (2010):

> Considering the extent to which secondary schools are using online courses and the rapid growth of online instruction in K-12 education as a whole…educators making decisions about online learning need rigorous research examining the effectiveness of online learning for different types of students and subject matter as well as studies of the relative effectiveness of different online learning practices. (p. 54)

Though virtual schools, credit recovery programs, and various other fully online programs are useful at the K-12 level, blended learning is particularly important to K-12 education. So and Bonk (2010) noted that much of the learning in the future will be considered blended. Picciano and Seaman (2007) claimed that blended learning is more conducive to the K-12 level because it allows districts to provide ongoing support to both teachers and students as they learn how to use the new technology. Online environments lack the face-to-face component, making it more difficult to provide support. Blended learning will continue to trend at the K-12 level, particularly the secondary level. However, a critical challenge to the development of blending learning practices lies in the understanding of the role of teachers, as well as the implementation strategy.

The Teacher

So and Bonk (2010) claimed that blended learning is "complex," (p. 197) and training is needed to support the implementation of the practice. Blended learning courses require more time for preparation and facilitation than traditional courses (Johnson, 2002; King, 2002; Willett, 2002). Several studies identify the importance of course design and

interactivity in successful online learning (Cox, Carr, & Hall, 2004; Hopper, 2003; Stein, 2004). Considering the important role of teachers in successful blended learning, it is necessary to develop strategies to support their needs and concerns as they transition to the blended learning environment.

Teachers are a critical component in the implementation of blended learning. Gerbic (2011) reported that many blended learning studies focus on learning outcomes and student perspectives; however, the teachers' perspectives are underrepresented. The transition from traditional classroom instruction to blended learning is difficult, and the implementation strategy used to facilitate the transition must focus on the needs of the teacher. The Concerns Based Adoption Model (CBAM) addresses the "emerging and evolving needs" (Hall & Hord, 1987, p. 17) of teachers and considers the "personal side of change" (Hall & Hord, 2011, p. 265). The personal side of change is complex; thus, change cannot be measured entirely by quantitative procedures. The transition to blended learning is a significant process that has meaning and should be explored in order to understand its many dimensions. For the sake of improving educational outcomes and sustainability, an in-depth, teacher-focused study is needed to understand the meaning of this transition.

The Process of Change

"Change constitutes an integral part of the educational landscape" (Evans, Thornton, & Usinger, 2012, p. 154). According to Marzano, Waters, and McNulty (2005), "One of the constants within K-12 education is that someone is always trying to change it — someone is always proposing a new program or a new practice. Many of

these programs and practices are well thought-out, well articulated, and even well researched. Yet many, maybe even most, educational innovations are short-lived" (p. 65).

Folaron (2005) found that individuals make changes when necessary; however, necessary changes are not guaranteed to last. Lack of motivation is only one reason that change is unsuccessful. The strategies used to support the implementation of new technology need to focus on the teachers' needs and concerns. Folaron stated:

> The importance of the human side of change cannot be underestimated. If the human element is neglected or left to chance, the improved process of implementation can be prolonged, the change effort can be more frustrating, the resulting benefits can be diminished, and the entire improvement can be short-lived. (p. 40)

Folaron insisted that change facilitators should identify potential resistance early and ensure motivation is incorporated into every implementation strategy. Folaron suggested that an examination of the perspective of the individual who is experiencing change can provide insights to improve the process.

Purpose of the Study

An understanding of the role of the teacher who is transitioning from traditional instruction to blended learning is critical to the development of successful blended learning implementation strategies, as well as improving blended learning teaching strategies. The purpose of this study is to isolate the lived experience of high school teachers within a blended learning implementation process. As teachers transition from traditional instruction to blended learning, their perceptions of the innovation, as well as the implementation strategy, are critical to the field. This study focuses specifically on

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these perceptions, and the findings will serve to strengthen future implementation strategies and efforts.

This phenomenological study explores the transition from traditional instruction to blended learning as experienced by a group of urban high school teachers. The school district's vision stated that all students will be college ready upon graduation. In addition, the students are required to take at least one online class in high school. The school district purchased the Blackboard course management system in accordance with the district vision's college readiness component. The high school teachers were selected from a purposive sample of blended learning instructors. These teachers participated in an initiative to provide blended learning courses to Advanced Placement (AP) and International Baccalaureate (IB) students during the 2012-2013 school year. This initiative was a district-wide pilot taking place in successive years. No literature was available on the implementation of blended learning in the participating school district at the onset of this study.

Hall and Hord's (2011) stages of concern (SoC) dimension from the Concerns Based Adoption Model (CBAM) served as a framework for developing the interview schedule. The interview items focused on the concerns of teachers transitioning from traditional instruction to a blended learning instructional strategy. Six of the seven SoC constructs were used to construct 12 interview items. The use of open-ended questions relating to the CBAM was designed to elicit qualitative responses that also could be used to create a narrative of the means by which each teacher experienced the phenomenon. The second level phenomenological treatment of the responses provided a unique perspective on the CBAM. Utilizing the SoC dimension and a phenomenological

methodology, this study explores the concerns of teachers on a much deeper level than Hall and Hord's prescribed questionnaire or one-legged interview format.

According to Moustakas (1994), in order to engage in phenomenological study, it is necessary to bracket the phenomenon. The CBAM did not serve as a means of understanding the phenomenon; rather, the SoC dimension provided a framework for isolating the phenomenon from the complexity of the teaching profession. The results provided a description of each teacher's experience of the phenomenon, as well as insights as to the concerns associated with the transition to blended learning.

In addition, this study utilized a virtual focus group (VFG). Participants completed a series of three independent focus group interviews using a discussion board. However, participants were able to view the responses of others as they completed each item. Although participants were able to complete the focus group interviews at their leisure, the format mimicked a focus group discussion because of the visibility and interactivity provided by using the Internet. Participants were encouraged to interact by commenting on responses of fellow participants.

Blending phenomenological research methods with a VFG provided a unique set of data relevant to the topic. The outcomes of this study provide a thoughtful understanding of the needs of high school teachers transitioning to blended learning instruction. This study is guided by the following central research question: How do high school teachers perceive the transition between traditional instruction and blended learning?

Research Questions

The following research questions guide this phenomenological study:

1. What concerns exist among teachers in the district who are transitioning to blended learning instruction?

2. What do they perceive as barriers to the implementation of blended learning as an instructional approach?

3. What do they perceive as facilitators to the implementation of blended learning as an instructional approach?

Significance of the Study

This study contributes to two bodies of literature: organizational change and blended learning. Specifically, the study provides insights for change facilitators seeking more effective implementation strategies. According to Means et al. (2010), a significant lack of rigorous online learning research is available for policymakers to consider; thus, more research should be conducted to examine the many facets of the practice. Furthermore, qualitative research is necessary to triangulate the findings of similar quantitative studies. This study will provide depth to both bodies of literature.

First, teacher insights are critical to the study of educational change. The SoC dimension from the CBAM will be used to define the parameters of the experience. The findings from this study will enhance the body of knowledge regarding SoC. The phenomenological approach will enrich the account of the teachers' concerns, producing implications for the improvement of teacher-focused change strategies.

Second, this is the first of a succession of blended learning initiatives in this inner city school district. This study captured teachers' experiences from an entire school year. The essence of the experience will be invaluable to the strengthening of teacher support

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strategies. Furthermore, the identification of facilitators and barriers will enhance the structure of future implementation strategies.

Finally, this study will add to the body of literature for web-facilitated research. The use of a VFG is appropriate for this study; however, the infancy of the technique adds to the study's significance. Data collection and analysis procedures will enhance the understanding of the technique and produce guidelines for future use.

Assumptions and Limitations

This is a phenomenological study of the lived experiences of high school teachers transitioning from traditional instruction to blended learning. Several assumptions exist. First, the teachers are assumed to be at a similar level of expertise regarding the use of the course management system. In addition, the training issued as part of the blended learning initiative is assumed to be sufficient for successful implementation.

Four inherent limitations exist in this study. First, data analysis will be conducted by the researcher using a derivation of the Stevick-Colaizzi-Keen method assembled by Creswell (2013). The researcher has experience with blended learning as both a student and an instructor. All interpretations are contingent on the expertise of the researcher. Eliminating bias on behalf of the researcher from this study is impossible. However, all biases will be acknowledged, and every attempt will be made to preclude bias from the findings.

Second, a diverse population of teachers is utilized in this study. However, the sample of participants' perceptions of the blended learning transition will be impacted by the implementation strategy of the school district. This strategy will be outlined in Chapter III. The findings will be relevant only under similar circumstances.

Third, purposive sampling will be used to select the pool of potential participants. Volunteer participants may be restricted to only those applicants comfortable with participating in a VFG. However, it is important to note that the technological capacity of the entire population is adequate for participation in a VFG.

Finally, the nature of this study limits the generalizability of the findings. An in-depth description of the population, sample, data collection methods, and data analysis procedures will be provided to allow for replication.

Definition of Terms

Blended Learning: Allen and Seaman (2012) defined blended learning as a course in which face-to-face meetings are combined with online delivery of instruction. Typically, 30% to 79% of the instruction is delivered online. For the purpose of this study, blended learning will refer to all courses supported by a course management system and labeled as a blended learning course.

Full-Time Online Learning: Full-Time Online Learning is defined as "a structured education program in which content and instruction are delivered over the Internet and the students do not attend a supervised brick-and-mortar location away from home, except on a very limited basis in some cases, such as for proctored exams, wet labs, or social events" (Staker & Horn, 2012, p. 7). Allen and Seaman (2012) defined online learning as a course in which all or most of the instruction is delivered online, and no face-to-face meetings are necessary. For the purpose of this study, online learning will refer to a course with no face-to-face component; thus, the course is delivered completely online.

Informal Online Learning: Informal Online Learning is defined as "any time a student uses technology to learn outside of a structured education program. For example, students could play educational video games or watch online lectures on their own outside of any recognized school program" (Staker & Horn, 2012, p. 7).

Technology-Rich Instruction: Technology-Rich Instruction is defined as "a structured education program that shares the features of traditional instruction, but also has digital enhancements such as electronic whiteboards, broad access to Internet devices, document cameras, digital textbooks, Internet tools, and online lesson plans. The Internet, however, does not deliver the content and instruction, or if it does, the student still lacks the control of time, place, path, and/or pace" (Staker & Horn, 2012, p. 6).

Traditional Instruction: Allen and Seaman (2012) defined traditional instruction as courses in which no online technology is used. For the purpose of this study, traditional instruction will refer to any course that does not have access to a course management system facilitating online or blended learning.

Web-Facilitated Instruction: Allen and Seaman (2012) defined web-facilitated instruction as a course that is primarily face-to-face, but slightly enhanced by technology. Typically, 1% to 29% of the instruction is delivered online. For the purpose of this study, web-facilitated instruction will refer to all courses enhanced by technology but not supported by a course management system.

Summary

Globalization has recreated the job market. The complexity of the global economy has developed a seemingly competitive educational environment. In order to compete

economically, the United States must prepare educationally. Technology is improving rapidly, and each improvement has substantial effects on education.

The US DoED has declared that technology will be an integral component to developing tomorrow's workforce. College graduates need to possess a diverse set of skills to prepare for the modern workforce. This creates a trickle-down effect, as students must develop some of these skills early in their educational career.

The effects of globalization and technology have implications for the K-12 classroom. Online learning must be incorporated into K-12 education in order to prepare students for success in college. Blended learning initiatives are trending across the United States, and research is needed to improve implementation strategies. Teachers must incorporate new skills in the classroom, while mastering the process of change.

This study will identify the concerns of inner city high school teachers who are experiencing the transition from traditional instruction to a blended instruction strategy. Furthermore, using phenomenological research methods and instituting a VFG will provide a qualitative description of the experience. The findings can be used to improve high school blended learning initiatives and illuminate the importance of effective change processes in educational organizations.

CHAPTER II: REVIEW OF THE LITERATURE

Introduction

The fusion of globalization and technology has created the need for educational reform. Postsecondary educational institutions have been initiating changes in response to the changing economic landscape; however, the changes being made at the K-12 level are still in infancy, and research is needed to explore the many facets of new educational practices. The purpose of this study is to isolate the lived experiences of urban high school teachers transitioning to a blended learning instructional environment. A phenomenological approach will be used to identify the meaning of this transition. This study also will employ a virtual focus group (VFG) as the primary means of data collection. The identification of teachers' perceptions of the transition from a traditional instructional strategy to blended learning will have implications for improving blended learning implementation strategies.

The purpose of this literature review is to report on the selective examination of three bodies of knowledge: organizational change, teaching with technology, and blended learning. This chapter is provided to (a) explore background knowledge of the organizational change process with a focus on education and individuals' reactions to change, (b) introduce key issues and concepts regarding educational technology and the integration of this technology into instructional practices, and (c) provide foundational knowledge for the practice of blended learning. What is known about organizational change and educational technology, coupled with what is unknown about blended learning, lays the groundwork for this study.

It is important to present conditions for the inclusion and exclusion of information in this literature review. The following conditions guided this process:

- This study is not focused on the effectiveness of blended learning, online learning, or any other form of educational technology. Therefore, this type of information is included in a minimal capacity. Rather, this literature review will include information pertaining to policy as well as teacher perceptions and concerns.

- The body of knowledge on change is extensive. A small amount of attention is given to foundational knowledge of change and the works of experts in the field of change. However, this literature review will focus on change as it pertains to individuals, particularly in the field of education. Two empirical studies were specifically selected to be included because of their focus on teacher concerns and the change process, as well as their implications for this study.

- The body of knowledge on blended learning is small. In order to provide the necessary background knowledge for this study, the information included in this literature review was selected using the definitions provided by the blended learning taxonomy included in this chapter. Therefore, studies are included that use the terms *computer-assisted instruction (CAI)*, *hybrid course*, *e-learning*, and *distance learning*. Three studies were specifically selected to be included because of their focus on teacher concerns and blended learning, as well as their implications for this study.

Much of the empirical literature reviewed in this chapter was identified using a ProQuest database search. In addition, several meta-analyses were included, as well as reports from the U.S. Department of Education (US DoED) and other educational organizations. Each

section will provide background information and empirical data, as well as descriptions of selected studies providing information critical to this study.

The remainder of this chapter is divided among the following topics: theoretical framework, educational change, teaching with technology, blended learning, and summary. Descriptions of empirical studies are provided at the end of each section.

Theoretical Framework

The following section will present an explanation of Disruptive Innovation Theory, which will serve as the theoretical framework for this study. According to Marshall and Rossman (2011), "By linking the specific research questions to larger theoretical constructs or to important policy issues, the writer shows that the particulars of the study serve to illuminate larger issues and therefore hold potential significance for that field" (p. 7). This study attempts to contribute to two primary fields: blended learning and educational change. The study will have implications in the fields of teacher efficacy, educational technology, and educational leadership.

Specifically, Disruptive Innovation Theory will provide a foundation for the study in the following ways:

- Disruptive Innovation Theory will explain the existence of blended learning as a hybrid innovation and how this affects its existence among other innovations.

- Disruptive Innovation Theory will provide a means of forecasting the growth of blended learning as an instructional strategy.

- Disruptive Innovation Theory will explain how teachers can conceptualize blended learning in order to utilize it as an effective instructional strategy.

Likewise, the theory will explain how blended learning can be framed for a less than desirable outcome.

- ▪ Disruptive Innovation Theory will explain how educational leaders should conceptualize blended learning in order to develop an effective implementation plan.

The perceptions of teachers using blended learning as an instructional strategy will be examined through the lens of Disruptive Innovation Theory and will provide some insight as to the employment of the innovation versus perceived success. In other words, Disruptive Innovation Theory will help those implementing blended learning to clarify the role of blended learning among other innovations, thus allowing a greater chance for meaningful change.

Disruptive Innovation Theory

According to Christensen, Horn, and Staker (2013), Disruptive Innovation Theory originated during a study that attempted to understand how industries struggle to sustain leadership from generation to generation. The original study involved the disk drive industry, but the theory encompasses service and product industries, fast- and slow-moving markets, as well as non-profit and for-profit sectors. Disruptive Innovation Theory offers an explanation as to the reasons that dominant companies fall as the entrant companies rise to replace them. This theory offers insights into the field of education as well, and contains predictive capabilities. Given sets of conditions, Disruptive Innovation Theory can provide insights for the future of educational technology, specifically the use of blended learning.

Christensen et al. (2013) claimed that industry leadership must be mindful of two markets: consumer and non-consumer. The consumer market is composed of individuals who purchase an industry's product. These consumers are able to afford the product and possess the expertise to use the product efficiently. An industry may rely on the consumer market to purchase newer versions of the same product as they are deployed. Conversely, the non-consumer market does not purchase the product. This may result from an inability to afford the product, as well as a lack of expertise in using the product efficiently. The industry cannot rely on the non-consumer market to purchase new products, nor do they attempt to sell to the non-consumer market. Therefore, though the non-consumer market is available to purchase a product, industry leaders are concerned only with the needs of the consumer market.

Christensen et al. (2013) reported performance improvements to be sustaining innovations. Sustaining innovations "help companies sustain their movement upward along the trajectory of performance improvement to make better products that can be sold for better profits to their best customers" (p. 11). Sustaining innovations allow industry leaders to maintain large portions of the consumer market by offering the type of technological improvements sought by the consumer market. For instance, safety improvements offered on the most recent model of a car would be a sustaining innovation, offering improved performance to satisfy the needs of their customers.

Christensen et al. (2013) claimed a disruptive innovation is not a performance improvement. Disruptive innovations are a result of technological progress allowing an entrant company to offer an alternative version of a product to the non-consumer market. The alternative product is typically inferior to the original product, thus the consumer

market initially is not interested. As technological progress allows the disruptive

innovation to improve and eventually compete with the original product, the consumer

market is affected, and industry leaders must acknowledge the disruptive innovation.

According to Christensen et al., "New entrants, rather than incumbent companies, almost

invariably grow to dominate the industry when one of these disruptive innovations

emerges" (p. 12). Online learning is an example of a disruptive innovation. Online

education offers educational opportunities in a variety of formats, creating educational

consumers where none may have existed. According to the theory, online learning could

potentially dominate the field of education.

Christensen, Horn, and Johnson (2008) claimed that organizational leadership

often tries to take a disruptive innovation and market it as a sustaining innovation. This is

a natural occurrence, as an organization has no desire to disrupt itself. However, by

marketing a disruptive innovation as a sustaining innovation, the disruptive innovation

will be at an immediate disadvantage, as the marketing company is bound by existing

values, economic models, and processes. For example, if educational leaders tried to

manage online learning as a simple performance improvement to the traditional model of

education, then online learning would not play such a competitive role.

According to Christensen et al. (2008), Disruptive Innovation Theory offers an

explanation as to the reasons that organizations fail amidst a technology-driven market.

The consumer markets demand sustaining innovations, or small improvements to the

performance of existing products. The non-consumer markets are ripe for the deployment

of disruptive innovations, or innovations that provide otherwise unavailable technology

to the non-consumer. According to theory, the disruptive innovations eventually can

surpass sustaining innovations as technology improves. Leaders must acknowledge the

power of disruptive innovations and adhere to the principles of Disruptive Innovation

Theory in order to effectively manage innovations in a technology driven environment.

Disruptive Innovation Theory and Education

Christensen (1997) stated that much of the schooling and experience of leadership

involves strategies for managing performance and improving innovations. This type of

knowledge and experience is valuable; however, when confronted with a disruptive

technology, standard procedures for managing sustaining innovations often will fail.

Christensen asserted:

Markets that do not exist cannot be analyzed: Suppliers and customers must

discover them together. Not only are the market applications for disruptive

technologies unknown at the time of their development, they are unknowable. The

strategies and plans that managers formulate for confronting disruptive

technological change, therefore should be plans for learning and discovery rather

than plans for execution. (p. 143)

Therefore, it is important to foster an environment of learning and discovery amidst

disruptive technologies in order to manage their existence within a market. Christensen

suggested that organizations should avoid a one-size-fits-all approach to innovation.

Attention should be given to the innovation with respect to sustaining qualities and

disruptive qualities. The appropriate course of action depends greatly upon the type of

innovation at hand.

Christensen et al. (2008) used elements of Disruptive Innovation Theory to

describe the relationship between educational technology and educational outcomes. In

an educational setting, sustaining innovations only slightly improve teaching and learning. Christensen et al. (2008) reported that the standard approach to integrating technology into schools is to cram computers into classrooms. This approach has sustaining tendencies. Rather than dramatically increasing the educational outcomes in the classroom, the computers allow only the traditional instructional practices to continue with the convenience of computers.

Flavin (2012) stressed the importance of understanding the role of "non-institutional technologies" (p. 103) at the postsecondary level and their effect on learning. Flavin found that a small number of technologies were used by students to support a large number of tasks. Flavin concluded that students preferred to use technology that was "free and easy to use" (p. 109) rather than existing technologies offered by educational institutions. The computer would have a much greater effect on education if managed as a disruptive innovation, as in the case of online education. Such is the plight of many innovations in education.

According to Christensen et al. (2008), online education is a disruptive innovation, competing against non-consumption. Furthermore, online education is attractive due to its technological and economic advantages. According to theory, the disruptive innovation adoption pattern typically follows the path of an S-curve rather than a linear path. Using a logarithm, Christensen claimed that online education will account for nearly 50% of courses taught at the high school level by 2019. Four factors can attribute to the substitution of online courses for traditional courses:

- Technology will allow online education to constantly improve.
- Online education is more student-centric.

- Online education circumvents teacher shortages.

- The costs of online education will decrease over time.

Furthermore, by 2024, it is expected that nearly 80% of courses taught in secondary schools will be taught online (Christiansen et al., 2008).

The focus on standardized testing in secondary schools has weakened the focus on the arts and humanities. This creates an area of non-consumption which, coupled with the four aforementioned factors, will allow for dramatic growth in online education. According to Christensen et al. (2008), Advanced Placement (AP) classes are evolving into an area of non-consumption. A disparity exists in the availability of AP courses in each school compared to the overall availability of AP courses in general. Therefore, many students will find themselves in situations in which they cannot take an AP class because it is not offered in their school. Furthermore, this presents an opportunity to use online learning disruptively to offer students AP courses otherwise not available. Urban secondary schools also are an area of non-consumption; however, this situation is a result of more resources being allotted to tested subjects. The result is that the humanities are often neglected and students are unable to take these types of courses in high school. Online learning presents a disruptive solution to this problem as well.

Hybrid Theory. Christensen et al. (2013) noted that blended learning is "emerging as a hybrid innovation that is a sustaining innovation relative to the traditional classroom" (p. 5). Education is a full consumption market. All students have access to a public education, thus blended learning is an attempt at combining online education with traditional instruction to create a "best of both worlds" (p. 5) scenario. Incumbents may elect to combine elements of the disruptive innovation with the existing product, thus

creating a hybrid, which are sustaining innovations and have the following distinct

characteristics:

- Hybrids blend new and old technology.

- Hybrids are produced for existing customers.

- Hybrids must work as well as the existing technology.

- It does not necessarily reduce cost or expertise.

Hybrids are significant in situations in which there are no non-consumers. If the entire

market consists of consumers, hybrids will tend to surpass disruptive innovations.

Christensen et al. (2008) indicated that the role of the teacher will be greatly

affected by a shift to computer-based learning. Teachers will be expected to provide more

individualized instruction and less classroom instruction, and will need to acquire new

skills in both technology and differentiation in order to maximize the capabilities of

computer-based learning per each individual student. Teachers will be required to focus

on skills that facilitate individual instruction, such as student data analysis. Theoretically,

the use of computer-based learning will allow teachers to instruct more students while

also providing one-on-one instruction.

Section Summary

Christensen et al. (2013) asserted that online learning is considered a disruptive

innovation poised for dramatic growth. Current conditions in education, particularly at

the secondary level and below, have created an environment in which online learning is

gaining momentum. According to Disruptive Innovation Theory, online courses could

outnumber traditional courses by 2025. Furthermore, Christensen et al (2013) classified

blended learning as a hybrid innovation, which have the potential to surpass both

traditional and online education. This will produce a dramatic shift in many facets of the educational landscape, including teacher preparation.

Additionally, Christensen et al. (2013) reported that Hybrid Theory offers an explanation for the combination of sustaining and disruptive innovations in a full consumption market. Education is considered a full consumption market, with the exception of small non-consumption markets such as AP courses in the urban setting. According to Hybrid Theory, hybrid innovations likely will surpass the sustaining, as well as the disruptive, innovations. Therefore, blended learning could emerge as the preferred method of instruction, combining elements of the traditional classroom and online education.

Disruptive Innovation Theory is an appropriate lens to examine the perceptions of teachers transitioning to the blended learning environment. The insights provided by this theory present a means for examining the components of blended learning within the context of both educational technology and educational change. More important, as the teacher is critical to the implementation of blended learning, an examination of teacher perceptions with the concept of sustaining and disruptive qualities in mind will offer depth to the data collected in this study. Furthermore, the predictive capabilities of Disruptive Innovation Theory, coupled with teacher perceptions, will provide additional insights as to the direction of blended learning at the K-12 level.

Organizational Change

Change is a complex animal; much ambiguity can be found throughout the entire process. Leaders within organizations who possess a solid understanding of change can provide stability throughout the process of change (Fullan, 2001). Strebel (1996)

highlighted the fact that many change efforts tend to fail. A reason for this lack of success is the difference between the leadership's perceptions of change and the employees' perceptions of change. The leadership often views change as a positive process to improve the organization; whereas, the employee typically views change as a disruption to established routines. According to Kotter and Schlesinger (2008):

> Few organizational change efforts tend to be complete failures, but few tend to be entirely successful either. Most efforts encounter problems; they often take longer than expected and desired, they sometimes kill morale, and they often cost a great deal in terms of managerial time or emotional upheaval. More than a few organizations have not even tried to initiate needed changes because the managers involved were afraid that they were simply incapable of successfully implementing them. (pp. 2-3)

Fullan (2001) noted that leadership "is not mobilizing others to solve problems we already know how to solve, but to help them confront problems that have never yet been successfully addressed" (p. 3).

Levinson (1994) proclaimed that two of the factors that can lead to organizational catastrophe are poor change management and failure to handle complexity. Fullan (2007) suggested that the implementation of change typically fails as a result of poor assumptions made on behalf of the leadership and the simple fact that managing change is a complex task. Fullan (2008) explained that transparency is important to the change process, as it provides clarity to the change process. Fullan (2001) stated that coherence making is critical within the complexities of the change process. Organizing the efforts of an organization behind coherent goals will focus the efforts of individuals.

The following section is a selective review of the literature in the field of organizational change as it relates to this study. Emphasis is placed on aspects of educational change among the literature. The section is divided into the subsections of Approaching Change, Planning Change, Facilitating Change, The Personal Side of Change, and Empirical Reports and closes with a summary of key findings as they relate to this study.

Approaching Change

As change is a complex process, it is important to approach change with caution and understanding. In an attempt to conceptualize the process of change, Oreg, Vakola, and Armenakis (2011) conducted a review of quantitative studies involving reactions to organizational change. The researchers sought quantitative studies combining organizational change with a specific focus on reaction to change and searched among studies conducted between 1948 and 2007. They identified 79 studies to include in the review, which were coded according to change antecedents, explicit reactions, and change consequences.

The model developed by Oreg et al. (2011) consisted of four major components: pre-change antecedents, change antecedents, explicit reactions, and change consequences. The purpose for the model is to examine relationships between antecedents, reactions, and consequences and also serves as a means of organizing variables. Another benefit of the model is the potential to use the information to build a comprehensive assessment of organizational change.

Pre-change antecedents represent conditions present before a change process is initiated. Pre-change antecedents were classified into two categories: recipient

characteristics and internal context. Recipient characteristics included demographics, personality traits, coping styles, and motivational needs. Internal context pertains to the conditions present within an organization prior to a change, such as the organizational culture and job characteristics (Oreg et al., 2011).

Change antecedents represent the components of change and were classified into three categories: change process, perceived benefits or harm, and change content. The change process includes variables such as participation, management competence, and information. The perceived benefits and harm includes a variety of variables that directly relate to the perception of change outcomes relative to the individual recipient. Change content involves the nature of the changes implemented in the organization (Oreg et al., 2011).

Explicit reactions were classified using three categories: affective, cognitive, and behavioral. Affective includes *feelings* regarding change; cognitive includes *thinking* about change; and behavioral involves *responses* to change. Two additional categories were given consideration in the coding process: multiple reactions and confounded reactions. Multiple reactions were combinations of behavioral, affective, and cognitive reactions. Confounded reactions were ambiguous, and the researchers were unable to classify these reactions according to the three primary categories (Oreg et al., 2011).

Change consequences included work related consequences and personal consequences. Work related consequences involved the perceptions of individuals toward the organization after the change. Personal consequences involved the psychological well being of individuals after change. The researchers noted that not all studies were specific

enough to distinguish between explicit reactions and change consequences, but some were specific (Oreg et al., 2011).

According to Oreg et al. (2011), several notable findings emerged from the review of organizational change literature. Increased involvement in the change process among change recipients reduces change resistance. The researchers found trust to be a critical component to organizational change. Similarly, organizations need to identify a change process that facilitates recipient involvement and a supportive environment. The researchers noted that management seems to ignore the personal side of change, which occurs despite the realization that this course of action is detrimental to the change process. Finally, the researchers noted the importance of highlighting the personal benefits of change rather than organizational benefits alone.

Barnard and Stoll (2010) conducted a literature review of the field of change management in order to provide perspective for future studies involving aspects of change. Among the findings is the fact that change may be planned by organizational leadership, but the employees may feel as if the environment is constantly shifting. Managing the amount of change occurring simultaneously can help alleviate these concerns among employees. Second, change should be managed as a process involving individual steps rather than a singular process. Using this approach, organizational leadership may plan and react accordingly at each step to improve the overall process.

Marzano et al. (2005) conducted a meta-analysis of studies focusing on K-12 leadership from 1970 to the present. The meta-analysis included only those studies in which the relationship between school leadership and student achievement were

examined, and also examined aspects of leadership as they related to change. The results offered insight as to the reason some innovations succeed while others fail.

Marzano et al. (2005) claimed that it is essential for leadership to understand the relationship between specific responsibilities and types of change. The study referred to two types of change: first order and second order. First order change is methodical and utilizes small steps. Second order change is more drastic and can involve "new ways of thinking and acting" (p. 66). Second order change manifests itself in terms of a specific innovation or issue. Therefore, the aforementioned leadership responsibilities are related to the implementation of an innovation.

After conducting a factor analysis to determine which of the 21 responsibilities were related to second order change, Marzano et al. (2005) concluded that seven revealed a relationship: knowledge of curriculum, optimizer, intellectual stimulation, change agent, monitoring/evaluating, flexibility, and ideals/beliefs. Four were negatively related to second order change: culture, communication, order, and input. In other words, the implementation of an innovation likely will disrupt these four leadership attributes.

Rosenberg and Mosca (2011) conducted a study to examine barriers to organizational change in graduate-level business classes at two separate universities. A 10-question survey was administered to 246 participants, comprised of entry-level employees from a variety of organizations. Descriptive statistical analysis was conducted, and the authors arrived at the following conclusions:

- Leadership must ensure that change is a part of the organizational culture.
- Leadership must employ individuals who can be successful in a changing environment.

- Leadership must make concentrated efforts to break down the barriers to change.

Furthermore, Rosenberg and Mosca suggested that, in lieu of the high failure rate among organizational change efforts, leadership should seek strategies that are conducive to their organization in order to combat the barriers to organizational change.

Armenakis, Harris, and Mossholder (1993) described the importance of readiness as a contributing factor in the success of change efforts. Two categories of readiness were reported: individual readiness and system readiness. According to Armenakis et al., assessing readiness begins with a message of intent. The message should highlight the need for change, as well as mention the ability of the individual and the organization to change. The change facilitators can use the following strategies to influence the perceptions of the initial change message: persuasive communication, active participation, and controlling external information. The readiness of the system should be determined by a combined measurement of the employees' ability to change and the time frame given for a change to take place. The authors described four categories of system readiness: aggressive, crisis, maintenance, and quick response.

Folaron (2005) suggested monitoring the following three readiness attributes of change participants to increase the likelihood of successful change: general readiness, emotional readiness, and capability versus desire to change. First, general readiness refers to the history of individuals and teams as it relates to previous change processes. Second, emotional readiness involves the process of letting go of the established routines before replacing them with new routines. Third, individuals and teams can assess capability and desire to change using the ADCOM acronym. This includes ability, direction, competence, opportunity, and motivation.

According to the literature, approaching change is a complex endeavor from both a management and participant perspective. The likelihood for successful and sustainable change may appear bleak, but strategies exist to provide clarity to the complexity. It is important that leadership have a sturdy understanding of change, and also realize the effects of change on the organization as well as the effect of a leadership style on the change process. Readiness should be taken into account before attempting change. If readiness can be assessed, then action can be taken to lay the foundation for successful change.

Planning Change

Leadership must approach change with understanding and theory. Hall and Hord (2011) stated, "Change is highly complex, multivariate, and dynamic" (p. 5). Their research focused on organizations and those involved in the change process and produced a set of principles that "summarize predictable aspects of change" (p. 5). The following 10 principles were created in an attempt to understand the change process:

- Instances of change produce learning opportunities. Those involved in the process should focus on learning to facilitate the change process.
- If change is treated as a single event, the effects will not be as substantial as if it were treated as a process.
- The faculty and staff of a school are vital to the change effort. Schools within a district will need differing levels of support throughout the process.
- Successful change efforts will focus on the individual level of change. An organization cannot change until each member of the organization has changed.
- Interventions influence the change process.

- Interventions can be used as tools to mitigate resistance to change efforts. Interventions can be tailored to target individuals in need.

- Administrators provide resources and support to facilitate the individual change efforts of teachers.

- Collaboration among change facilitators is essential for success.

- Mandates can work if the appropriate support is maintained throughout the change process.

- The context influences the process of earning and change — physical and social factors of an organization will affect the change process. (pp. 6-16)

According to Hall and Hord, the preceding principles of change are not "mutually exclusive," nor do they "cover all aspects of change" (p. 5).

A study by Evans et al. (2012) revealed that educational leaders often focus on the implementation of initiatives devoid of theoretical frameworks. Adhering to theories of change can greatly affect the results of change initiatives. A "firm grounding in change theory can provide educational leaders with an opportunity to orchestrate meaningful organizational improvements" (p. 155). According to Fullan (2008), a sound theory of change can explain the underlying reasons for the complexity in the change process.

Evans et al. (2012) suggested that shared vision, challenges, successes, and implementation issues are critical components of change addressed within a theoretical framework. Utilizing a theoretical framework to support the change process often requires additional training at the individual and group level. The utilization of theoretical frameworks requires time in order to produce effects; however, the structure of theoretical frameworks allows for a more systematic evaluation of progress. Evans et al.

suggested the following four theories of organizational change to be very conducive to the field of education: continuous improvement, organizational learning, learning organizations, and appreciative inquiry. The following criteria were used to support the inclusion of these theories: "possible adaptability to school systems," "emergence within the field of education," and "potential to support organizational change" (p. 156).

Fernandez and Rainey (2006) found that leaders can effect change in the public sector. However, change is rarely the linear process that is often prescribed. Leaders can adhere to models or frameworks in order to strengthen the change process. Fernandez and Rainey conducted a review of change literature in order to capture a cross section of several change models and frameworks. Eight factors were identified from the review of change literature: ensure the need, provide a plan, build internal support for change and overcome resistance, ensure top-management support and commitment, build external support, provide resources, institutionalize change, and pursue comprehensive change. These factors are not intended to be used as part of a linear model; however, they can produce "additive effects" (p. 169) to the change process that is in place. Fernandez and Rainey explained the existence of many similarities among change models and frameworks; therefore, similarity is noted between the list generated from the study and existing change models and frameworks.

In a somewhat different approach to understanding the change process, Hodge and Coronado (2007) attempted to explain the role of change in the postmodern world. Their premise is that traditional models of change adhering to a linear process are still useful in some instances; however, the postmodern world offers situations in which a linear model of change is not beneficial. Hodge and Coronado used Prigogine's far-from-

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equilibrium approach (as cited in Hodge & Coronado, 2007) to explain the conditions present in the postmodern world. The authors claimed that conditions are likely to be in a far-from-equilibrium state at many points throughout a change process. Heisenberg's Uncertainty Principle (as cited in Hodge & Coronado, 2007) and Zadeh's Fuzzy Logic Model (as cited in Hodge & Coronado, 2007) model are used to draw connections between the world of quantum mechanics and organizational conditions.

According to the literature, change is a process. Leaders can adhere to theories, models, and frameworks to increase the success of change efforts. These theories, models, and frameworks can be adapted to specific fields, such as education, in a manner to increase their effectiveness. Commonalities can exist among models of change. The postmodern world has created an increasing importance for change research in order to understand how modern complexity is affecting the traditional linear models of change.

Facilitating Change

Change cannot be accomplished by the efforts of one individual. Fullan (2001) stressed an importance of recognizing the distinction between the acquisition of knowledge and the sharing of knowledge. Organizations typically focus on training and workshops over the facilitation of knowledge sharing. This is especially important when technology is involved, as training is often rendered useless due to the lack of information sharing during the implementation of technology. Fullan (2008) claimed that building capacity within an organization should be a positive experience, not a critical one. Facilitating this type of exchange is much more beneficial to long-term success.

Armenakis et al. (1993) noted that change facilitators should possess the following attributes: expertise, sincerity, trustworthiness, and credibility. If the change

facilitators are perceived to display these characteristics, change readiness is most likely increased. Conversely, the lack of these attributes will hinder change readiness among participants. Change facilitators need to recognize that individuals react differently to change. Therefore, it is important to understand that readiness factors will differ among individuals as well as collective groups.

According to Hall and Hord (2011), educational leadership does not always manage change in the same manner. Therefore, certain styles of facilitation exist among educational leadership. Hall and Hord identified three separate styles of change facilitators: initiators, managers, and responders. Initiators utilize a "strategic sense" and are "always thinking ahead," while managers "try to do it all themselves," and responders "want everyone to be happy and get along" (p. 128).

Hall and Hord (2011) identified three clusters and six underlying dimensions to the change facilitator styles. The first cluster is concern for people and includes the social/informal dimension and the formal meaningful dimension. These dimensions measure the "personal aspects of leadership and change" (p. 132). The second cluster is organizational efficiency, which includes the trust in others and administrative efficiency dimensions. It also measures the "task or structure dimensions of traditional leadership models" (p. 134). The third cluster is strategic sense. It includes the day-to-day and vision and planning dimensions. These dimensions measure the "little decisions and issues that come up every day for leaders and the extent to which there is a vision and leadership with an eye to long-term goals" (p. 134).

Hall and Hord (2011) found that the identification of change facilitator styles is beneficial for leadership in several ways. First, the leadership can strive to reflect the

traits of a particular facilitator style. Second, it can improve the leadership's ability to work among others who possess different facilitator styles. The overarching benefit to understanding change facilitator styles is the ability to modify approaches to facilitating change.

According to the literature, facilitating change is a critical task. Change facilitators must possess qualities such as trustworthiness and expertise. Capacity building is an important organizational endeavor, which can facilitate the change process, particularly when technological innovations are introduced. Facilitators can adopt specific styles as an approach to increase their effectiveness.

The Personal Side of Change

A key component to successfully managing the change process is attending to personnel. Tierney (1987) claimed that organizations are constructed socially. Therefore, the perceptions of participants can offer insights into the health of the organization. Folaron (2005) suggested that in order to successfully manage the process of change, it is crucial to monitor the human side of change. The two most important considerations for managing a change process are identifying potential resistance and capitalizing on the consequences of change. According to Folaron, the consequences of change will have a more profound effect on an individual than the change itself. Motivation is the most important driver for managing resistance. Without motivation, individuals affected by change will struggle with respect to ability, direction, competence, and opportunity.

Kritsonis (2005) conducted a review of five change theories: Lewin's Three Step Change Theory, Lippitt's Phases of Change Theory, Prochaska and DiCLemente's Change Theory, Social Cognitive Theory, and the Theory of Reasoned Action and

Planned Behavior. According to Kritsonis, Lewin's approach eliminates any focus on the individual experiencing change; thus, the change will likely encounter resistance.

Kotter and Schlesinger (2008) reported that four major sources of resistance to change exist: employer and employee perception differences, self interest, lack of trust, and low change tolerance among employees. The authors offered six methods of handling resistance to change efforts: manipulation, coercion, negotiation, facilitation, participation, and education. Adapting a method of handling resistance depends upon the rate of change and the following four factors: type and amount of resistance, amount of power and trust in relationship to employer and employee, the amount of commitment and information needed to facilitate change, and what is at stake. Conceptually, change in the high stakes environment may allow leadership to ignore some resistance; whereas, a lower stakes affair will allow leadership to attempt to address and minimize resistance. Kotter and Schlesinger suggested that managers can improve change efforts by attempting the following: conduct organizational analyses, conduct analyses of change factors including perceived support and resistance, select a change strategy, and monitor implementation processes.

Smollan (2011) conducted a study in New Zealand to examine resistance to organizational change. Semi-structured interviews were conducted with 24 participants to explore reactions to change. The interviews focused on "the nature of outcomes, the scale of change, its speed, frequency and timing, fairness, leadership issues, personal factors (such as personality and previous experience of change) and organizational culture" (p. 836). Notable findings included the fact that individuals in a change process cannot always be classified as either supportive or resistant. Smollan noted that individuals can

exhibit signs of both. Second, the study revealed that resistance occurs at different levels within organizations. Furthermore, findings revealed that leadership could identify behaviors that were resistant in employees, but could not accurately identify resistant behaviors in themselves. Smollan concluded that identifications of resistant behaviors were socially constructed.

The personal side of change is a critical component to the success of the change process, as individuals are central to organizational change. According to Fullan (2001), leadership should seek ways to improve relationships within the organization. Leaders who seek to make a difference in the lives of students and employees also must be aware of the type of relationships they maintain among colleagues. Fullan (2008) stressed the importance of treating employees with as much respect as the customer. This type of mentality has a trickle-down effect, as employees who perform better create happier customers.

Fullan (2001) emphasized the importance of relationship building as an extension of moral purpose. In both business and education, individuals should be treated as valuable members of the organization. Fullan (2001) stressed the importance of the relationships among the members of the organization as the driving force behind success. Fullan (2007) stated:

> There is no getting around the *primacy in personal contact*. Teachers need to participate in skill-training workshops, but they also need to have one-to-one and group opportunities to receive and give help and more simply to *converse* about the meaning of change. Under these conditions teachers learn how to use an innovation as well as to judge its desirability on more information-based grounds;

they are in a better position to know whether they should accept, modify, or reject

the change. (p. 139, original in italics)

 Fullan (2008) claimed that interactions between employees should be purposeful. These

purposeful relationships serve to alleviate problems caused by the "too tight — too loose

dilemma," (p. 41) an instance where strict policy alienates, while flexibility can cause

drift.

Stages of Concern. Hall and Hord (2011) contributed much to the field of

change, particularly as it pertains to the concerns of individuals. According to Hall and

Hord (2011):

Feelings and perceptions about an innovation and/or a change process can help or

disrupt. When people are excited about a promising change, they will try it. But if

they perceive threat or loss, people will hold back from engaging with the

process. These feelings and perceptions can be sorted and classified into what we

call concerns. (p. 68)

This underlying belief is the backbone of the Stages of Concern (SoC), a means of

"thinking about people's feelings and perceptions about change" (p. 68). The application

of the SoC process can improve the change facilitation efforts.

Hall and Hord (2011) developed the seven SoC based on the categories of

concerns created by Fuller (as cited in Hall & Hord, 2011) during her work with student

teachers. These categories are: unrelated, self, task, and impact concerns. Unrelated

concerns exist among individuals who have concerns, but the concerns are not directly

related to education or the classroom. Task concerns occur as teachers experience

individual aspects of the job. Self concerns are related to teaching but focus on the

teacher rather than the student. Impact concerns involve the improvement of teaching and learning. Hall and Hord posited that these concerns are not related to only student teaching, but also are applicable among other groups of individuals experiencing change.

Understanding where concerns rest among the seven SoC is critical in order to determine appropriate interventions. Hall and Hord (2011) provided the following definitions for the seven SoC:

- Unconcerned: Little concern about or involvement with the innovation is indicated. Concern about other thing(s) is more intense.

- Informational: A general awareness of the innovation and interest in learning more detail about it is indicated.

- Personal: Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation.

- Management: Attention is focused on the processes and tasks of using the innovation and the best use of information and resources.

- Consequences: Attention focuses on impact of the innovation on "clients" in the immediate sphere of influence.

- Collaboration: The focus is on coordination and cooperation with others regarding the use of the innovation.

- Refocusing: The focus is on the exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. (p. 73)

The focus of the SoC is the individual using the innovation. The SoC as a construct is instrumental in identifying concerns in order that appropriate interventions can be implemented to coach the individual and facilitate the change process.

Literature has shown that the personal side of change is important. Leaders must acknowledge how this can affect the process of change. Ignoring the personal side of change can lead to increased resistance; additionally, considering the personal aspects of change in advance can even mitigate resistance. Building relationships is an important component to a healthy organization, particularly in times of change. The SoC is a construct designed to measure and manage the concerns of individuals within an organization. This type of analysis can assist leadership in developing appropriate interventions to facilitate change.

Recent Empirical Studies with an Emphasis on Educational Change

The following empirical studies were included to bridge the gap between the literature regarding theory and process and to explore change as it affects the field of education. These two studies were selected because of their focus on the personal side of change, as well as their focus on teachers. One study (Berkovich, 2011) explored the concerns of teachers as they endured a strike in Israel. The second study (Nash, 2012) explored a reform effort.

Berkovich (2011) conducted a descriptive case study focusing on a 64-day teacher strike in Israel in 2007. The government eliminated the cuts in teacher pay as well as promised to decrease class sizes as a result of the strike. The focus of the study was to examine the rhetoric used by the teachers as part of their resistance to proposed reforms.

A content analysis of teacher weblogs as well as school websites was conducted in search of thematic units of meaning. The meaning units were grouped into five categories.

Berkovich (2011) revealed that the Internet and media were legitimate forms for bolstering support among teachers. Second, the teachers used an appeal to the emotions of the public, highlighting the difficulties of the teaching profession. Third, teachers claimed to be in the right in their distrust of educational reforms. The teachers positioned themselves as the heroes in the fight for providing what is best for students. Fourth, the teachers attacked the credentials of the educational reformers. Fifth, the teachers claimed that educational reformers were too far removed from the realities of the school system. The teachers were in a much better position for understanding what was needed to improve educational practices.

Nash (2012) conducted a qualitative multi-case analysis of school reform utilizing the Kotter, Senge, and Heifetz (KSH) analytic framework of two large urban high schools. Both schools were participating in the same district-wide reform effort as a result of a grant from a non-profit organization. A second organization was commissioned to facilitate the implementation of reform goals, which included improving academic and technological infrastructures, technology improvements, and transformation to high achievement schools.

Nash (2012) reported that the KSH analytic framework was used as a tool to better understand the successes and failures of school reform. The framework included the following attributes: leadership, vision, teamwork, and action implementation. Data collection included interviews, document analyses, and focus groups. The primary researcher and an outside reader conducted the data analysis. The individual differences

between the two high schools were considered as part of the data analysis. It was noted that both high schools exhibited similar levels of achievement scores, free and reduced lunch, as well as professional environments. However, neither was excelling academically, and both faculties were somewhat resistant to change.

According to Nash (2012), the results confirmed that the KSH analytic framework is suitable for investigating school reform in large high schools. The results indicated that the leadership at both high schools in the study was unstable. The vision was responsible for increasing the amount of personalized learning occurring at both high schools. The faculties at both were tumultuous; however, some members tried to support change efforts. As a result of the grant and reform goals, both schools were able to achieve cultural transformations and sustained change.

Nash (2012) presented the following implications for school reform efforts. Leadership must be consistent throughout the change process. A stable environment facilitates faculty involvement and success in the change process. A vision must be consistent and clear. A divisive staff will hinder the change process. During the change process, tradition can be dangerous. Finally, the change process does not succeed as a result of large financial expenditures alone. The process should be monitored, evaluated, and modified to ensure success.

These studies provide several implications for identifying the stimuli behind resistance among teachers, while confronting change in an educational environment (Berkovich, 2011; Nash, 2012). Likewise, they reassert the notion that change often will conform to a model or framework and can be evaluated as such. Furthermore, personal concerns must be acknowledged. Similarities exist, in that individuals need to feel

valued, and resistance is the result of ignoring the concerns of individuals, as well as

inconsistency in leadership or process. Even more intriguing, Berkovich (2011)

discovered that the teachers involved in the strike viewed themselves as capable of

determining what is best for education. This type of rationalization could explain

teachers' disdain for policy changes and educational reforms.

Section Summary

According to the literature, leadership must approach change with both caution

and preparedness. Organizations must be prepared for impending change. Leaders must

learn how the process of change works and adopt models or frameworks that are

conducive to the type of environment where the change will occur. Change must be

facilitated in a manner that builds capacity among the organization. More important, the

personal side of change cannot be ignored. The individuals experiencing change are

critical components to the change process. Trust is a valuable commodity within an

organization experiencing change, and leaders often overlook the personal concerns of

individuals during change, despite the negative effects. Highlighting the personal benefits

of change can increase effectiveness.

Teaching with Technology

Lemke, Coughlin, and Reifsneider (2009) reported that educators have made five

miscalculations regarding the nature of technology over the previous decade: assuming

change involving technology is easily accomplished, documenting the effect of

technology on student learning, underestimating the diminishing digital divide, not

capitalizing on the engaging qualities of Web 2.0, and underestimating the rate of

technological change. This section is divided into the following subsections: The Internet, A Partnering Approach, and Empirical Reports.

The Internet

Cramer (2007) reported that technology integration changes the means by which teaching and learning is conducted, and the Internet offers a variety of tools that can enhance student learning. The Internet allows the student to learn lessons with real world context. The National Center for Educational Statistics (NCES) reported on Internet use among students in 2003. The population included students enrolled in nursery schools through 12th grade. According to the report, approximately 91% of students use computers and 59% use the Internet. Second, computer and Internet use begins at an early age. Computer use increases from approximately 60% to 80% between nursery school and 3rd grade. Internet use increases from 23% to 50% between nursery school and 3rd grade (DeBell & Chapman, 2006).

Internet Access. DeBell and Chapman (2006) noted that the NCES report confirms the existence of a digital divide. Technology use is higher among Caucasians than African-Americans and Hispanics. Technology use also is higher among students whose parents possess higher levels of education. Furthermore, family income and technology use is positively correlated. Students without physical disabilities are more likely to use the Internet than those with physical disabilities. When controlling for other variables, students from two-parent households are more likely to access technology than those from single-parent households. Finally, students living in suburbs are more likely to access technology than students living in the urban areas. Schools help to bridge the digital divide offering, Internet use to students who otherwise would not have access.

Hawkins and Oblinger (2006) reported on the nature of the digital divide from a college perspective. The digital divide is mistakenly underrepresented among research due to the lack of a deeper understanding of it. The digital divide cannot be reduced with only a computer and Internet access, as there are levels to this issue. Computers improve rapidly. Possessing a computer versus not possessing a computer is different than possessing a new computer versus possessing a five-year-old computer. However, not having a computer and having a five-year-old computer may produce the same results in terms of new software. Likewise, Internet access can be classified as dial-up or high-speed.

Hargittati (2010) asserted that technological ability differs, despite Internet access and experience. Rather, demographic factors, such as parents' level of education, race, and gender, can influence Internet skill. Warschauer and Matuchniak (2010) claimed that the digital divide is less existent in the United States in the traditional sense of Internet access. However, a digital divide exists regarding the ability to use technology and the Internet. These factors are critical to bridging the digital divide, particularly when teaching is combined with technology.

According to a report by the US DoED (2009), the widespread availability of technology, including Internet access, does not by itself constitute a means of reporting on the educational use of technology among teachers and students. The report revealed that "Nearly half of the teachers across the country indicated that they experienced *no* barrier in the form of slow or unreliable Internet connections during 2006-07" (p. 12, original in italics). Furthermore, high-speed Internet access and classroom computer access were reported to be similar across school poverty lines.

Though a digital divide still exists, digital technology access is improving. This is an important component to teaching with technology. The realization that a digital divide exists within a school district or across a state should cause educational leaders to resource educational technology initiatives accordingly to mitigate the effects of the digital divide on educational outcomes.

Open Educational Resources. One trending issue brought about by the Internet is Open Educational Resources (OERs). Allen and Seaman (2012) defined OERs as "teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others" (p. 2). The availability of these resources has many financial implications for education. The commercial cost of educational materials hinders the capabilities of many institutions. The availability of free educational materials can revolutionize the means by which information is made available to students. The results of a series of studies between 2009 and 2011 conducted by the Babson Survey Research Group revealed that approximately half of institutions reported being aware of and actively using OERs (Allen & Seaman, 2012).

Massive Open Online Courses. The last several years have seen the development of Massive Open Online Courses (MOOCs) via the Internet. The creation of these courses has implications in the fields of both education and business. According to an executive briefing from Educause (2012):

> MOOCs provide access to education on a massive, international scale. Currently, most students who enroll in MOOCs are internationals and/or professionals rather than enrolled college students. This balance may shift as institutions develop

models for integrating MOOCs into students' educational pathways. MOOCs

provide instruction, but they also highlight the institution by featuring renowned

professors. MOOCs can be used as primary or supplementary course material for

instructors who wish to weave them into their curricula. (p. 2)

Allen and Seaman (2013) reported that 32.7% of college institutions have no plans for

MOOCs, and 55.4% of college institutions were undecided about MOOCs. Furthermore,

academic leaders worry that MOOC credentials will be confusing among employers, and

MOOCs have yet to exhibit signs of sustainability.

Yuan and Powell (2013) reported two major concerns regarding the development

of the MOOC platform: the effectiveness of MOOC pedagogy and logistical

requirements. Research is needed to evaluate the overall effectiveness of MOOCs and to

investigate the motivational factors among MOOC participants. Furthermore,

sustainability is certainly a threat to MOOCs; however, several corporations, including

Google and Microsoft, have expressed interest in the capabilities of MOOCs and have

even partnered with MOOC start-ups. The continued development of MOOCs remains a

variable among educational initiatives.

Social Networking. Social Networking is a unique medium for communication.

Communication is a critical skill among students in the modern classroom. The

development of communication skills, as well as basic social skills, is affected by

technology (Watson, 2010). Bell and Bull (2010) suggested that digital video from sites

such as YouTube, SchoolTube, and TeacherTube likely will play an increasingly

important role in educational instruction. Prensky (2010) suggested that reading and

writing skills are diminishing in levels of importance as more individuals are influenced

by media. Prensky noted that YouTube is an important educational tool for students to use and supports using alternative communication mediums in the educational process.

Hansford and Adlington (2009) argued that students should be able to express themselves using digital text, and teachers should consider re-evaluating writing assessment. The use of digital texts can add engagement to assignments, as well as social relevancy. The modernization of the traditional classroom creates a need for the capability to communicate and collaborate effectively. The effects of social networking sites (SNS) on communication skills and learning outcomes must be understood prior to implementing a learning system built upon emerging technologies.

Zorofi, Gargari, Geshlagi, and Tahvildar (2011) conducted a study to establish a relationship between media usage and its effects on social skills. The researchers anticipated that the results would show that media usage increases social skills among students. By and large, the study was to determine changes in social skills among students using media in higher education courses. The results confirmed existing beliefs that media usage increases students' social skills. Positive correlations occurred most significantly among assertiveness and haughtiness. Additionally, recommendations were made to suggest that lack of knowledge regarding media usage can have negative effects on involvement and rewards.

Silius, Kailanto, and Tervakari (2011) attempted to determine the most important aspects of social media with respect to educational enhancement. The study "aimed at getting an understanding of what are students' expectations for social media services in an higher educational context and identify what are the critical features and factors when using social media enhanced learning systems" (p. 21). First, the researchers described

WeSQu, a web-based evaluation tool, and rationalized through a review of literature its ability to evaluate social media programs. The WeSQu was determined to be capable of evaluating social media sites in terms of "presenting information, reliability of information, visual design, readability of text, media elements, supporting navigation, technical implementation, security and privacy, accessibility and motivating the user" (p. 22).

Silius et al. (2011) attempted to determine the positives and negatives of social media and the motivating factors for using social media according to students. The first study involved an analysis of essays from 10 hypermedia students highlighting pleasant and unpleasant characteristics of social media enhanced learning systems. Results showed that students believed social networking sites (SNS) should exhibit good "usability, accessibility, and overall technical sustainability" (p. 23). The second study examined at responses from 38 hypermedia students to determine the motivating factors for SNS use in higher education. The results showed that the "nature and purposes of social media enhanced learning systems affects students' motivations to use the systems" (p. 24).

Silius et al. (2011) included one final component to their study in an attempt to understand the aspects of SNS in education that were the most and least important according to students. In this study, 40 hypermedia students listed the 10 most important and 10 least important features of SNS from a list of 89 features derived from the WeSQu evaluation tool. The results showed that *usability* was the most important feature of SNS, and *rewarding and motivating top users* was ranked the least important. Overall, the

report concluded that "At their best social media enhanced learning systems offer versatile features to support a learning community to study and teach" (p. 25).

The Internet has had a profound effect on teaching and learning. Access is increasing, and the digital divide is transforming into an issue of efficacy. Educational resources are abundantly available and, in most cases, free. College courses are offered online and free. Students in the digital age possess a propensity for using social media, and the result is a change in the means by which they communicate information. Though social media has been associated with favorable learning outcomes, it remains an important issue for teachers to understand its effects on teaching and learning in order to integrate social media with instructional strategies. Likewise, the combination of increasing Internet access, a widening digital efficacy divide, the availability of OERs, and the fact that MOOCs are creating alternative means of acquiring education has many implications on the direction and focus of blending technology with instruction.

The Partnering Approach

Teaching with technology is an important facet to education in the 21st Century. Tamim, Bernard, Borokhovski, Abrami, and Schmid (2011) conducted a second order meta-analysis focusing on classroom learning and technology that included over 1,000 studies and found technology use in classrooms to have a positive effect on learning outcomes compared to classroom instruction without technology. In addition, Tamim et al. noted that technology use should include knowledge formation activities rather than content presentation. Li and Ma (2010) conducted a meta-analysis to examine the effect of technology on math learning at the K-12 level. The study found technology to have

positive effects, particularly when constructivist activities were used as opposed to traditional methods.

Many issues exist concerning interchangeable terminology in the rapidly expanding field of educational technology. Staker and Horn (2012) supplied the following additional definitions in order to provide even more clarity to the combination of education and technology:

- Traditional instruction — a structured education program that focuses on face-to-face teacher-centered instruction, including teacher-led discussion and teacher knowledge imparted to students. Students are matched by age, and possibly also ability. Instructional materials are based on textbooks, lectures, and individual written assignments. All students in the classroom generally receive a single, unified curriculum. Subjects are often individual and independent instead of integrated and interdisciplinary, particularly in secondary school.

- Technology-rich instruction — a structured education program that shares the features of traditional instruction, but also has digital enhancements such as electronic whiteboards, broad access to Internet devices, document cameras, digital textbooks, Internet tools, and online lesson plans. The Internet, however, does not deliver the content and instruction, or if it does, the student still lacks the control of time, place, path, and/or pace.

- Informal online learning — any time a student uses technology to learn outside of a structured education program. For example, students could play educational video games or watch online lectures on their own outside of any recognized school program.

- Full-time online learning — a structured education program in which content and instruction are delivered over the Internet and the students do not attend a supervised brick-and-mortar location away from home, except on a very limited basis in some cases, such as for proctored exams, wet labs, or social events. (pp. 6-7)

These definitions provide a foundation for both understanding and differentiating among elements of educational technology. These relationships are important especially as the progression moves from technology-rich instruction to online learning.

Prensky (2001) reported that the nature and process of education has changed drastically. The students who enrolled in schools today are not reminiscent of the students the system was designed to educate. This is attributed to the onset of digital technology that rapidly occurred during the latter decades of the 20th Century. Prensky claimed that the students enrolled in today's education system are the first to have been immersed in this new digital world while maturing. Similar to the ideas of Watson (2010), Prensky (2001) reported that these digital age students' thinking patterns are fundamentally different from the students of the past.

Prensky (2001) coined the phrase "digital natives" (p. 1) to represent those coming of age in the digital world. Furthermore, the remaining population, including most teachers, is labeled "digital immigrants" (p. 2). In order to coexist, the digital immigrants must learn the language and practice of the digital natives, as little chance exists for the natives to revert to the old ways of learning. Prensky claimed that an update of the methodology and content of the education system is needed. It is essential to

understand the role of the digital native and the digital immigrant within the existing system.

Similarly, Bunch, Robinson, and Edwards (2012) conducted a study of secondary level agriculture teachers in order to examine teacher self-efficacy regarding the use of interactive whiteboards in Oklahoma. The results revealed several correlations between self-efficacy and age. The older participants exhibited lower self-efficacy. Conversely, the younger participants exhibited higher levels of self-efficacy. Furthermore, Bunch et al. reported a positive correlation between usage and self-efficacy. Teachers who used the device more often reported higher levels of self-efficacy.

Prensky (2010) reported the partnering approach to be an appropriate means of combining the best aspects of the digital immigrants and the digital natives while focusing on student learning. Prensky defined the partnering approach as "letting students focus on the part of the learning process that they can do best, and letting teachers focus on the part of the learning process that they can do best" (p. 13). In the partnering approach, the teachers act as a guide for student learning, rather than provide direct instruction.

Levin and Wadmany (2006) conducted a phenomenographic longitudinal study in Israel spanning three years in order to investigate the perceptions of teachers immersed in a technology-rich environment. Six highly experienced teachers were selected to participate and completed three open-ended questionnaires covering the following constructs: teaching, learning, role of the student, role of the teacher, curriculum, and technology. Data collected from the questionnaires were supplemented with over 70 observations. Interview data were coded using four categories for interpretation of

responses: conceptions of learning, conceptions of teaching, teaching models, and views on technology.

Levin and Wadmany (2006) found that as a result of teaching in the technology-rich environment, most of the teachers' beliefs on teaching and learning had undergone changes. In general, beliefs on learning migrated from behaviorist to constructivist, while beliefs on teaching migrated from a focus on content delivery to a focus on understanding. Furthermore, teaching practices evolved from direct instruction to a focus on facilitating collaborative learning. These results are generalizations of the overall results. It is important to note that one of the participants did not exhibit the same types of changes as the other five. However, the findings from this study support the notion of changing instructional practices in the technology driven classroom and placing a focus on collaboration.

Faris and Selber (2013) conducted a case study to examine the use and integration of iPads at Penn State. Structured interviews, device analyses, written reflections, and contextualized observations were used to collect data for the study. Results indicated that instructors needed to assist students in developing skills for managing multiple technological devices. Furthermore, as part of an integration plan, it was more beneficial to utilize devices across the curriculum, rather than a single class setting.

Prensky (2010) claimed partnering to be similar, if not the same, as many other existing pedagogies, namely project-based learning or problem-based learning. The distinction lies in terminology. Partnering offers an explanation as to the role of the teacher and the student. The teacher will ask, rather than tell. The student will seek out answers rather than be told what to write down.

The role of technology is central to the partnering approach. In fact, Prensky (2001) declared partnering to be an effective means of blending technology into the classroom and curriculum. Students will utilize technology in their search for answers. Technology will cease being objectified as an additional component of education and will take on the role of a tool for accomplishing the task of education. Furthermore, in the partnering approach, teachers need not be technological experts. They can learn from the students as they utilize the inherent technological skills of the digital native.

Similarly, the US DoED (2010) concluded that it was unnecessary to provide for the delivery of professional development for routine technology use. Rather, professional development could be more useful when employed to enhance the use of educational technology. Professional development should be more collaborative and thorough regarding technology that affects teaching methods and more routine regarding software use. Furthermore, research is needed to enhance the quality of such professional development.

Teacher and student roles are changing due to the expansion of technology. Teachers are encouraged to play more of a partnering or guiding role in the education process. This approach will allow students, as well as teachers, to use technology in the most beneficial manner possible. According to the literature, teachers should be more focused on the implementation and use of technology in the classroom and allow skill development to be a byproduct.

Recent Empirical Studies with an Emphasis on Teaching with Technology

Lu and Overbaugh (2009) conducted a study to explore K-12 teachers' perceptions of facilitators and barriers to educational technology. The study also

examined aspects of educational technology with regard to school location and level using both quantitative and qualitative methods. The study's population consisted of K-12 teachers in Virginia who participated in at least one educational technology professional development course as part of a NCLB grant.

According to Lu and Overbaugh (2009), the Technology Implementation Survey was created to measure four areas of implementation: knowledge of technology and curriculum, teacher use of technology, student use of technology, and technology facilitators and barriers at the school level. The instrument underwent face and content validity evaluations, and a Cronbach's Alpha score of 0.92 was computed which satisfied reliability and validity requirements. The instrument utilized a 5-point Likert format. In addition, a semi-structured interview protocol was developed in order to triangulate quantitative findings. The protocol was developed by Lu and Overbaugh, reviewed by methodologists, pilot tested, and revised for use in the study. The focus of the protocol was K-12 technology integration.

Lu and Overbaugh (2009) administered the Technology Implementation Survey to a sample of 177 participants who voluntarily completed the survey. A random sample of 10% of the survey participants was selected to participate in the semi-structured interviews. Face-to-face interviews were conducted primarily; several participants were interviewed via telephone. All were audiotaped and transcribed.

Data analysis for the survey was conducted using both descriptive statistics and a one-way ANOVA. Findings revealed time constraints to be the most significant barrier to educational technology integration, followed by technical problems. A one-way ANOVA was conducted to determine significant differences among suburban, rural, and urban

schools regarding educational technology integration. Suburban schools exhibited the most favorable conditions for educational technology integration, whereas rural and urban exhibited the most difficult conditions. Furthermore, the one-way ANOVA results for school level revealed no significant differences among elementary, middle, and high schools with regard to technology integration.

A content analysis was conducted on the transcribed interview data. Findings revealed teachers enjoyed using technology and were supported by the administration. However, rural teachers were concerned with limited access to technology, and a large number of teachers were frustrated with frequent technical problems. Lu and Overbaugh (2009) concluded that conditions in K-12 schools were favorable for educational technology integration. Administrative support and educational opportunities were viewed as facilitators, whereas time constraints and technology access were perceived as barriers.

Janicki and Chandler-Olcott (2012) conducted a qualitative study of secondary English teachers' use of classroom websites. The study was constructed upon an interpretivist approach and attempted to address gaps in the literature regarding classroom websites and teacher perceptions. The authors reported gaps in the literature existed regarding discipline specific and school-level specific empirical evidence of teachers' use of classroom websites. Building on this limited body of research, this study uses a specific population (secondary English teachers) to focus on the perceptions of high school English teachers.

Both Janicki and Chandler-Olcott (2012) possess backgrounds in teaching English, as well as using classroom websites. For the purpose of this study, classroom

websites include the use of course management systems such as Blackboard, as well as independently created classroom websites. The authors identified 20 volunteer participants from rural and suburban school districts in upstate New York. The volunteers represented five school districts with adequate technology access, and 15 of the volunteers were currently using classroom websites at the time of the study. The participants represented three stances relating to the use of classroom websites: crafter, conformer, or dissenter. Participants used Blackboard, Schoolworld, or Weebly to facilitate their websites. All taught English at the middle or high school level.

Janicki and Chandler-Olcott (2012) conducted an interview protocol consisting of 10 open-ended questions. The interviews were audiotaped and transcribed for coding. Screen shots were also taken of each classroom website. Open coding was used during data analysis, in which the authors searched for commonalities among the participants' responses to interview questions and the website screenshots. The findings were reported with respect to the reasons for creating the websites, how they were created, and their use.

According to Janicki and Chandler-Olcott (2012), five themes were identified regarding the reasons for creating the sites: district policy, parent communication, make-up work, college preparation, and in response to pressure to utilize technology in the classroom. Professional development and peer modeling were identified as two methods for creating classroom websites. Providing digital versions of classroom resources and additional resources for students were among the major themes for use of the websites.

Janicki and Chandler-Olcott (2012) discovered inconsistencies between the findings and the review of literature. For example, the authors noted the role of the school

district in mandating and facilitating websites as a recent phenomenon, as the literature implied the use of classroom websites to be more teacher initiated. Furthermore, the conclusion regarding technology use as more prevalent among younger teachers was challenged by the findings in this study. Implications for further research included the need for conducting similar studies in urban schools. In addition, the authors noted the use of professional development as very helpful in the creation of classroom websites, but more emphasis should be given to the type of content to be included on classroom websites. Finally, it was suggested that teachers be allowed to increase collaboration in order to share best practices.

Findings from these studies (Janicki & Chandler-Olcott, 2012; Lu & Overbaugh, 2009) have implications for K-12 teachers and blended learning implementation. First, evidence of increasing school district influence was found regarding the use of technology in the classroom. Second, both studies reported conditions to be favorable for integrating technology into the K-12 classroom. Third, the role of the teacher is instrumental in the process, and the concerns of the teachers should be instrumental in the creation of implementation strategies. Fourth, qualitative research is a necessary and appropriate means of capturing the concerns of teachers who attempt to integrate technology with traditional instruction. Last, issues of time constraints and technical problems are inevitable; administrators and facilitators should construct strategies to alleviate time constraints and technical problems associated with the integration of educational technology. Both studies exhibit limitations regarding generalizability. However, as the use of educational technology increases, including blended learning, it is

necessary to employ qualitative research to identify key concerns to explore in future

quantitative studies.

Section Summary

This section provided insights regarding the combination of technology and

instruction. The Internet plays an expanding role in education, as it affects the social

skills of students, as well as the educational opportunities of both teachers and students.

New strategies have been developed to assist teachers with the integration of technology

in the classroom in order to maximize educational output. Personalized instruction and

collaboration play a large role in technology driven instructional strategies.

The empirical studies in this section highlight the importance of the teacher's role

in implementing technology, as well as the need for qualitative research in capturing the

concerns of those who are using technology in the classroom. Time constraints and

technical issues were cited as concerns among educators regarding the use of technology

in the classroom (Janicki & Chandler-Olcott, 2012; Lu & Overbaugh, 2009). According

to Levin and Wadmany (2006), teachers respond differently regarding technology;

therefore, teachers have different needs regarding technology support. Furthermore,

relative to the implementation of innovation, adoption alone is not enough.

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Blended Learning

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Blended learning is a relatively new innovation affecting employee training,

postsecondary schools, and now K-12 education. Blended learning combines elements of

traditional instruction with online learning, creating an entirely new mode of instruction.

According to Disruptive Innovation Theory, blended learning exists primarily as a hybrid

innovation at the K-12 level; thus, potential exists for blended learning to become more

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successful than traditional instruction and online learning. This section is divided into the following subsections: Issues in Blended Learning Research, Postsecondary Blended Learning Research, K-12 Blended Learning, A Blended Learning Taxonomy, and Empirical Reports.

Issues in Blended Learning Research

Picciano (2007) reported several issues regarding blended learning research. First, colleges and universities are not systematically collecting data regarding blended learning courses. In some cases, blended learning courses are taught, but administrators are unaware of who teaches the courses, nor what or how they are being taught. The absence of data collection in the numerous occurrences in which blended learning is conducted produces large gaps in the literature.

Second, issues exist regarding terminology. Picciano (2007) noted that efforts have begun to streamline blended learning terminology, but a large number of college and university leaders have not conformed to this streamlined terminology. Furthermore, a lack of a generalized terminology exists for blended learning as well as disagreements regarding what constitutes blended learning. According to Picciano, "One school's blended is another schools hybrid, or another school's mixed mode" (p. 11).

Additionally, a large number of instructors are unaware that their teaching practices are considered to be blended learning. The rapid advancement of instructional technology and its growing use has caused many instructional practices using technology to become commonplace; therefore, instructors do not considering their teaching practices as blended learning (Picciano, 2007). This is not to say that the use of educational technology alone constitutes blended learning. Rather, if educators are

ignoring the reality of blended learning, it is likely they are ignoring best practice as well as contributing to the scarcity of blended learning research.

Postsecondary Blended Learning Research

According to Means et al. (2010), though blended learning is still considered a relatively new phenomenon and the body of empirical research remains small, it is evident that a majority of the blended learning research has been conducted at the postsecondary level. In order to provide some background on the early assumptions and conclusions drawn regarding blended learning, it is necessary to include a narrative synthesis of selected postsecondary blended learning research.

Vignare (2007) conducted a review of the literature pertaining to blended learning using the Sloan-Consortium quality framework, which is built around the five pillars of learning effectiveness, student satisfaction, faculty satisfaction, cost effectiveness, and access. Learning effectiveness often is measured in terms of completion or retention rates. Student and faculty satisfaction involves determining what is needed for students and faculty to feel "prepared and satisfied" (p. 40) with the experience. Access involves the availability of programs for students, and cost effectiveness measures the benefits of offering programs versus the cost of such programs. According to Vignare, much of the research will overlap several pillars. The goal of the framework is to improve processes using metrics.

Blended learning "reflects all of the Five Pillars of the Sloan-C framework, but more research is needed, especially in the faculty satisfaction, student satisfaction and access pillars" (Vignare, 2007, p. 56). Cost effectiveness and learning effectiveness are

the largest components of blended learning. Furthermore, researchers postulate that blended learning will have a greater impact than fully online programs.

Vignare (2007) stressed that much consideration must be given to technology access. Implementation will suffer without adequate access to technology. Furthermore, providing faculty time to plan and collaborate is essential to developing and refining blended learning programs. The decision to target specific students or provide blended learning for all students is a critical component of cost effectiveness. Vignare suggested, "To get the most from an investment like blended learning, institutions need to apply more business-like principles and strategically plan for successful implementation" (p. 56). A request for more research is included in the review of literature.

A study by Rovai and Jordan (2004) investigated the sense of community among traditional, online, and blended learning courses in graduate-level education courses. A total of 64 participants completed pretests and posttests using the Classroom Community Scale (CCS), which is designed to measure learning and connectedness. A causal-comparative analysis was utilized to analyze the data. Results confirmed the researchers' hypothesis that blended learning courses exhibited a higher sense of community. In addition, the blended learning courses received positive comments on the students' end-of-course evaluations.

Similarly, Story and DiElsi (2003) claimed that blended learning courses can create a sense of community among participants; however, the work load is greater for blended learning instructors. Willett (2002) reported that hybrid courses are more time consuming for the instructor; technical problems also are likely to interfere with learning. Johnson (2002) conducted an action research study involving the hybridization of a postsecondary communication course and reported that hybrid classes require significantly more time to plan, implement, and maintain than traditional courses.

Krebs, Ludwig, and Müller (2010) reported that Internet-based collaboration increases student engagement. Vaughan and Garrison (2005) asserted that teachers need to be trained in order to maximize student outcomes in an online environment that utilizes activities such as online discussions. Wu and Hiltz (2004) noted that students believe online activities such as discussions increase their learning. Furthermore, students can take advantage of Internet-based collaboration in a self-paced format. Hoic-Bozic, Mornar, and Boticki (2009) believed blended learning to be an acceptable transition point between traditional educational instruction and online learning.

In an attempt to produce a conceptual framework for blended learning, Shea (2007) examined the underlying reasons that blended learning could enhance education at the college and university level. Access was the first of the identified reasons for using blended learning. According to Shea, the utilization of blended learning at the college and university level increases the level of access to courses. Reducing the number of face-to-face instructional hours per student increases both the amount of time students can devote to other tasks, as well as increases the amount of available instructional hours to ration among other students.

Shea (2007) reported that increased access is a reasonable goal, only when the quality of blended learning is high. Increased access to lower quality courses accomplishes nothing for students and higher education institutions. Herein lies another key distinction between blended learning research at the postsecondary education level and K-12 education level. The central issue of access previously identified does not necessarily affect the K-12 population in the same manner as the postsecondary level. Emptying seats in order to fill seats will not suffice in the factory model of K-12

education. Therefore, issues of quality more likely will be a driving force rather than a motivator in K-12 education.

Research indicates that blended learning at the postsecondary level can be beneficial for both the university and the student. However, the similarities are scarce between college programming and K-12 programming. K-12 blended learning practices must undertake a different set of considerations in order to grow.

K-12 Blended Learning

Means et al. (2010), on behalf of the US DoED, located over 1000 empirical studies conducted between 1996 and 2008 relating to online learning. Analysts narrowed the pool to 50 using the following four criteria: "(a) contrasted an online to a face-to-face condition, (b) measured student learning outcomes, (c) used a rigorous research design, and (d) provided adequate information to calculate an effect size" (p. ix). The results of a meta-analysis revealed "On average, students in online learning conditions performed modestly better than those receiving face-to-face instruction" (p. ix).

Means et al. (2010) reported that online learning is traditionally classified as distance learning, which includes videoconferencing, correspondence courses, and other forms of media. The authors posited that if no substantial difference is found in outcomes, as with distance learning, online learning should be pursed in force due to cost efficiency. The tools commonly associated with distance learning have been surpassed by more adept educational technologies. The potential learning outcomes of online education need to be studied in light of the massive availability of these advanced forms of educational technology. Furthermore, blended learning is among the new forms of educational approaches in need of rigorous study.

The goal of the 2010 meta-analysis conducted by the US DoED was to provide factual information for K-12 leadership in order to facilitate implementation of online learning programs, as well as preparation programs for teachers. Problems arose due to the lack of rigorous studies conducted at the K-12 level. In fact, only nine of the studies involved K-12 students, four of which were excluded. Findings included studies from various other fields, including higher education. The US DoED presented findings that can only be generalized only to the K-12 population (Means et al., 2010).

It is important to note one key feature of the US DoED report: the US DoED claimed that online learning need only be as effective as face-to-face instruction, whereas blended learning must be more effective. This is the result of the cost efficiency aspect of online learning (Means et al., 2010). However, it is important to note that a blended learning program initiated in a K-12 setting, versus a postsecondary setting differs in many aspects, particularly cost efficiency as a result of compulsory education laws. Basically, college course programming offers more flexibility than K-12 course programming. Therefore, the effects of blended learning programs must be well known and well received prior to any large scale implementation at the K-12 level.

An additional component of the US DoED report was a narrative synthesis of 77 studies that were eliminated from the meta-analysis for various reasons. The results from the narrative synthesis included the following:

- If online learning and blended learning are compared within a single study, learning outcomes are comparable.
- Various media elements do not influence learning outcomes.
- Manipulative media and learner reflections influence learning outcomes.

- Support mechanisms for group activities do not influence learning outcomes.

    (Means et al., 2010, p. xvi)

It is important to note that only five of the studies included in the narrative synthesis involved K-12 students.

The results of the 2010 US DoED report revealed blended learning to be more favorable than online learning, which was shown to be as effective as face-to-face instruction (Means et al., 2010). Many implications for K-12 blended learning can be seen as a result of the report, the largest being a need for more rigorous research. According to Means et al., "Various online learning implementation practices may have differing effectiveness for K-12 learners than they do for older students" (p. xviii). The lack of rigorous online and blended learning research involving a K-12 population is a hindrance to districts desiring to implement new programs.

A Blended Learning Taxonomy

Staker and Horn (2012) stated, "In emerging fields, definitions are important because they create a shared language that enables people to talk about the new phenomena" (p. 1). The Innosight Institute attempted to create a blended learning taxonomy to combine elements of prior research in order to facilitate the advancement of the field. One of the goals of the report was to create "flexible definitions so that they can still be useful even as the field continues to innovate" (p. 1). Observations from more than 80 K-12 programs and input from approximately 100 educators were used to develop the blended learning taxonomy (Staker & Horn, 2012).

The rapid advancement and availability of educational technology can distort what is and is not blended learning. Staker and Horn (2012) provided the following definition for blended learning:

> Blended learning is a formal education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and/or pace and at least part at a supervised brick-and-mortar location away from home. (p. 3)

Several distinctive components can be found in this definition. Student control over place, time, and path is necessary to distinguish between blended learning and technology-rich instruction. Supervision and learning away from the home are necessary to distinguish between a blended learning and a fully online situation. Furthermore, a blended learning program should include a connection between the various modalities involved in the program.

According to a 2011 report from the Babson Survey Research Group, a traditional course is one that includes no online technology, and a web-facilitated course uses online technology for up to 29% of the content delivered (Allen & Seaman, 2011). Furthermore, a web-facilitated course may use a course management system (CMS) or webpages. A blended learning course delivers between 30% and 79% of its content online and typically has a "reduced number of face-to-face meetings" (p. 7). Online courses deliver over 80% of the course content online and "typically have no face-to-face meetings" (p. 7).

Though attempts have been made by organizations such as the Innosight Institute to mainstream a blended learning taxonomy in order to enhance research in the field of

blended learning (Staker & Horn, 2012), there are still a large number of generalizations are developed and published using a different means of classification, none of which can be deemed inaccurate. Herein lies the difficulty in attempting to improve the existing body of K-12 blended learning research.

Four models of blended learning have emerged over the course of the past decade (Christensen et al., 2013; Staker & Horn, 2012). Entities such as the Christensen Institute have attempted to describe these models in order to strengthen and assist implementation efforts. The existence of these models can serve as a means of strengthening blended learning studies by attempting to classify blended learning programs using the following four models: rotation, flipped-classroom, self-blend, and enriched-virtual model. It is important to note that the original report was amended in a later report that replaced the self-blend model with an a la carte model.

Rotation Model. Staker and Horn (2012) defined the Rotation Model as "A program in which within a given course or subject (e.g., math), students rotate *on a fixed schedule or at the teacher's discretion* between learning modalities, at least one of which is online learning" (p. 8, original in italics). The Rotation Model allows the teacher to structure the class in such a way that traditional instruction is used in a variety of methods as long as some element of online learning is used. The Rotation model includes four sub-components: Station-Rotation, Lab Rotation, Flipped-Classroom, and Individual-Rotation. Station-Rotation signifies a rotation format in which students rotate within the classroom. Lab-Rotation includes rotation throughout the campus, i.e., computer labs. The Flipped-Classroom allows students to receive instruction via the Internet and outside

of the classroom. Individual-Rotation denotes a situation in which students rotate

individually between online learning and traditional instruction.

Flex Model. Staker and Horn (2012) defined the Flex Model as "A program in

which content and instruction are delivered primarily by the Internet, students move on

an *individually customized, fluid schedule* among learning modalities, and the teacher-of-

record is on-site" (p. 12, original in italics). The Flex Model is similar to the Individual-

Rotation model, in that schedules are individualized; however, the Flex Model allows for

a fluid rather than fixed schedule. Another difference between the Flex Model and

Individual-Rotation is the deployment of teachers and paraprofessionals. The Flex Model

utilizes teachers and paraprofessionals on a more as needed basis.

Self-Blend Model. Staker and Horn (2012) defined the Self-Blend Model as "A

scenario in which students choose to take one or more courses entirely online to

supplement their traditional courses and the teacher-of-record is the online teacher.

Students may take the online courses either on the brick-and-mortar campus or off-site"

(p. 14). The Self-Blend Model allows schools to offer traditional courses, and students

decide which online courses to take. The fully online courses do not signify a whole-

school experience, thus the Self-Blend Model still falls under the category of blended

learning.

Enriched-Virtual Model. Staker and Horn (2012) defined the Enriched-Virtual

Model as "A whole school experience in which within each course (e.g., math), students

divide their time between attending a brick-and-mortar campus and learning remotely

using online delivery of content and instruction" (p. 15). In this scenario, students do not

pick and choose online courses, as in the Self-Blend Model. Also, students do not attend

classes on campus every day, as in the Flipped-Classroom Model. This is a whole school experience similar to a virtual school with the addition of face-to-face support.

Recent Empirical Studies with a Blended Learning Emphasis

Two studies were selected for inclusion in this section of the review. Both studies involve the perceptions of teachers in a blended learning environment. A third study was included specifically for valuable insights regarding the blended learning implementation process. In accordance with the established lack of empirical data regarding K-12 blended learning, these three studies were conducted at the postsecondary and tertiary levels. This researcher opines that comparing postsecondary teacher perceptions with K-12 teacher perceptions is acceptable and less compromising than a comparison of K-12 students with postsecondary students.

Bijeikienė, Rašinskienė, and Zutkienė (2011) conducted a study at the Centre of Foreign Languages at Vytautas Magnus University in order to analyze the experiences of teachers in computer-assisted language courses, as well as to explore teachers' attitudes toward blended learning. The focal point of the study was four English courses taught using a combination of online and face-to-face language instruction. The study provides valuable information regarding the experiences of teachers in a blended environment. However, it uses a single site, and the participants are exclusively foreign language teachers.

The blended learning environment involved face-to-instruction in a computerized language learning laboratory and included information and communication technology (ICT) for interactive study activities. The online portion of the course was built using *Moodle*, an online course management system, included video lectures, audio records,

chat rooms, and discussion forums. According to the report, more than 20% of instruction was provided using *Moodle* (Bijeikienė et al., 2011). This is an example of the incongruity among the blended learning empirical research. According to most of the current research, the blended learning cutoff is 30% when content is delivered online (Allen & Seaman, 2012). However, since no official standard exists presently, this study was still considered valuable to this literature review.

Bijeikienė et al. (2011) noted that the format used for this study was qualitative in nature, combining survey research and interviews. The research involved 24 respondents and was conducted in three stages. The first stage involved the collection of the respondents' experience levels regarding the technology that was used in the study. A short questionnaire was utilized to collect data. Both the second and third stages were conducted after the courses were taught. A questionnaire was used for the second stage as well, with questions focusing on the teachers' attitudes toward the blended learning aspect of the courses. The third stage utilized an informal interview, which was conducted to collect a deeper understanding of the teachers' experiences during the course.

According to Bijeikienė et al. (2011), the results revealed a high level of experience among the respondents regarding technology use. Conversely, the teachers claimed that increasing the technological proficiency also would increase the effectiveness of blended learning programs. Overall, the teachers spoke favorably about blended learning and the increased use of technology in the courses. The interviews produced favorable comments regarding "convenience of access," "the learner-centered approach," and the "communicative approach to language learning" (p. 125). The

teachers felt the reduced face-to-face class time was the most significant drawback to blended learning. Furthermore, the teachers felt that students were less motivated to participate in online discussions and chats. Suggestions for improvement included the elimination of technical problems or shortcomings regarding the integration of technology into the course, as well as increasing the technical proficiency of the participants.

Benson, Anderson, and Ooms (2011) conducted a case study to explore the adoption of blended learning in a business school from the faculty's perspective. The study attempted to capture faculty perceptions of blended learning, faculty attitudes toward blended learning, and current faculty practices regarding blended learning. The results from this study provide valuable insights relative to faculty opinions on blended learning. Furthermore, the findings serve to improve future blended learning initiatives.

The Benson et al. (2011) research utilized a case study format consisting of semi-structured interviews. A purposive sampling technique was used to select 16 postsecondary faculty members to participate in the study. Pilot interviews were used to adjust the interview schedule. Analysis consisted of "focusing on specific questions relating to innovation, perceptions of blended learning and attitudes to technology" (p. 146). The quotations selected from initial analysis were categorized according to differences and similarities. The researchers noted that the analysis method hindered generalizability and objectivity, but the results provided a rich description of the experiences of blended learning teachers.

One interesting conclusion drawn from the Benson et al. (2011) study was that "Blended learning is not understood uniformly by academic staff, and a mixture of its

definitions exist in this case study" (p. 147). Based on the findings, faculty perceptions were favorable toward blended learning. Additionally, findings included a reinforcement of faculty concerns regarding the amount of time needed to support blended learning on behalf of teachers. Also, several faculty members reported that technology was prone to failure. However, among the participants, "It was rare to find views that were totally against using technology" (p. 149). Overall, despite the faculty's support for blended learning, face-to-face instruction was still considered more effective than combining technology.

In addition to the development of themes, Benson et al. (2011) developed and described three distinct approaches to blended learning based on the input of the faculty participants. The first approach was titled "technology is all" (p. 151). This approach is extremely favorable toward technology and its many new and exciting applications. This type of teacher will strive to include as much technology as possible into the course. The tradeoff is that teachers in this group will value technology above developing a strategic means of implementation that supports student learning.

According to Benson et al. (2011), the second approach was titled "bolts-on" (p. 151). This group favored existing teaching practices above technology. Technology was used in addition to current practices to improve student learning and never used as a substitute. In addition, this group was more likely to blend non-technological experiences, such as workshops, rather than technology into their courses. The bolts-on group used technology to add variety to instruction and was the largest group in the study.

The third approach was titled "purely pedagogic" (Benson et al., 2011, p. 151). This group focused on teaching pedagogy above all else, followed by student learning. Technology would be used only when deemed to be the best approach to support pedagogy and student learning. No concern was noted among this group regarding learning new technologies. However, technology would be included with activities when needed.

Recommendations from this study included addressing time concerns early in the implementation process, as well as focusing the faculty's attention on innovations most likely to benefit learning. Faculty members are more inclined to use technology when the benefits are foreseeable. The researchers identified fostering positive faculty attitudes, providing resources and support, and helping the faculty connect with best practices as challenges for blending learning implementation plans at the postsecondary level (Benson et al., 2011).

The findings from both studies (Bijeikienė et al., 2011; Benson et al., 2011) suggest teachers share a favorable approach toward blended learning and technology. Both studies identified a concern regarding the amount of time required to teach a blended learning course. In addition, both exuded a confirmation of the lack of uniformity among blended learning approaches. This is not to say that these studies do not reflect best practice, confusion will remain among educators participating in blended learning programs that exhibit extreme differences in their approach. However, the information attained in these studies regarding the attitudes and perceptions of teachers is vital to the development of implementation processes that are supportive to the needs of teachers.

Werth, Werth, and Kellerer (2013) reported on a study that focused on the impact of blended learning has on high school teachers and students. The study took place in Idaho, and 145 teachers responded to the electronic survey. Five areas of blended learning were explored: general uses, student academic achievement, student engagement, communication, and teaching impact. One of the goals of this study was to provide insights for developing blended learning programs.

According to Werth et al. (2013), the respondents who had experience with blended learning were asked 11 questions regarding various aspects of blended learning. Those who had no prior experience provided information about barriers to implementing blended learning. Major findings included positive correlations between self-paced learning and student work quality, student interest level during instruction, student excitement level during class, and student perseverance. Furthermore, teacher innovation levels were positively correlated with ability to provide one-on-one instruction, teacher self-confidence, monitoring student learning, and teaching enjoyment.

Werth et al. (2013) reported that teachers who had implemented blended learning were asked to provide suggestions for future implementations of blended learning. The primary response involved making preparations for the large amounts of time required for facilitation. Respondents also claimed that blended learning presents many initial difficulties; however, enduring through the struggles is "well worth the effort" (p. 19). Regarding lesson preparation, respondents suggested the development of some lessons in advance, but teachers should plan to develop lessons as the year progresses. Respondents also suggested that taking blended learning courses would help with implementation ideas as well as collaborating with other blended learning teachers.

Section Summary

The preceding section explored the available blended learning literature, focusing on the K-12 level. It is evident that a lack of research exists regarding the many facets of K-12 blended learning. Research among postsecondary education entities is favorable toward blended learning. Furthermore, issues regarding the terminology and classification of blended learning components have potentially confounded much of the available research. Therefore, it is important that future studies provide more clarity or adhere to the more popular definitions and delineations furnished by the Christensen Institute. The empirical studies provided essential understandings: a lack of uniformity exists in blended learning approaches, the role of the teacher is important to the implementation process, and blended learning is time consuming.

Summary

According to Disruptive Innovation Theory, disruptive innovations and entrant companies eventually can topple market leaders under the appropriate conditions. In education, online education is disruptive and according to Christensen et al. (2013), may eventually provide over half of the education courses offered to students. Blended learning is considered a hybrid innovation; under a different set of circumstances, a hybrid innovation can outperform both a disruptive innovation and the original technology. Thus, blended learning may surpass both online course offerings as well as traditional course offerings. Teachers reactions to blended learning as well as their implementation of blended learning in the classroom, will determine its survival as an innovation.

Organizational change is a complex process. Leadership should approach change with a clear understanding of the process, as well as a model or framework that serves as a guide (Evans et al., 2012; Fernandez & Rainey, 2006) and a stable, consistent environment (Nash, 2012). Change facilitators should focus on capacity building among teachers and staff (Fullan, 2001). The change process should consider the concerns of individuals who are experiencing change (Hall & Hord, 2011) in order to break down the barriers to change (Rosenberg & Mosca, 2011) and should manage resistance (Berkovich, 2011; Fullan, 2001; Fullan, 2008; Kotter & Schlesinger, 2008; Smollan, 2011). The concerns of teachers plays a critical role to the implementation of innovations.

Teaching with technology is an expanding field of literature. The Internet has changed the dynamic of educational technology. The Digital Divide is decreasing (DeBell & Chapman, 2006), but the nature of the divide is shifting to efficacy rather than access (Hawkins & Oblinger, 2006; Hargittati, 2010; Warschauer & Matuchniak, 2010). The Internet has influenced the creation of educational materials (Allen & Seaman, 2012) and has provided a platform for free educational courses (Allen & Seaman, 2013). The propensity to use social networking sites (Bell & Bull, 2010; Prensky, 2010) has affected students' social skill development (Zorofi et al., 2011), as well as students' motivation (Silius et al., 2011). Educational reform efforts are focused on developing appropriate strategies for integrating technology into the classrooms; hence, the development of the partnering strategy (Prensky, 2010), as well as the focus on personalized learning (Patrick et al., 2013). The role of the teacher in the technology-rich classroom is evolving; however, evidence from empirical reports asserts that the teacher remains a central

component to innovation implementation (Janicki & Chandler-Olcott, 2012; Lu &
Overbaugh, 2009).

Blended learning is a relatively new educational innovation. Much of the
empirical data have been gathered from studies conducted at the postsecondary level, and
there is a lack of rigorous studies exist at the K-12 level (Means et al., 2010). Staker and
Horn (2012) created a blended learning taxonomy to help guide implementation efforts
and future studies. Empirical studies provided some insights as to the concerns of
teachers implementing blended learning at the postsecondary level. Bijeikienė et al.
(2011) reported that teachers are concerned with their technological self-efficacy and the
propensity for technical failures; and Benson et al. (2011) claimed that teachers are
concerned with the amount of time involved in facilitating a blended course, as well as
the frequency of technology problems. Furthermore, empirical evidence shows that
teachers find blended learning to be a favorable practice; however, a lack of uniformity
exists in the research practices (Benson et al., 2011; Bijeikienė et al., 2011). Due to the
increasing implementation and use at the K-12 level, the concerns of teachers should be
evaluated in order to strengthen implementation strategies.

According to the literature, organizational change, teaching with technology, and
blended learning converge on two main points: (1) The expansion of educational
technology has created conditions favorable for blended learning at the K-12 level, and
(2) The concerns of the teachers during the change process are critical data needed to
improve implementation strategies. A critical component of blended learning is the role
of the teacher, who must learn to utilize new technology and employ the technology as
part of an effective instructional strategy to fulfill the requirement of the hybrid

innovation according to Disruptive Innovation Theory. It is necessary to explore the

perceptions of K-12 teachers who are transitioning from traditional instruction to the

blended learning environment in order to extract qualifying information that can enhance

the body of blended learning and organizational change literature, as well as strengthen

future implementation efforts at the district level.

CHAPTER III: METHODOLOGY

Introduction

This is a phenomenological study of high school teachers' perceptions of the transition from a traditional instructional strategy to a blended learning instructional strategy. The study utilized a virtual focus group (VFG) composed of teachers who taught a blended learning course in an urban school district in a southern state during the 2012-2013 school year. The objective was to capture and interpret the meaning of the transition from traditional instruction to blended learning, as experienced by urban high school teachers. This study was guided by the following central research question: How do high school teachers perceive the transition between traditional instruction and blended learning?

This chapter is divided into eight sections: Research Questions, Research Context, Research Design, Population, Instrumentation, Procedures, Trustworthiness of the Study, and Summary. The remainder of this chapter presents the methodological procedures and methods used to conduct the study.

Research Questions

The following research questions guided this phenomenological study:

1. What concerns exist among teachers in the district who are transitioning to blended learning instruction?

2. What do they perceive as barriers to the implementation of blended learning as an instructional approach?

3. What do they perceive as facilitators to the implementation of blended learning as an instructional approach?

Research Context

The school district used as the basis for this study serves 81,033 students (82
Pacific Islander; 116 Indian; 3,107 Asian; 13,769 Hispanic; 25,800 White; 36,503
African American) in 134 schools. There are 56,533 students classified as economically
disadvantaged, and 10,055 students are classified as English Language Learners (ELL).
The district includes 28 high schools serving 19,895 students. The school district's vision
specifies that all high school students will be college ready upon graduation. The school
district purchased Blackboard in accordance with an initiative to provide an online
component to every class offered to students in order to meet the district vision's college
readiness component. Advanced Placement (AP) and International Baccalaureate (IB)
teachers were chosen to pilot the blended learning program in the school district during
the 2012-2013 school year. The initiative consisted of an orientation component, design
component, and "Go Live!" component. The orientation component was to be completed
by participating teachers in August 2012, the design component was to be completed by
participating teachers in December 2012, and the initiative's "Go Live!" component
began in January 2013. Participating teachers were expected to use Blackboard in
conjunction with classroom instruction throughout the spring semester of 2013.

Research Design

Denzin and Lincoln (2013) asserted that qualitative research "involves an
interpretive, naturalistic approach to the world" and can "study things in their natural
settings, attempting to make sense of or interpret phenomena in terms of the meanings
people bring to them" (pp. 6-7). Creswell (2013) expanded upon Denzin and Lincoln's
explanation by stressing the importance of philosophical assumptions and theoretical

frameworks guiding the interpretive process. The current study was designed to interpret the meaning of change and blended learning from the perspective of high school teachers; therefore, a qualitative approach was chosen to facilitate this study.

This research was informed by Christensen's (1997) Disruptive Innovation Theory, which was used to explain the relationship among blended learning, educational change, and teacher practice. It is important to have some underlying assumption to explain how humans react with their environment. This study utilized a humanistic philosophical approach. Moss (2001) stated the following:

The Humanistic movement in psychology has emphasized the search for a philosophical and scientific understanding of human existence that does justice to the highest reaches of human achievement and potential. From the beginning, humanistic psychologists have cared deeply about what it means to be fully human and have sought pathways and technologies that assist humans in reaching full humanness. (p. 5)

As this study focused on the lived experiences of teachers, the assumption was that teachers act according to their individual desire to maximize potential.

Christensen et al. (2008) found motivation to be a "catalyzing ingredient for every successful innovation" (p. 7). Motivation can be divided into two categories: extrinsic and intrinsic. External influences, such as rewards, serve as extrinsic motivation in order to better perform. According to Pink (2009), extrinsic motivation improves performance in standard tasks, where creativity and abstract thinking are not a requirement. Christensen et al. (2008) claimed that economic influences, such as the need for more engineers in order to compete in the global economy, to be extrinsic motivators.

However, as economic conditions change, economic extrinsic motivators are less influential. Conversely, intrinsic motivation is the internal desire to better perform. Intrinsic motivation is more valuable to the sustainability of education.

In addition, this study used a framework designed specifically for interpreting an individual's experience with the process of change. Hall and Hord's (2011) Concerns Based Adoption Model (CBAM) addressed the "personal side of change" (p. 265) and focuses on the individual. The CBAM consists of three diagnostic dimensions: stages of concern (SoC), levels of use (LoU), and innovation configurations (IC). The diagnostic dimensions serve as a means of measuring the progress of change across an organization. This study focused on the SoC dimension, which served as an underlying framework for the development of the interview questions. Furthermore, the SoC provided an additional means of data analysis in order to focus particularly on the concerns of teachers.

A phenomenological approach was used in this study to collect and analyze data in order to capture the essence of the phenomenon. According to Moustakas (1994):

Phenomenology, step by step, attempts to eliminate everything that represents a prejudgment, setting aside presuppositions, and reaching a transcendental state of freshness and openness, a readiness to see in an unfettered way, not threatened by the customs, beliefs, and prejudices of normal science, by the habits of the natural world or by knowledge based on unreflected everyday experience. (p. 41)

The perception that individuals seek to maximize their potential strengthens a study focused on expanding instructional horizons. Moustakas stated, "Perception is regarded as the primary source of knowledge" (p. 52).

Phenomenological studies begin with *epoche*; hence, the world must be removed from the phenomenon, and the phenomenon must remain bracketed within the epoche to lay the groundwork for the study (Moustakas, 1994). The current study used Hall and Hord's (2011) SoC construct as a means of bracketing the epoche in which the phenomenon occurs. Creswell (2013) stated, "Phenomenologists focus on describing what all participants have in common as they experience a phenomenon" (p. 76). The current study treated both the change process and blended learning as a single phenomenon experienced by the participants. The essence of the phenomenon was derived from the descriptions of the participants' experiences.

Population

A phenomenological study requires that participants "must be individuals who have all experienced the phenomenon being explored and can articulate their lived experiences" (Creswell, 2013, p. 150). The population for this study included all high school teachers ($N = 122$) in the school district who participated in the transition from the traditional to blended learning approach during the 2012-2013 school year. This included all participants required to attend training in preparation prior to the beginning of the 2012 fall semester and excluded any participant who was not required to attend training or was hired during the summer of 2012. Glesne (2011) stated, "Accessing the perspectives of several members of the same social group about some phenomena can begin to say something about the cultural patterns of thought and action for that group" (p. 8).

Several important characteristics existed within this population. First, the entire population was conveniently accessed via email. Second, the teachers represented a

diverse set of high schools, each with a unique population of students. Third, the teachers represented a number of academic disciplines, each with a unique set of academic standards. Fourth, each teacher was unique regarding background and experience. Finally, each member of the population possessed the same amount of training and support provided by the district regarding the implementation and use of blended learning.

Sample

The sample was constructed using a stratified purposeful sampling technique in order to "purposefully inform an understanding of the research problem and central phenomenon in the study" (Creswell, 2013, p. 156). Furthermore, Denzin and Lincoln (2013) noted that constructivist qualitative researchers use purposive sampling to "seek out groups, settings, and individuals where (and for whom) the processes being studied are most likely to occur" (p. 48). Though convenience allowed direct access to the entire population, it was necessary to limit the sample size to 10 participants in order to stratify the sample and analyze the data within the time frame of the study.

The sample size was set at 10 participants by selecting 5 males and 5 females. The participants represented at least 5 high schools from the population described above. Further demographic stratification was considered based on the number of volunteer participants. An initial invitation was sent to the entire population describing the study and requesting volunteer participants. A sample was selected from among the volunteers who responded to the initial invitation. Sample participants were notified via email and invited to participate in the online focus group.

Participants were informed that, in the event a participant chose not to participate, a suitable replacement would be selected from among the remaining volunteers. Furthermore, if a participant decided not to participate after the online focus group had commenced, that individual's contributions would be eliminated from the study and a suitable replacement would be selected and invited to participate. The researcher was able to maintain a sample size of 10 participants, including 5 male and 5 female volunteers. The sample represented the following academic disciplines: AP Biology, AP English, AP Calculus, AP Statistics, IB Math, IB Geometry, IB Psychology, IB Theory of Knowledge, IB Art, MYP English, and IB English III. As most of these teachers were using blended learning for the first time, further attention to demographic factors was not considered. Furthermore, the schools represented in this study were deemed to be similar with respect to size and demographics.

Role of the Researcher

Creswell (2013) stated, "In some forms of phenomenology, the researcher brackets himself or herself out of the study by discussing personal experiences with the phenomenon" (p. 78). Furthermore, bracketing places this researcher's experiences aside from those of the participants and allows for the participants' experiences alone to construct the essence of the phenomenon. The researcher possesses significant experience with blended learning as a student. Similarly, as an employee of this school district, the researcher was required to participate in the blended learning initiative and has acquired a working experience of blended learning as an instructor. However, as the researcher was hired during the summer of 2012, no training was attended; and this researcher does not belong to the population used in this study. The experiences of the researcher served as

only a means of interpreting the experiences of participants and did not dictate the direction of data analysis. Marshall and Rossman (2011) stated, "The primary advantage of phenomenological interviewing is that it permits an explicit focus on the researcher's personal experience combined with those of the interview partners" (p. 148).

<div align="center">

Instrumentation

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The primary method of data collection in the current study was a VFG. The participants accessed the discussion questions as part of a VFG. The 12 focus group items were created based on the content and structure of Hall and Hord's (2011) Stages of Concern construct. The instrument was reviewed by the Committee Chair for this study prior to seeking Institutional Review Board (IRB) approval from Western Kentucky University. An expert panel review was conducted following IRB approval. Feedback was incorporated into the instrument prior to conducting the study.

Instrument Development

Siedman (2006) stated, "At the root of in-depth interviewing is an interest in understanding the lived experience of other people and the meaning they make of that experience" (p. 9). Moustakas (1994) added, "The phenomenological interview involves an informal, interactive process and utilizes open-ended comments and questions" (p. 114). In order to develop an instrument blending the SoC with phenomenological methods, it was necessary to separate the categories of the SoC and develop open-ended questions focusing on its individual parts. According to Hall and Hord (2011), concerns can be classified into one of seven categories: unconcerned, informational, personal, management, consequence, collaboration, and refocusing. The interview protocol was constructed to reflect six of these categories in an attempt to isolate the phenomenon from

any outside experience. The unconcerned category was omitted, as all participants were assumed to have had some degree of concern as it pertained to their job requirements.

The first two questions reflected the informational concerns of the participants. The questions were developed to provide an understanding of their training and preparation experience. Q1 provided details regarding the training, and the responses were compared to the intent of training provided by the district. Responses to Q2 provided insight as to the level of knowledge the participant had acquired throughout the training experience.

Q1: Describe the knowledge and training you received regarding the use of blended learning.

Q2: Describe the areas of blended learning in which you need more training.

The next subset of questions was developed to provide an understanding of the personal feelings of the participants toward blended learning. Q3 was expected to provide a rich description of the participants' feelings toward blended learning. Responses to Q4 identified some barriers and facilitators, while defining the extent to which blended learning affects the classroom teacher.

Q3: What are your personal concerns regarding the use of blended learning?

Q4: In your opinion, how does blended learning affect your role as a classroom teacher?

Responses to Q5 and Q6 identified the means by which the participants manage blended learning as an instructional strategy. Q5 was similar to Q3; however, responses to Q5 are expected to produce more detail regarding blended learning procedures. Q6A and Q6B provided detailed insights of barriers and facilitators.

Q5: Describe how you manage the blended learning environment.

Q6A: Describe the barriers to the blended learning process.

Q6B: Describe the facilitators to the blended learning process.

Responses to Q7 and Q8 identified participants' views of the consequences of the transition to blended learning. Q7 was designed to identify the suspected impact of blended learning on the students. Responses to Q8 were most likely impacted by students' verbal feedback in the classroom. These responses remained important, as they reflected the perceptions of teachers regarding student concerns.

Q7: In your opinion, in what ways are students affected by blended learning?

Q8: To your knowledge, what issues or concerns do students have regarding

blended learning?

Responses to Q9 and Q10 described aspects of the level of collaboration within the school. Q9 provided barriers and facilitators regarding administrative support; however, some responses were expected to focus on best practices for blended learning. Q10 provided details based on the verbal feedback of teachers.

Q9: Describe how teachers and administrators at your school support each other

regarding the use of blended learning.

Q10: Describe how other teachers use blended learning in your school.

Responses to Q11 and Q12 provided insights at the refocusing level. Q11 provided the participants' evaluations of the blended learning process in its entirety, as well as reflections about specific improvements made by the participant. Q12 allowed the participant to critique blended learning and provide suggestions for improvement. The

combination of responses from Q11 and Q12 were expected to provide a sense of the

participants' level of commitment to blended learning as an instructional strategy.

> *Q11: In your opinion, how is your approach to blended learning meeting the*
>
> *educational needs of the students?*
>
> *Q12: Describe the changes you would make to the blended learning process in*
>
> *order to increase the educational outcomes of the student.*

Interview Protocol

Dolbeare and Schuman (as cited in Siedman, 2006) created a three-tiered

interview system designed to strengthen the data collected from phenomenological

interviewing. This system was constructed on the premise that the development of

meaning in any event is difficult from the data collected in a single interview. According

to Siedman:

> The first interview establishes the context of the participants' experience. The
>
> second allows participants to reconstruct the details of their experience within the
>
> context in which it occurs. And the third encourages the participants to reflect on
>
> the meaning of their experience holds for them. (p. 17)

Adhering to this system, the VFG consisted of three separate focus group interviews. The

12 questions developed in the previous section have been divided into three subsets, each

consisting of four questions. The questions were categorized according to the following

criteria: context, details, and meaning.

Interview One: Context

What are your personal concerns regarding the use of blended learning?

To your knowledge, what issues or concerns do students have regarding blended

learning?

 Describe the knowledge and training you received regarding the use of blended

learning.

Describe the areas of blended learning in which you need more training.

Interview Two: Details

Describe how you manage the blended learning environment.

Describe how teachers and administrators at your school support each other

regarding the use of blended learning.

Describe the barriers and facilitators to the blended learning process.

Describe how other teachers use blended learning in your school.

Interview Three: Meaning

In your opinion, how does blended learning affect your role as a classroom

teacher?

In your opinion, how is your approach to blended learning meeting the

educational needs of the students?

In your opinion, in what ways are students affected by blended learning?

Describe the changes you would make to the blended learning process in order to

increase the educational outcomes of the students.

In addition to the development of an accurate description of the meaning of this

phenomenon, the current study attempted to answer three specific research questions

cited earlier in this chapter. The research questions were answered from among the

participant responses. Specifically, Q1 provided the foundation for answering RQ1

regarding concerns, and Q6 provided the foundation for answering RQ2 and RQ3 regarding barriers and facilitators. The remainder of the questions provided insights unique to each participant that were categorized according to the research question addressed by each insight, which provided depth to the answers developed for each research question.

<div align="center">**Procedures**</div>

Moustakas (1994) stated, "Every method in human science research is open-ended" and "There are no definitive or exclusive requirements" (p. 104). However, it is necessary to establish some basic methods and procedures to "move a study into action" (p. 104). Moustakas suggested that a study be organized into "methods of preparation, methods of collecting data, and methods of organizing and analyzing data" (p. 104). This section is a description of the procedures used in this study.

Methods of Preparation

According to Moustakas (1994), the first step in phenomenological investigation is to develop a question that focuses on a topic with significance and social meaning. The central research question in this study was the following: How do high school teachers perceive the transition between traditional instruction and blended learning?

Methods of Collecting Data

Approval was requested from the Human Subjects Review Board at Western Kentucky University. Furthermore, approval was requested from the school district participating in this study. No risks were noted for the participants, who were assured that participation was voluntary, data were kept confidential, and they could withdraw from the study at any time. Participant names were maintained by the researcher, but were not

visible throughout the duration of the study. Participants remained anonymous within the group and its activities. All of this information was included in the Informed Consent form that was delivered via email. The participants were instructed to print the form, sign it, and return it via fax or mobile device photo and email. This method was very effective. Several participants opted to photograph the signed consent form and return via email, which alleviated concerns regarding access to a scanner.

The primary data collection method for this study was a VFG, and data were collected via an Internet discussion board. In order to interpret meaning from the social world, it is necessary to "include interacting with people in their social contexts and talking with them about their perceptions" (Glesne, 2011, p. 8). Marshall and Rossman (2011) stated, "The strengths of focus-group interviews are that this method is socially oriented, studying participants in an atmosphere more natural than artificial experimental circumstances and more relaxed than a one-to-one interview" (p. 149). Furthermore, "When the Internet is conceptualized as a site for research, the focus shifts to understanding and analyzing the medium as a central feature of contemporary social life and…ripe for study" (Marshall & Rossman, 2011, p. 25). Blended learning relies heavily on Internet use, and consideration is given to the Internet as an appropriate medium for collecting data. Furthermore, the participants possess the necessary skills for using a discussion board by the nature of their work.

Marshall and Rossman (2011) stated, "Focus-group discussions can be conducted on a dedicated Internet blog that, in effect, creates a 'virtual' focus group, not limited by time or location, such that many participants, from all over the world, can participate" (p. 149). The researcher owned the host website on which the discussion board was located.

The discussion board was password protected, and only the researcher had the ability to modify the hosting website and the discussion board.

After the sample was selected, prospective participants were invited via email to join the discussion board, which occurred within a website built specifically for this study, and password protected. Only the researcher and subjects were able to view responses. Participants were issued three-digit sequence numbers used in place of names to protect participant identity. Each participant completed three interview sessions, each composed of four questions. The length of each interview session depended upon the amount of information the participant chose to include in the answers to each question. However, each interview was designed to be completed in 10 minutes. Each participant was asked to respond to 12 questions, and were invited to comment on the responses of other participants. Furthermore, the researcher attempted to use email to request more detail from specific participants; however, this method was used only once but elicited no response. A section dedicated to email correspondence was included in Chapter V. Responses and comments were extracted from the website via copy function and pasted into Microsoft Excel for data analysis.

Methods of Organizing and Analyzing Data

Moustakas (1994) stated, "The challenge is to explicate the phenomenon in terms of its constituents and possible meanings, thus discerning the features of consciousness and arriving at an understanding of the essence of the experience" (p. 49). Creswell (2013) explained that specific methods of phenomenological analysis exist. Moustakas (1994) advocated two methods of phenomenological analysis: a modification of the van Kaam's method and a modification of the Stevick-Colaizzi-Keen method. Both

modifications require establishing clusters of meaning, textural descriptions, structural descriptions, and a synthesis of the textural and structural descriptions. Creswell (2013) developed a simplified approach based on the Stevick-Colaizzi-Keen method. This method was used for the analysis of data in this study.

First, a detailed representation of the experiences of the researcher was provided in order to remove focus from the researcher's experiences and directly address on the experiences of the participants. Second, the significant statements were compiled and treated with equal importance, which is a process entitled *horizonalization* (Creswell, 2013). The final list was deemed free of repetitive or overlapping statements. Third, the significant statements were grouped into larger categories, or "meaning units" (p. 193). It was important to note the relationship between the meaning units and SoC. As phenomenology attempts to remove prejudgments from the bracketed phenomenon (Moustakas, 1994), the "meaning units" were not classified according the SoC dimension of CBAM. However, the researcher reserved the right to use categories from the SoC when the "meaning unit" was worthy of the title. The CBAM was used as an underlying framework for bracketing the phenomenon; thus, it was possible for meaning units and SoC to overlap.

After the "meaning units" were established, a "textural description" of "what" (Creswell, 2013, p. 193) the participants experienced was constructed. The "textural description" was followed by a "structural description," or an explanation of "how" (p. 194) the experienced occurred. Finally, a synthesis of the "textural" and "structural" descriptions was created. This synthesis provided the "essence" (p. 194) of the

phenomenon. The narrative that describes the essence of the phenomenon is included in Chapter V.

In addition to the phenomenological analysis of the data, a content analysis was conducted to examine the responses for each focus group item. This analysis provided insights as to specific concerns at each of the SoC. Furthermore, a content analysis was conducted using the entire dataset in order to address the three research questions that guided this study. A discussion of these results is included in Chapter V.

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Trustworthiness of the Study

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Lincoln and Guba (1985) reported that objectivity, reliability, external validity, and internal validity represent the trustworthiness of a study. However, the naturalistic paradigm presents challenges to trustworthiness in its original form. Patton (2002) stated, "Any given design reflects some imperfect interplay of resources, capabilities, possibilities, creativity, and personal judgment by the people involved" (p. 12). Lincoln and Guba (1985) proposed an alternate set of criteria for establishing trustworthiness in qualitative studies. Confirmability, dependability, transferability, and credibility become the acceptable criteria for establishing trustworthiness and replace the aforementioned criteria, respectively.

Confirmability and Dependability

According to Lincoln and Guba (1985), confirmability is the level of accuracy in the findings free from biases and ulterior motives or interests, and dependability refers to a study's ability to produce similar results in a similar context. Furthermore, an audit trail is recommended as a means of strengthening confirmability. Maintaining accurate focus group records was inherent to the nature of the current study, as participants typed their

own responses to each discussion question. The transcript for the entire study was available for member checks. In addition, any biases on the part of the researcher have been outlined earlier in this chapter and acknowledged in the first step of data analysis.

Transferability

Lincoln and Guba (1985) noted that transferability is the applicability of findings in external contexts. The researcher must provide enough description for transferability to be likely. The use of open-ended questions, as well as the ability for participants to respond to one another's comments, provided opportunities for collecting rich, insightful data to strengthen the transferability of this study.

Credibility

Lincoln and Guba (1985) stated that credibility is the requirement to establish confidence in the findings of a naturalistic study. The current study employed member checks as a means of establishing credibility. Each participant had the opportunity to review the transcripts from this study in order to confirm the accuracy of their contributions. The researcher ensured participants were represented in a non-biased and ethical manner, as well as provided a synthesis or "essence" that represented the experiences of the participants with utmost accuracy.

Ethical Issues

Prior to conducting this study, Human Subject Review Board approval was obtained from Western Kentucky University. According to Glesne (2011), participants should be informed of the following information. If the study can affect their well being in any way, they can cease participation at any time, and participation is voluntary. Participants were invited to participate in the current study by email. Consent forms were

provided for each. The benefit to conducting a VFG is the ability to protect the identity of each participant. Upon responding to the invitation by email, participants were given a sequence number and password to join the discussion board. This researcher was the only individual capable of determining the identity of each discussion board member. This information was kept in a secure location and was destroyed at the conclusion of the study.

Marshall and Rossman (2011) stated, "The primary ethical issues that may arise in conducting focus-group interviews center on the dynamics of power and influence that may play out in any group" (p. 150). As the participants represented a sample of high school teachers, rank and file was not a concern. Participants were advised to not divulge any personal information regarding identity of self or school while using the discussion board. The researcher was able to screen comments for any deviations from the aforementioned policy and asked the participant to reword his or her response.

Summary

The school district's implementation of blended learning consisted of two pilot iterations before becoming a district-wide initiative. The current study was focused on the first pilot iteration. The participants were trained to use a course management system, as well as design and implement a course during the 2013 spring semester. This study used data collected regarding the participants' experiences throughout their training, as well as the implementation of their blended learning course.

This study was a phenomenological study built upon Disruptive Innovation Theory. Phenomenology was an appropriate method in which to study the experiences of the participants and to attribute meaning to participants' transition from traditional

instruction to blended learning. The population consisted of all AP and IB teachers in the school district who had participated in the pilot iteration of blended learning. A stratified purposive sample was constructed among volunteers who chose to participate in the VFG. The researcher facilitated the virtual focus group as a non-participant, and reserved the right to participate, if necessary, for the sake of refocusing comments on the questions.

Volunteer participants from the sample answered interview questions on a discussion board, as well as commented on the responses of fellow participants. Hall and Hord's (2011) SoC dimension of the CBAM was used as a framework for the interview schedule. The data collected were analyzed using Creswell's (2013) suggested method for phenomenological data analysis. The participants' significant statements were clustered into meaning units, which were synthesized to form a narrative essence of the phenomenon.

The findings lack generalizability due to the qualitative nature of the study. However, the researcher performed necessary procedures to ensure that high levels of transferability, credibility, dependability, and confirmability were met. The qualitative findings contributed to existing bodies of literature in two fields: organizational change and blended learning. The findings of this study are significant to the school district as it implements future iterations of blended learning. The results of this study were shared with the participating school district per their request.

Steps were taken to ensure all participants were treated fairly, and all remained anonymous throughout the VFG. All correspondence between researcher and participant was confidential and handled appropriately. The results were presented in a manner that

protected the anonymity of the participants and schools involved in this study. Chapter IV

will provide a report of the data collected from the current study.

CHAPTER IV: RESULTS

Overview

The current study was a phenomenological approach to examine the lived experiences of teachers transitioning from a traditional instructional environment to a blended learning instructional environment. The study utilized a virtual focus group VFG consisting of a dedicated website in which 10 urban high school blended learning teachers responded to 12 interview items on a discussion board. The interview items were constructed using six of the seven categories from Stages of Concern (SoC) construct of the Concerns Based Adoption Model (CBAM) (Hall & Hord, 2011). The data collected were used to create a narrative representing reactions to transitioning from a traditional instructional environment to a blended learning instructional environment.

The remainder of this chapter is divided into the following sections: Findings, Virtual Focus Group, Concerns-Based Adoption Model, Phenomenological Data, Research Questions, and Summary.

Findings

Data were analyzed using three methods. The first consisted of an examination of the responses for each of the 12 focus group items. The responses to each item were analyzed for content, similar to procedures outlined in the one-legged interview and open-ended format techniques of the CBAM (Hall & Hord, 2011). A narrative relating to each item that highlights significant concerns was constructed and is provided later in this chapter.

The second method involved the creation of a narrative for each participant by combining his or her responses from each item. The data were then analyzed according to

Creswell's modified Stevick-Colaizzi-Keen method (Creswell, 2013). This method consisted of epoche; horizonalization; and drafting a textural narrative, structural narrative, and an essence of the phenomenon for each participant. The results are provided later in this chapter.

The third method considered the data holistically in order to answer the three research questions in this study. The entire data set was considered relevant to each of the research questions. A content analysis of the data allowed the researcher to address each of the research questions. A narrative for each research question is provided later in this chapter.

Virtual Focus Group

One of the features of this study was the use of a VFG to collect data from a group of volunteer participants. The purpose behind the use of a VFG was to conduct a study in the environment for which this phenomenon occurs. The participants in this study responded to a series of 12 interview items organized into three separate focus group interviews. Each of the interview items served as a prompt on a dedicated discussion board. The participants were tasked to read the discussion question and respond to the item appropriately. Furthermore, the participants possessed the ability to comment on the responses of the others. This discussion board was visible to each of the participants in the study.

Participants

The participants in this study were volunteers from a group of approximately 160 teachers who participated in the district's pilot program for a blended learning initiative in an urban school district located in a southern U.S. state. A sample of 10 participants

was selected from this population, which was composed of a variety of ethnicities, experience, content areas, and ages. Demographic data were collected but not analyzed as factors in this study; the sample consisted of five males and five females.

Invitations

An invitation was emailed to the entire population via an email list created from the database of participants in the blended learning pilot study. Access to the database was provided in order to initiate invitations to the study. An email was drafted and sent to each member of the population. The email included the scope of the study, the informed consent document, and the research approval letter from the participating district. Prospective participants were encouraged to respond with a statement of intent to participate.

Participant Responses

As participants responded, a second email was sent to each member who chose to participate. This email included a unique sequence number to use while participating in VFG as well as instructions for completing the VFG. The number of respondents was very low, and only a few participants were available as alternates. One alternate was used in place of a participant who opted out prior to the beginning of the VFG.

Additional Email Correspondence

Questions on behalf of the participants were fielded using emails. A few clarification questions were sent to the researcher as the study progressed. The researcher was able to send the participants the information needed to proceed with the study. Two follow-up emails were sent to specific participants requesting additional information

regarding the participant's responses. One email received a response; the other did not. The researcher assumed this was a result of summer break.

Data Collection

Overall, data collection was successful using the VFG. Participants adhered to the sequence number policy and refrained from identifying individuals or schools in their responses. Each response was screened by the researcher and given approval before being added to the discussion board to be viewed by others. In the event that an identifier was used, the researcher was prepared to ask the participant to respond again without using identifiers. This process occurred via email, and the majority of the responses were approved within 10 minutes of submission. Responses varied in length, and several participants who chose to comment on the responses of others.

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Concerns-Based Adoption Model Data

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The interview items were developed using the Concerns-Based Adoption Model's (CBAM) Stages of Concern (SoC) construct. The collection of this type of data as it pertains to the process of change is reflected in Hall and Hord's (2011) process for conducting one-legged interviews. The results provide a cross section of the participants' concerns as they pertain to the SoC and provide insights as to the nature of this change process. The results follow. (Minor spelling errors have been corrected to facilitate the reading of the quotes. No other modifications have been made to the words of the participants.)

Informational Stage

Question 1: Describe the knowledge and training you received regarding the use of blended learning.

Professional development encompassed the majority of the responses to this item. Many of the participants mentioned some variation of attending a professional development on blended learning. Some expanded on the nature of the training, including the requirement to build their course as part of the training.

A few participants stated some negative concerns regarding the professional development training. One participant stated:

We received a short, in-person demonstration a few months before the 2012-2013 school year began followed by a self-guided tutorial in the learning management system itself. We were then forced to repeat the same material later during the 2012-2013 school year regardless of our performance on that class. Both only covered the basics.

Another participant stated, "I do not call a couple of hours listening to someone talk training or do I accept an online module as training," while another noted, "Every session focused on the same material and repeated the same things."

Some participants noted elements of collaboration and coaching as part of their training. One participant stated, "I received a training for blended learning in small group form at my school." Another stated, "We had a trainer come to our school to work with individual teachers." Last, a few participants mentioned learning to use blended learning on their own terms by "trial and error," "on my own with my students," and "using web resources on college web pages."

Question 2: Describe the areas of blended learning in which you need more training.

Participants offered several areas in which more training is needed, but approximately half wanted examples of successful blended learning practices rather than training. One participant stated, "I need better modeling of a well-constructed blended learning environment." Another stated, "I would love examples of well designed classes." A third stated, "I would like to observe a teacher using blended learning in their class."

One participant claimed, "Building the site was nice but being able to use it in the classroom would be so much better." Two expressed a need for training on grading and assessments in the blended learning environment, and two expressed a need for more time to construct materials. One participant stated, "Really, I don't need more training. I need to know that someone is going to take 10 minutes to help me out over the phone or via email if I have a specific question or want to learn a new skill on Blackboard."

Personal Stage

Question 3: What are your personal concerns regarding the use of blended learning?

Participants provided a variety of concerns in response to this question. Two concerns appeared to be more prominent. Access was the most notable concern among the participants. Six mentioned access to technology to be a concern regarding blended learning. One participant stated, "One of my biggest concerns is access outside of the classroom. Students from lower income backgrounds may not have regular Internet access." Another added, "Some of my students come from very impoverished backgrounds and do not have the technology at home (if they even have a home) to engage in blended learning." However, one participant noted, "I'm sure the access varies depending on the school, but my school has a 90% F/R lunch rate and I haven't found

access to be a significant obstacle." This participant explained that students were given access to computers during the school day. Additionally, one participant was concerned that some of the less motivated students would use the lack of Internet access as an excuse to not complete assignments.

A second notable concern involved teachers' perceptions of student motivation regarding blended learning. One participant stated, "These are teens and pre-teens, not adults. Motivation and focus are not quite at the level required for online learning." Another participant claimed, "Students do not take the courses seriously and they lack the desire to take ownership of their own learning."

A third concern of note involved the use of multiple grade books. Two participants mentioned that having to use the grade book within Blackboard and the district online grade book was a problem. One was specifically concerned that the students would be more confused by the existence of two grade books.

A few concerns, unique to only one participant, were mentioned. One participant mentioned a concern about how courses such as art, music, or physical education could effectively utilize blended learning. Another was concerned with student feedback through discussions potentially misleading math students if their explanations or comments were incorrect.

Question 4: In your opinion, how does blended learning affect your role as a classroom teacher?

Several participants provided thorough explanations on the effect of blended learning on their role as a classroom teacher. Some negative concerns were voiced. For instance, one participant mentioned that blended learning is very time consuming for the

teacher during the initial setup, as well as the stages of monitoring student progress. However, the same participant added that the use of blended learning freed up valuable class time for more in-depth exploration of topics. Another participant stated, "I feel like this is one more thing the district wants me to do, but there is no follow up."

Many of the responses to this question, however, were of a positive nature. Three participants explained that blended learning was changing their role as a classroom teacher. One stated, "Blended learning makes me just another resource for the students' learning. I am there to keep things moving forward and to do the kind of individualized questioning and answering to make students think." Another participant stated, "Blended learning helps make me a more versatile teacher because it allows me to give more options to students." A third participant also mentioned that blended learning allowed the opportunity to offer more learning options to students as a teacher.

Furthermore, two participants mentioned the effect of blended learning on their students in response to this question. One stated that the students were more proactive about using Internet resources, rather than waiting for the teacher to provide them in class. Another noted that it was placing more responsibility on the students.

Management Stage

Question 5: Describe how you manage the blended learning environment.

Many of the participants answered this item by identifying the blended learning tools that they use with their students. The most popular responses combined uploading PowerPoint slides, creating discussion boards, creating announcements, and creating links to additional resources. One participant stated, "I use Blackboard for announcements, discussions, links to other resources, and to maintain copies of

assignments." Another added, "I use Blackboard for multiple-choice worksheet completion, posting PowerPoints from previous lessons, discussion boards, and links to supplementary resources." A third noted, "I use Blackboard mainly to link out to other sites that students can use as references, for tutorials and remediation, and for test review." A few participants mentioned receiving homework assignments but were not specific about the nature of the assignments. One mentioned access issues in response to this question, claiming to not require blended learning assignments to be completed because not all students had access at home. This participant also said that this was more of an excuse used by students than a reality.

Three participants mentioned using blended learning for assessments. One participant claimed to move all of the major course assessments into Blackboard. This participant stated, "I adjust the visibility of certain items to not overload students with too much content presented at once." One participant added, "I have used it to give formative assessments," while another said, "I use it for multiple choice assessments."

Two participants mentioned having ownership issues. According to one, the district requires teachers to forfeit ownership rights of any material uploaded to Blackboard. These two participants reported that they use Blackboard as a link to their resources hosted elsewhere to maintain ownership of their content.

Question 6A: Describe the facilitators to the blended learning process.

A few statements were made by only one individual. One participant mentioned that a strong culture that focused on creativity with course design facilitated the blended learning process. Another reiterated that access was crucial to the process. One participant also mentioned the lack of support did not allow success; however, the

availability of YouTube was instrumental in the training process. Finally, one participant mentioned technical support as a facilitator, and stated:

> I've said this already a million times, but rapid and helpful tech support are absolutely crucial. I went from one of the highest users in my district in 2012-2014 to an infrequent user of Blackboard this past year because of crappy tech support and regular problems with the platform.

This participant is referring to the pilot year, as the year technical support was better, and it seemed to drop off in the following year.

The remaining responses to this item were focused on three major topics: exemplars, coaching, and collaboration. Exemplars and examples were mentioned in a previous item as being beneficial to teachers making this transition. In response to this item, one participant stated, "Seeing finalized exemplar blended learning platforms can prove extremely useful," and another said that "trainings that are focused on design (exemplars)" were needed. Coaching has also was a recurring practice mentioned by participants as being helpful or needed. One noted a need for "personal help through face-to-face training," while another claimed to need "informed, one-to-one guidance when issues arise in the building process." Collaboration also was mentioned as a facilitator. One participant stated, "It helped that several teachers went blended together for the pilot," referring to the fact that most schools had several teachers who were able to work together while using blended learning as part of the pilot program. Another participant claimed the "opportunity to work with someone else to develop course content in Blackboard" was helpful.

Question 6B: Describe the barriers to the blended learning process.

Consistent with responses to other questions, access was again mentioned as a major barrier to the blended learning process. A variety of other barriers were mentioned as well, but access remained the most frequent. One participant said, "Uneven access for students at home prevents the full maturation of the blended learning model." Another stated, "Barriers to blended learning have to do with lack of technology among my students." Access was mentioned by an additional four participants.

A second barrier that was referenced with some frequency was time constraints. One participant stated, "lack of time (for teachers) to plan for face-to-face instruction as well as use Blackboard to its fullest capabilities" was a barrier. Two others mentioned "the initial time commitment" and "time constraints with building my lessons" as barriers to the blended learning process.

One instance of technical support was noted, as well as two instances of technical issues. Loss of ownership was recounted twice as a barrier as well. A lack of positive incentives was mentioned once, as well as lack of support from administrators and the requirement to build an entire course prior to the start of the semester. Additionally, the lack of computer skills among students was listed as a barrier. Finally, teachers' unwillingness to change was reported once as a barrier to the blended learning process.

Consequence Stage

Question 7: In your opinion, in what ways are students affected by blended learning?

Responses to this item were very diverse with respect to wording. The consensus appeared to revolve around the fact that blended learning offers resources and opportunities. An element of differentiated instruction was seen among several of the

responses. Finally, some unique statements qualify a few additional concerns with blended learning.

One participant noted, "Students have the opportunity to access more resources than ever before through blended learning." Another stated, "Blended learning is a great opportunity to challenge the more advanced, self-motivated learners to extend beyond the standards," and "It can help some students take more ownership for their learning, recognizing their own interests and learning styles and taking advantage of those resources." A third participant added, "I think blended learning has a positive effect on students. It exposes them to a multitude of resources and teaching methods, instead of just the traditional classroom." A similar statement was made by another participant: "I think blended learning can expose students to different cultures from around the world. Students are not limited to classroom instruction because they can study anywhere and anything." Finally, one participant mentioned, "Students have the chance to move at their own pace."

Some of the unique responses to this item appeared to focus on the somewhat negative or random effects of blended learning on students. One participant stated:

At the same time, blended learning often becomes more time-consuming for students in that they can no longer "play the game" in the classroom and then do nothing outside of class but rather must be active participants outside the classroom due to the ability of the teacher to monitor access to Blackboard, Edmodo, etc.

Another participant said, "It is appropriate where it is being emphasized: Advanced Placement classes. I do not see it as a realistic tool for the average student, because it

does take a higher level of motivation and time commitment." Finally, one participant's response targeted an aspect that affected teachers, students, parents, and administration. This participant reported:

It will put a significant burden on the after school hours for our students. If every class a student is taking uses blended learning, especially a flipped classroom, how can we expect the students to make it through all the material every night after school? The burden on students and consequently parents is significant and I don't believe support will continue when parents see what is involved.

This statement targets the overall practicality of school-wide blended learning programs.

Question 8: To your knowledge, what issues or concerns do students have regarding blended learning?

Participants offered a variety of student concerns regarding blended learning. Similar to the teacher concerns, access was the most prominent. Seven participants mentioned access as a concern among students. One stated, "Access seems to be the major issue." Another added, "Many students worry about having time to complete blended learning assignments due to lack of technology at home." One participant claimed access to be a concern but also expressed that this was more about studying materials rather than completing assignments. This participant painted a comparison between having to study in front of a computer versus the traditional notebook and claimed that students would rather do the latter, as it's a more appropriately designed system for study.

A second concern among students was that blended learning offers a learning environment different from the norm, and some of these differences affect their learning.

One participant stated, "Some students had concerns that they could not learn when they did not have someone teaching the material to them." Another said that students were expressing their boredom with poorly designed blended learning lessons. One participant noted, "Unless extremely well crafted, students have stated that blended learning is not always compelling."

Another concern among students was the technical skills required to complete blended learning assignments. Several participants expressed that students did not possess the technical skills, such as typing, required to complete blended learning tasks. This was especially detrimental to students completing timed assignments. Similar to this were concerns of a lack of technical skills combined with a language barrier. One participant stated, "Immigrant students are typically far behind other students in computer skills and this adds one more skill barrier along with language to learning whatever concept is being taught."

A small number of participants mentioned concerns regarding technical support and student apathy. The technical support concerns were similar to access in that student use was affected, but were different, in that the solution was improving browser compatibility and mobile device compatibility. Student apathy was mentioned twice among the participants. One stated, "Many just view it as another task," while another said, "This is simply one more thing that they have to do."

Collaboration Stage

Question 9: Describe how teachers and administrators at your school support each other regarding the use of blended learning.

Many of the responses to this item were similar to the responses to Questions 1 and 2 regarding training. The majority of the participants implied that support was primarily issued from the district or central office. Several of the responses included references to individualized coaching, but it was a district-led intervention rather than a school initiative. One participant stated, "We also have a central office person who works with our staff on implementation." A few participants were specific about support in the school building; some responses were positive and some were negative.

One participant stated, "Our school is broken into teams. Each team provides feedback regarding blended learning during meetings." Another said, "Teachers are good about sharing experiences and expertise with each other." A third commented that, "Teachers are also good about working with one another on creating content." A fourth participant stated, "The administration has built more computer labs for blended learning." Some of the negative responses included "Teacher buy-in is not great," "I did not receive any support from administration or other teachers in the building," and "There is not a lot of support from resources in my content area."

Question 10: Describe how other teachers' use blended learning in your school.

Many of the participants claimed that other teachers used discussion boards in some type of configuration. A few teachers mentioned assessments and the flipped classroom model were used by others in their school. Some teachers remarked on the lack of use among other teachers in their school.

One participant stated, "Discussion boards seem to be the most common use." Another added, "Other teachers use only the discussion boards through Edmodo or Blackboard." A third said, "Most used it for responding to readings using discussions."

Finally, one participant's statement offered some insight as to the use of discussion boards; this participant stated, "We have had an administrative-led push to use the discussion boards."

Regarding the use of blended learning for assessments, one participant stated, "A few teachers have used blended learning platforms as hubs for assessments, though this is not the norm." Another commented, "Some teachers use blended learning primarily for assessments." The flipped model uses online learning to deliver content outside of the classroom. One participant said, "Some use a flipped classroom model where students view an online tutorial for 'homework' and then have students complete problem sets in class." Another participant added, "Some tried a flipped classroom model, though that had its own issues." However, a third participant claimed that math teachers were able to use to the flipped model very successfully. Finally, two participants mentioned that there is little blended learning use in their school. One stated, "I cannot answer that question because I was the only teacher in the building using Blackboard."

Two unique statements were made in response to this item. One participant claimed that blended learning was used by few teachers but qualified the statement by saying that "Few use it as an integral part of their course planning." A second unique statement involved the means by which teachers attempted to use blended learning. This participant stated:

> I have observed that often teachers try to do things that are too complex, group assignments for example, early on and the teachers and students get frustrated. I would definitely advise teachers new to Blackboard to start simple until you and the kids get used to navigating the site.

This statement offers additional insight as to the reason for using discussion questions as well.

Refocusing Stage

Question 11: In your opinion, how is your approach to blended learning meeting the educational needs of the students?

The responses to this item appear to blend some of the responses mentioned in earlier items. However, a new topic emerged among the responses to this item: college preparation. One participant stated, "I think when students go to college Blackboard is expected. If everyone is not using Blackboard or other learning platforms, we are not preparing our students for college." Another said, "Also, honestly, more and more colleges are doing online courses, so it is an advantage for them to have struggled through a blended learning platform in high school." A third participant added:

> I feel that exposing students to Blackboard will ultimately help them in college. More and more college courses use a combination of online and in-class experiences. By making blended learning part of my course, I am getting my students used to completing work online.

Finally, a fourth participant stated, "Nonetheless, the exposure is important for postgraduate endeavors."

Several statements insinuated that the participant was not using blended learning to its fullest capacity, but the participant acknowledged the need to improve use in the future. One example of this is:

> Right now I do not think my approach to blended learning is meeting the needs of my students as well as it should be. My course has grown a lot since the

beginning but I am using it more as a resource tool than a blended learning

environment. In the future, I plan to integrate blended learning into my lessons

instead of outside of class assignments.

Another participant stated, "While there is potential for blended learning to offer

expanded educational opportunities, I don't know if what I've crafted is meeting the

needs in a compelling way." A third said, "I currently feel that I am a novice teacher in

using blended learning."

Some unique responses emerged on this item. Two instances of student ownership

of learning were mentioned, but they differed in nature. One participant stated, "They

have to review their results — not me for them. They have to access the materials — not

me for them. They have to initiate their own progress." The second statement regarding

student ownership seemingly had a negative overtone. This participant stated:

Blended learning makes the student more in charge of their learning. The

responsibility of learning is being shifted back to its rightful owner, the learner.

However, until it is able to be enforced, it is just another way for those that have

no desire to learn to not learn — by using excuses.

Finally, one participant stated, "I can now link to movies that the students need to watch

and have them complete virtual scavenger hunts and field trips. Each of these presents

opportunities to my students that wouldn't have been as easy without blended learning."

Question 12: Describe the changes you would make to the blended learning

process in order to increase the educational outcomes of the students?

Many of the participants mentioned a combination of access improvements or

technology improvements on this item. One stated, "Find a way for all students to have

access from wherever they are." Another mentioned, "IT (Information Technology) needs to stop blocking resources that Blackboard needs…better support for all browsers on school computers." A third mentioned, "Improve performance across browsers/devices." A fourth stated, "Better integration across all browsers and forms of technology, including smart phones." A fourth participant added, "More access to online content from school (i.e., don't block Youtube.com, etc.)."

Content ownership also was mentioned several times on this item. One participant stated, "No district mandate that what is used on Blackboard becomes the property of the district." Another said:

Give me back ownership for any materials I create and put on Blackboard — I

will never turn over control of my assets to the district. I will happily give things I

have created to fellow teachers, but not to the district for them to control and use.

A third participant stated, "I deeply agree with the other posters about district control." Beyond content ownership, several responses mentioned some other district policies or requirements that were opposed by participants. One stated, "No mandate that a full year's course must be posted at the beginning of the school year (allowing for a more interactive learning environment that is responsive to students' needs)." Another said, "More freedom on how quickly content must be posted."

A few unique responses were offered on this item. One participant noted a need for "more options on training (not just dates, but content also)" and "examples from different content areas." Another stated, "The district would be required to provide ongoing professional development for teachers and administrators." Finally, one participant said, "Provide top-notch rapid tech support."

Phenomenological Data

The following section includes the phenomenological data collected from this study. The procedures for analyzing the data were outlined in Chapter III and are explained briefly as follows.

Epoche

Creswell (2013) noted that epoche, or bracketing, is necessary in order to employ a "fresh perspective toward the phenomenon under investigation" (p. 80). According to Van Manen (1990), bracketing is defined as "the act of suspending one's various beliefs in the reality of the natural world in order to study the essential structures of the world" (p. 175). It was necessary for the researcher to draft a narrative detailing experiences related to the phenomenon. The researcher taught in the same district as the participants in this study and also participated in the pilot program as well. However, the researcher was not employed by the district at the beginning of the pilot program and, therefore, did not attend the initial trainings. The act of bracketing serves the purpose of separating the researcher's experience from the understanding of the phenomenon. Therefore, an attempt should be made to understand the phenomenon through the detailed experiences of the participants, rather than the researcher's preconceived understanding.

The researcher experienced several of the same concerns, including the facilitators and barriers mentioned by the participants in the study. However, the experiences of the researcher were not strained by a lack of technological expertise. Most of the needed support was back-end support regarding login information. A lack of personal experience regarding technical support, coaching, and even content ownership made it impossible for the researcher to corroborate the participants' responses. However,

the researcher experienced issues regarding limited student access, as this affects many of the students in an urban district.

Horizonalization

Each participant's responses to the 12 focus group items were combined to create a narrative of their experience with blended learning. The narratives were examined, and textural and structural comments were extracted. This process was an attempt to remain true to the procedures in the modified Stevick-Colaizzi-Keen method outlined by Creswell (2013), who stated:

> The researcher then analyzes the data by reducing the information to significant statements or quotes and combines the statements into themes. Following that, the researcher develops a *textural description* of the experiences of the persons (what participants experienced), a *structural description* of their experiences (how they experienced it in terms of the conditions, situations, or context), and a combination of the textural and structural descriptions to convey an overall *essence* of the experience. (p. 80, original in italics)

Textural and structural comments were extracted from the narrative of each participant's experience with blended learning. These statements were synthesized into a textural description followed by a structural description. Statements were included that described concrete components of blended learning into the textural description. Statements were also included that described situational or conditional components of blended learning into the structural description. The essence is a narrative synthesis of the textural and structural descriptions; thus, it is an attempt to capture in words the experience of each individual. The process was conducted for each participant, as well as for the collective

group of participants. The individual results are presented in this chapter. The textural description, structural description, and essence for the collective group are included in Chapter V.

Participant One

Textural Comments. The following textural comments were extracted for Participant One's responses:

- "I can make a basic course with good assessments. I need more time to develop this, and I want to see more advanced course structures using Web 2.0 tools relevant to my content area and grade level."

- "I have moved most of my major assessments to Blackboard."

- "I am trying to make it the hub for most make-up work."

Textural Description. Participant One viewed blended learning as an integral component of the course. This participant has used blended learning to manage make-up work as well as integrating the courses' major assessments. According to this participant, the administration's addition of computer labs in the school building helped with the process.

Structural Comments. The following structural comments were extracted from Participant One's responses:

- "I think it is frankly forcing them to take charge of their own learning more."

- "I believe that it has freed up time for me to spend on other teaching needs."

- "It has reduced classroom clutter, and I spend more time walking around and helping students one-on-one then whole group teaching."

- "They have to review their results — not me for them. They have to access the materials — not me hand it to them. They have to initiate their own progress."

Structural Description. Participant One believed that blended learning creates more ownership of learning among students. Furthermore, blended learning helps the teacher manage the classroom environment as well as individualizing instruction. Blended learning helps teachers manage time in a manner that provides more time for essential teacher tasks.

Essential Narrative. Participant One believed that blended learning is an important component to the classroom. Though not without its technical problems or deficiencies, it has staying power and benefits to many areas of classroom instruction. Participant One viewed the implementation of blended learning as a learning process and utilized the Internet for more advanced blended learning training. Furthermore, administrative support in the form of technology access helped to support the process and to create a better environment for blended learning in the school.

Participant Two

Textural Comments. The following textural comments were extracted from Participant Two's responses:

- "To find current assets to use in time consuming process and requires constant maintenance to make sure the assets are still available and meaningful."
- "I use Blackboard for announcements, discussions, links to other resources, and to maintain copies of assignments."
- "I will never turn over control of my assets to the district."

Textural Description. Participant Two used blended learning as an educational resource. It is time consuming when keeping the course updated but can be used for announcements, discussion boards, and links to other resources. Furthermore, this participant was very cautious to not put created content on the Blackboard website as the district would gain control of the content.

Structural Comments. The following structural comments were extracted from Participant Two's responses:

- "It can help some students take more ownership for their own learning, recognizing their own interests and learning styles and taking advantage of those resources."

- "Ideally, once the assets have been gathered and made available to students, blended learning makes me just another resource for the students' learning."

- "Students benefit from hearing other students' questions and insights, and the teachers' immediate feedback. Some students need the refocusing that comes from a classroom and struggle with a self-directed environment, no matter how good the learning is on the computer."

Structural Description. Participant Two believed that blended learning creates more ownership among students for their learning and changes the role of the teacher to a facilitator for the students' learning. Participant Two also believed that blended learning is only beneficial to the more motivated students. The practice of blended learning eliminates some of the interactions in the classroom that are beneficial to struggling students.

Essential Narrative. Participant Two believed that blended learning can be beneficial for some students. This participant felt that the nature of blended learning creates a situation too far removed from the normal classroom in order for average students to be successful. Furthermore, according to Participant Two, the access issues may compound if no control is maintained over how much time teachers require of students in learning online. Participant Two viewed blended learning as time consuming, but not difficult. This participant currently uses blended learning as an additional resource to the course.

Participant Three

Textural Comments. The following textural comments were extracted from Participant Three's responses:

- "I use discussion boards, and put PowerPoints or more in-depth notes into Blackboard."

- "I know that the program we use allows notes to be made on assignments and such, but I also like being able to make notes within the margins or directly near the issue."

Textural Description. Participant Three viewed blended learning as an extension of the classroom in the form of additional resources, and uses blended learning for PowerPoints and discussion boards. This participant refers to Blackboard as a "program," insinuating it to be an add-on feature rather than an integrated component of the classroom. Furthermore, difficulties were experienced with continuing some of the effective classroom practices.

Structural Comments. The following structural comments were extracted from Participant Three's responses:

- "Although many of the students have cell phones, these devices are not always compatible with the program we are being asked to use."

- "I need more training in implementing in my classroom."

- "I would like to observe a teacher using Blackboard in their class."

- "I would also like more training on using blended learning in an EOC (End of Course) classroom."

Structural Description. According to Participant Three, there are several compatibility issues exist as well as aesthetic issues that make it difficult to fully integrate blended learning into the course. Furthermore, this participant acknowledged a need for training specific to implementing blended learning in the classroom. In addition, the combination of blended learning with end-of-course assessment preparation was identified as an area in need of training as well.

Essential Narrative. Participant Three viewed blended learning as an educational initiative added to the classroom. Similar to Participant Two, it is considered more as a resource than an environment to be created and maintained. However, Participant Three identified specific areas in need of training that could help to move toward the creation of a blended learning environment.

Participant Four

Textural Comments. The following textural comments were extracted from Participant Four's responses:

- "One concern I have about blended learning includes how to effectively blend classes such as PE, Art, or Music that require more physical demonstrations into an online environment."

- "Other teachers in my school use blended learning as a way to introduce a lesson. Then as a class, they go into discussion about what they learned online."

Textural Description. Participant Four viewed blended learning as an additional educational tool to use with the students. It is difficult to conceptualize the integration of this tool with the more movement-oriented classes. This participant utilized the discussion boards and acknowledged that other teachers also use the discussion boards and assessment features, and noted that some of the other teachers use blended learning to introduce a lesson.

Structural Comments. The following structural comments were extracted from Participant Four's responses:

- "I believe blended learning helps make me a more versatile teacher because it allows me to give more options to students."

- "I can reach students who respond well to technology as well as prepare my students for post high school experiences."

- "Right now I do not think my approach to blended learning is meeting the needs of my students as well as it should be."

- "My course has grown a lot since the beginning but I am still using it more as a resource tool than a blended learning environment."

Structural Description. Participant Four believed that blended learning provides more options for students, particularly the ones who are technology driven. Furthermore,

blended learning can be integrated with a variety of teaching strategies. This participant was aware that blended learning is supposed to constitute an environment, but it is only presently used as an additional educational resource.

Essential Narrative. Participant Four was aware that blended learning should transform the learning environment. However, after attending the trainings, there is still much to be learned. Furthermore, this participant expressed concerns on the integration of blended learning with certain courses. Blended learning can have a positive effect on students, but it will take time to reach this goal.

Participant Five

Textural Comments. The following textural comments were extracted from Participant Five's responses:

- "I went to training…using one of my professional days to help me build my Blackboard site."

- "I need more training on how to implement this in my classroom."

- "Building the site was nice but being able to use it in the classroom would be so much better."

Textural Description. Participant Five completed the task of building a blended learning course in Blackboard but is now concerned with implementing the course. This participant viewed blended learning as an additional task for students to complete; and much like other tasks, students may find ways to opt out. Additionally, it would be important to learn how to use this tool in the classroom.

Structural Comments. The following structural comments were extracted from Participant Five's responses:

- "I think that if it was used as the way intended, it would be awesome."

- "Blended learning makes the student more in charge of their learning."

- "However, until it is able to be enforced, it is just another way for those that have no desire to learn to not learn by using excuses."

- "I had students complaining about not having access to the Internet. I know that they were just trying to get out of doing the work, but requiring it seemed unreasonable if they did not have access outside the school."

Structural Description. Participant Five acknowledged that blended learning can be a good thing, and it forces students to take ownership of their learning. Significant changes to the structure of classes could be made, as students will be exploring new content outside of the classroom. The students lean on access issues to avoid blended learning assignments; since access is a viable excuse, there is no reason to require students to complete blended learning assignments.

Essential Narrative. Participant Five was aware that blended learning is a positive force, but sensed many problems on the student side. Blended learning is a task that must be completed. However, more training is required in order to implement the site. This participant believed that access will remain a crutch on which students can lean, and the same types of behaviors will continue. There is no need to require students to complete the assignments, as the access problem will prohibit many students from completing the assignment. The rest may claim to experience access problems as an excuse to not attempt the assignments.

Participant Six

Textural Comments. The following textural comments were extracted from Participant Six's responses:

- "I use blackboard for multiple-choice worksheet completion, posting PowerPoints from previous lessons, discussion boards, and links to supplementary resources."
- "Discussion boards seem to be the most common use, as well as a tool for disseminating additional resources."
- "A few teachers have used blended learning platforms as hubs for assessments, though this is not the norm."

Textural Description. Participant Six viewed blended learning as an educational resource. It can be used for PowerPoints, multiple-choice worksheets, discussion boards, and links to additional resources. Many teachers use Blackboard for discussion boards. Some teachers use blackboard for assessments, but only a few. Most of the features of blended learning can be learned by trial and error.

Structural Comments. The following structural comments were extracted from Participant Six's responses:

- "Unless extremely well crafted, students have stated that blended learning is not always compelling, and as another commenter noted earlier, many view it as just another task."
- "Additionally, it can reduce classroom clutter and better facilitates make-up work procedures."
- "While there is potential for blended learning to offer expanded educational opportunities, I don't know if what I've crafted is meeting these needs in a compelling way."

- "Nonetheless the exposure is important for postgraduate endeavors."

Structural Description. Students prefer blended learning to keep their interest. Otherwise, it has little use. The teacher can benefit from blended learning because it can reduce clutter and make it easy to keep up with make-up work. A potential exists to create more educational opportunities with blended learning; for now, what is currently available will at least prepare students for college blended learning experiences.

Essential Narrative. Participant Six used blended learning as a resource in the classroom. Some of its most basic functions help manage the classroom environment, particularly for students who are absent. Practice can help teachers learn new skills on the Blackboard site. Students desire to be compelled to use the blended learning sites; therefore, teachers must make the sites as intriguing as possible. Otherwise, it is simply something else that has to be accomplished. Blended learning can provide better learning opportunities, but many requirements must be met initially on behalf of the teacher.

Participant Seven

Textural Comments. The following textural comments were extracted from Participant Seven's responses:

- "I have enjoyed blended learning for administering multiple-choice tests and presenting content, to some extent."

- "I'm sure access varies depending on the school, but my school has a 90% free and reduced lunch rate and I haven't found access to be a significant obstacle. There is time during the day or after school for kids to use computers."

- "My main concern involves turning in homework assignments online. I like students to have their homework in a hard copy so we can go over questions, they

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can change their responses, and I can let them use their completed homework for help on a quiz the following day."

- "Kids can figure it out, usually, and for those rare cases, teachers can often just provide other options."

- "It is appropriate where it is being emphasized: Advanced Placement classes. I do not see it as a realistic tool for the average student, because it does take a higher level of motivation and time commitment."

Textural Description. Participant Seven has been impressed with the usefulness of blended learning. Access did not appear to be an issue. It can be used to present new content as well as for assessments. It changes some of the traditional classroom routines, such as homework, because students do not show up with hardcopies of online work. For the most part, the students appear to understand it, and the skills are not easy to learn. However, blended learning is best for Advanced Placement students, or students who have high levels of motivation.

Structural Comments. The following structural comments were extracted from Participant Seven's responses:

- "Although I will say that putting content on Blackboard has changed my kids attitudes — they are less likely to wait for me to clarify something than they are to use a web-based resource that we have used in Blackboard to find an answer/study something."

- "Most of the Advanced Placement teachers that are 'required' to use Blackboard use it very sparingly, if at all. We will help each other out with specific issues, when possible. Overall, the teacher buy-in is not great."

- "Tech support is slow. We use Blackboard, and the tech support has varied widely over the past couple years. Basically, if it takes more than four business hours to get an answer, teachers and students lose buy-in."

Structural Description. Participant Seven believed that blended learning changes the routines of students and teachers to a certain extent. Students learn to acquire information and materials from the Internet rather than waiting for the teacher to initiate everything. This participant did not feel that there was a lot of teacher buy-in. However, blended learning needs solid technical support in order to remain efficient. Without the technical support, blended learning becomes a burden, and teachers must rely on other methods.

Essential Narrative. Participant Seven viewed blended learning as a potential force for positive change in the classroom. The training is adequate, and the students appear to adapt to it. It is more than simply a resource. However, it should be used only at the Advanced Placement level, as the average students may not possess the motivation required to complete blended learning assignments. If the technical support is unavailable, it is not worth the effort. Blended learning environments are hard to build without high quality technical support.

Participant Eight

Textural Comments. The following textural comments were extracted from Participant Eight's responses:

- "Right now, I feel like this is one more thing the district wants me to do, but there is no follow up."

- "I post questions on the discussion board, which requires students to respond at least twice a week."

- "All Advanced Placement teachers were required to complete the online module and start using Blackboard. Apparently, only two people in the building completed the first step. The other teacher just loaded his syllabus online and thought that was sufficient for blended learning."

Textural Description. Participant Eight felt that blended learning is one more thing that must be accomplished. However, no repercussion occurs for not attempting to utilize blended learning. This participant used discussion boards and required students to respond to the questions weekly. Other teachers in the building have uploaded only a syllabus to the Blackboard site.

Structural Comments. The following structural comments were extracted from Participant Eight's responses:

- "I did not receive ongoing support my first year teaching a blended course. I had to learn on my own with my students."

- "I used YouTube to learn how to facilitate discussion boards and how to use Blackboard."

- "I think when students go to college using Blackboard is expected. If everyone is not using Blackboard or other learning platforms, we are not preparing our students for college."

- "I think blended learning can expose students to different cultures from around the world."

Structural Description. Participant Eight believed training and support to be scarce. Blended learning requires the teacher to be a self-starter and find training resources online. The students need to be exposed to blended learning in order to be successful in college. Participant Eight acknowledged that blended learning can offer many diverse educational opportunities for students.

Essential Narrative. Participant Eight felt isolated with regard to blended learning. It is a necessary task, and the students need to be exposed to Blackboard in order to succeed in college. However, no support is available for blended learning. Other teachers are attempting to utilize blended learning, and no training and support is available from administration. It appears to be another initiative that requires more work on behalf of the teacher.

Participant Nine

Structural Comments. The following structural comments were extracted from Participant Nine's responses:

- "Therefore, I use Blackboard mainly to link out to other sites that students can use as references, for tutorials and remediation, and for test review."

- "Others teachers use only the discussion boards through Edmodo or Blackboard. Others have a more varied approach where students sometimes view videos or PowerPoints, read material, and then comment on this via a discussion board."

- "Because my district had all teachers sign a contract stating that any material uploaded to Blackboard becomes the property of the district, I have opted not to use much of the material I have created in Blackboard, choosing instead to use this material in the classroom setting."

Textural Description. Participant Nine viewed blended learning as a helpful resource in the classroom. It can be used for students to find links to additional resources that can help with review for tests. More material can be uploaded but the district will gain control of the content when it is uploaded to the Blackboard site. Some of the other teachers use blended learning for students to access videos, PowerPoints, discussion boards, or readings.

Structural Comments. The following structural comments were extracted from Participant Nine's responses:

- "Blended learning helps me to broaden my students' horizons by using a variety of resources (videos, PowerPoints, articles, online discussions with other students) that we don't always have time to use in the classroom."

- "However, it does take more time on the front end to set up Blackboard and then on the back end to monitor student activity."

- "At the same time blended learning can become more time-consuming for students in that they can no longer 'play the game' in the classroom and then do nothing outside class but rather must be active participants outside the classroom due to the ability of the teacher to monitor access to Blackboard, Edmodo, etc."

Structural Description. Participant Nine believed that blended learning can expand students' educational experiences. The teacher can upload materials that can be accessed by students on their own, even if they do not have time to review materials in class. Setting up the Blackboard site and adding materials requires a lot of time. Also, monitoring the students' progress and activity can be time consuming as well. Allowing

students to access additional resources online helps with test preparation. Students also can become more active participants outside of the classroom.

Essential Narrative. Participant Nine viewed blended learning as a beneficial resource for students and teachers. It can be time consuming, but it will benefit the students in a variety of ways. Even though Participant Nine used it more as a resource, it can become an integral component of the classroom over time. One thing for teachers to be aware of is losing ownership of content that is created and uploaded to the Blackboard website. Blackboard use must continually improve in order to fully integrate it into the course.

Participant Ten

Textural Comments. The following textural comments were extracted from Participant Ten's responses:

- "I have mainly used Blackboard as a centralized location for students to find all of the materials for the class (worksheets, PowerPoints, videos, etc.). In addition, I have used it for formative assessments."

- "Blended learning has allowed me to offer multiple different avenues for my students to get the material."

- "I can now link to movies that the students need to watch and have them complete virtual scavenger hunts and field trips."

- "As one person stated, I know how to use Blackboard. I would love examples of well designed classes."

Textural Description. Participant Ten believed blended learning is a way to transmit information to the students in a variety of ways. This participant uploads class

materials to the Blackboard website in order that students can access them at all times. Blackboard also can be used for virtual scavenger hunts and virtual field trips. Discussion boards and formative assessments also can be accomplished using the Blackboard website. It is not difficult to create a blended learning course, but it is more helpful when there is an exemplar available.

Structural Comments. The following structural comments were extracted from Participant Ten's responses:

- "In addition, it has allowed me to put a little more onus on the students. They can no longer use the excuse that I didn't give them the work."
- "Blended learning allows the teachers to give access to resources that students might otherwise not find."
- "In addition, using blended learning has allowed me to pull elements into my class that would have been difficult otherwise."
- "I feel that exposing the students to Blackboard will ultimately help them in college."
- "In addition, it allows students to move at their own pace (within reason) and can allow teachers to implement differentiated learning a lot easier."

Structural Description. Participant Ten believed that blended learning places more responsibility on the students. The teacher can make the materials available on the Blackboard site, and students are responsible for accessing it. Blended learning allows the teacher to accomplish much more than classroom instruction alone. Students' working online prepares them for college. Blended learning also allows students to work at their own pace.

Essential Narrative. Participant Ten was aware of the many capabilities offered by blended learning. Though it is mostly used as a central location for class materials, this participant has begun to utilize more advanced features of Blackboard. Students are forced to be more responsible in this environment. Furthermore, this participant desires examples of good Blackboard sites and blended learning practices in order to improve the course.

Research Questions

What concerns exist among teachers in the district who are transitioning to

blended learning instruction?

The primary concern among teachers regarding blended learning was access. As some of the course content is to be completed away from the school, student access to the Internet is critical to the success of blended learning. Throughout the responses, the participants alluded to concerns of student access; however, this issue is mitigated somewhat by teachers' contentions that some students have access but use lack of access as an excuse to not do assigned work. The issue of access also can be combined with some of what teachers referred to as technical issues or glitches. For example, some teachers referred to issues of compatibility between Blackboard and specific Internet browsers or mobile devices. This may appear to be a technical problem; however, these issues prevent students from accessing the Blackboard site.

An interesting concern that emerged across several items was the issue of content ownership. Several participants were greatly concerned with the fact that the district automatically controls any content uploaded to Blackboard. According to several participants, this issue causes them to refrain from uploading material; rather, they create

links to content elsewhere. This issue of ownership was present among the responses to Item 12 as a means of increasing the educational outcomes of blended learning.

A third concern emerged regarding the nature of training received. This concern could be seen by viewing the data holistically. Several participants expressed concerns relative to the training. One participant explained that the training consisted generally of useless seminars and training modules. Another stated that some training had to be repeated arbitrarily, while another indicated that many of the trainings were identical and not very helpful. Conversely, several participants mentioned the benefits of finding their own training resources, as they are readily available on the Internet.

What do they perceive as barriers to the implementation of blended learning as

an instructional approach?

Per Item 6A, the participants identified access to be the most significant barrier to the implementation of blended learning. Access exists as both the most significant teacher concern, and the most significant barrier to the implementation of blended learning. The relationship between access as a concern and access as a barrier is significant, particularly for an urban school district, a context in which access might be lower than in other settings.

Access was mentioned in responses on several items. For example, in response to Item 5, in which participants were asked to explain the means by which they manage the blended learning environment, one explained that access to the Internet was used by students as an excuse for being unable to complete assignments. On Item 12, participants were asked to identify changes they would make to increase the educational outcomes of

blended learning. Access was twice mentioned as a means for increasing educational outcomes.

Additional barriers included time constraints and technical support. Both appeared on several items. One participant mentioned technical support on the majority of the items, stating that it was the cause for not using blended learning. Time constraints were mentioned with some frequency. Some statements regarding time were generic, while others were more specific, usually stating course building or student monitoring.

What do they perceive as facilitators to the implementation of blended learning as an instructional approach?

Per Item 6B, the participants identified exemplars, coaching, and collaboration as the top facilitators for the implementation of blended learning. "Example" and "exemplar" were used by the participants verbatim in response to this item. "Coaching" was adopted by the researcher to encompass situations in which a facilitator helped the participants with blended learning. "Collaboration" was adopted by the researcher to represent situations in which participants mentioned working together in training or in practice. Considering the data for this study as a whole, these three items were mentioned in the participant responses to other items as well. Among the three, exemplars appears to be the most prominent.

According to some participants, the professional development lacks sufficient examples of what is expected of the blended learning teachers. Furthermore, several participants mentioned the need for examples specific to their content area, and one desired examples on to integrating blended learning in a class with a state-issued standardized assessment. The mention of examples went beyond the responses on Item

6B. For example, Item 4 inquired as to the areas in which more training was needed. Five participants mentioned the need for examples or exemplars. Some expressed a desire to observe other teachers in the blended learning environment.

Coaching was mentioned by participants in response to several items. The consensus among participants was the suggestion of a district facilitator who could help teachers in both one-on-one and small group settings. The mention of coaching as a positive force was somewhat limited on most items. In most responses, coaching was mentioned without any positive or negative qualifying remarks. Collaboration was noted in most of the responses related to professional development or training. Collaboration also was found in several responses with positive qualifying remarks, most alluding to how teachers who help other teachers.

Summary

This study utilized qualitative methods to examine the transition from teaching a traditional course to teaching a blended course. The participants were urban high school blended learning teachers representing a variety of backgrounds and academic disciplines. A VFG was conducted using a discussion board in which participants responded to 12 interview items.

The VFG obtained mixed results. The participants were able to navigate with little difficulty through the five steps outlined in the instructions. The majority of the participants completed the study without any direct correspondence with the researcher. However, the responses to the interview items varied in length. Some topics generated more thoughtful responses than others. The participants completed the study under the assumption that nothing was explicitly required; therefore, the length of responses and

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time spent completing the focus group interviews were up to the participant. Each appeared to approach the study in terms of answering questions rather than conversing with colleagues. This presented a limitation to the study. Overall, this was a successful configuration for conduct of the study regarding technical support. Furthermore, the nature of the study and the topic upon which the study was built corresponded favorably, adding an interesting degree of community among the participants regarding the phenomenon. However, the degree of interaction among participants did not meet the expectation of the researcher.

The use of the CBAM served two specific purposes. The categories of the SoC construct were used to isolate the phenomenon from the other components of the teaching profession. Second, the construction of interview items using the SoC as a guide elicited responses with implications for improving blended learning implementation. Though participants did not provide a large amount of data in general, their responses were focused and provided specific information useful to the content analysis for each of the SoC.

A textural narrative, structural narrative, and essence of the phenomenon was constructed for each of the 10 participants, which was completed through the process of horizonalization. The common belief among the majority of the participants was that blended learning is an educational resource, not a stand-alone learning environment. Blended learning is seen as a task or series of tasks to be completed, affecting the teacher's time and course planning. However, several of the participants acknowledged their use of blended learning was not ideal and alluded to potential improvements that could be made in the years to come. Chapter V will include a textural description,

structural description, and essence of the phenomenon for the collective group of participants.

A content analysis was conducted on the entire dataset in order to provide insights to the three research questions that guided this study. The content analysis revealed access to be both the number one concern among teachers, as well as the most significant barrier to blended learning educational outcomes. Furthermore, examples of blended learning practices, as well as courses, were determined to be the top facilitators for blended learning educational outcomes.

CHAPTER V: DISCUSSION AND CONCLUSIONS

The Study in Brief

The results presented in this chapter are from a phenomenological study that explored the lived experiences of urban high school teachers transitioning from traditional instruction to a blended learning instructional strategy. The study was informed by Christenson's (1997) Disruptive Innovation Theory and guided by the following Central Research Question: How do high school teachers perceive the transition between traditional instruction and blended learning?

The review of literature explored the following topics: educational change, teaching with technology, and blended learning. Key findings from the literature review suggest that change leaders in the field of education should consider the personal concerns of teachers (Hall & Hord, 2011); the digital divide is growing smaller (DeBell & Chapman, 2006); educational materials have been influenced by the Internet (Allen & Seaman, 2012); teachers cite technical failures (Bijeikiene et al., 2011) and time constraints (Benson et al., 2011; Lu & Overbaugh, 2009) to be obstacles to blended learning; and a lack of rigorous K-12 blended learning studies are available (Means et al., 2010). The results of this study will be discussed, along with the key findings from the review of literature below.

The Concerns Based Adoption Model (CBAM) was used as a model for creating the set of 12 focus group questions, which utilized the Stages of Concern (SoC) construct from the CBAM and were created using six of the seven SoC as a guide. The questions encompassed the Self Concerns, Task Concerns, and Impact Concerns from the CBAM. The data collected from the participants' responses to the focus group questions were

used to provide insights regarding teacher concerns with respect to the CBAM, as well as to contribute to a narrative representing the participants' experiences as they transitioned to blended learning, used for phenomenological analysis.

This study utilized a virtual focus group (VFG) to collect qualitative data from a group of 10 blended learning teachers from a large urban school district, who responded to 12 items using a discussion board. Participants were volunteers from a population of teachers who were required to utilize blended learning as part of a district pilot program for blended learning. The teachers taught either Advanced Placement or International Baccalaureate courses.

The data collected from this study were analyzed using three separate qualitative methods. First, a content analysis was conducted using the data provided in response to each individual focus group question in order to provide insights regarding teacher concerns with respect to the CBAM. Second, a content analysis was conducted using the entire dataset holistically in order to answer the study's research questions. Finally, a narrative was constructed using each participant's responses, and each narrative was analyzed using the modified Stevick-Colaizzi-Keen method described by Creswell (2013). The remainder of this chapter is divided into the following sections: Discussion, Recommendations, and Conclusions.

Discussion

The following section contains the results and discussion from this study.

Theoretical Considerations

The results shed some light on the existence of blended learning with respect to Disruptive Innovation Theory; specifically supporting the notion of blended learning that

exists as a hybrid innovation. Consistent with Christensen et al.'s (2013) Hybrid Theory, several participants indicated that the use of blended learning was beneficial, as it provided more options for students. Based on the findings, a limited view exists relative to blended learning among the participants. Some acknowledged that it is, or should be, a new and improved learning environment. Others highlighted the individual components of traditional education that are supported or function well on the Blackboard platform. Among the responses of participants, however, evidence can be found that blended learning is a combination of traditional instruction and online learning.

The perceptions of teachers, particularly their concerns regarding student access to the Internet, would support the notion that blended learning will likely surpass online learning as an education innovation. By combining the elements of traditional instruction and online learning, an opportunity is available to address access concerns. Furthermore, a few teachers expressed concerns that students need the support of a teacher while learning new material, a notion that discounts the features of a fully online program. Likewise, several participants expressed their intentions to progress toward a more integrated use of blended learning. As blended learning is poised to expand in their school district, the improvements that teachers incorporate will help to solidify its existence as a staple among district educational practices.

Finally, using Disruptive Innovation Theory, an examination of the means by which to appropriately configure blended learning as an innovation, as well as how to approach the implementation of blended learning, reveals that teachers and administrators must consider the notion that blended learning represents the combination of traditional instruction and online instruction to create an entirely new innovation. Thus, support

should be distributed so as to not overload the traditional component or the online component individually. Rather, teachers and administrators should support the innovation of blended learning as a whole to foster the creation of a new learning environment capable of both improving traditional education and possessing the more beneficial disruptive components of online learning. This is consistent with the explanation by Christensen et al. (2008) that appropriate deployment of innovations will affect the overall outcome.

Virtual Focus Group

Creswell (2013) encouraged researchers to use "new and creative data collection methods that will encourage readers and editors to examine their studies" (p. 161). Furthermore, Creswell explained that the use of the Internet for qualitative research can be beneficial. The use of a virtual focus group can allow participation among hard to access groups of individuals, as well as provide flexible schedules for participation. Conversely, some concerns are present. According to Creswell (2013), some researchers are concerned about confidentiality issues. Furthermore, a certain level of technical skill is required to participate and conduct these types of studies. The VFG component of this study obtained mixed results. Successes included functionality, technical support, and meeting appropriate levels of confidentiality. Limitations included a lack of interactivity among participants. However, participants met the expectations of the researcher regarding responses, although the suggestion was made that participants interact with one another, but they did not choose to do so.

Participants were able to respond with ease to the focus group questions. Each was able to manage the speed at which he or she completed the study. The VFG was

available for a week, and participants had control of when they accessed the site, as well as how. The VFG was built on a mobile-friendly platform. Therefore, participants were able to utilize mobile devices to complete the focus group discussion questions if they so desired. The website was constructed using *weebly.com*; and the researcher was able to control all elements of functionality, as well as provide technical support for any problems that arose. Confidentiality concerns proved to be a non-issue. The website allowed participant responses to be viewed via email in order to screen for personal identifiers. After approving the response, it appeared on the discussion board for other participants to view. Each adhered to the policy of using sequence numbers and eliminating the use of school names and other identifications. The responses were collected from the VFG and moved to Microsoft excel for content analysis.

The concerns outlined by Creswell (2013) regarding the use of the Internet for qualitative research were mitigated in this study. However, an unsuspected issue presented itself. A general lack of detail was provided in the responses among many of the participants. In accordance with Hall and Hord's (2011) concerns relative to conducting research using open-ended statements as the primary method for data collection, the participants were inconsistent in terms of the amount of data they provided for each focus group question.

The amount of data collected overall presented a limitation to the study. The participant responses were structured and coherent, but not all participants followed the recommendation to use complete sentences. Some provided responses using bulleted or numbered lists. This type of data was useful, but it was difficult to construct a narrative for the experience of some participants. Furthermore, some took advantage of the ability

to comment on the responses of others. This process benefited a few participants who chose to do so. The ability to see agreement or dissent among participants via the use of the commenting feature of a discussion board is beneficial for data analysis. In the current study, the use of comments did not meet the expectations of the researcher. Based on a favorable amount of website functionality, it is the opinion of the researcher that participants simply chose not to take advantage of this feature.

Research Questions

What concerns exist among teachers in the district who are transitioning to blended learning instruction?

The most significant concern among teachers was access. They expressed this concern many times in several different configurations. As the study was conducted in an urban school district, this was a likely and predictable concern, due to district demographics, as well as the information provided by DeBell and Chapman (2006) regarding access among urban school students. DeBell and Chapman (2006) noted that schools help to bridge the gap by allowing computer access to students who do not have access at home. However, this presents a problem to some blended learning approach models, particularly the flipped classroom model.

Hawkins and Oblinger (2006) reported that more levels exist relative to the notion of the digital divide, and findings in this study confirm that notion. Providing students with a computer at school in response to the lack of a computer at home does not necessarily solve the access problem. Teachers expect students to access their course materials outside of the classroom in order to complete blended learning assignments. Two participants were specifically concerned about the combined amount of time

students would need to access the Internet in order to complete all blended learning assignments. This is a significant concern for districts that plan to implement a blended learning platform in which students will have several blended learning classes concurrently. The technology requirements will expand exponentially, as general access will be an unacceptable solution for lack of technology. Rather, districts will need to ration computer access among students, as well as limit the amount of assignments given to students that require Internet access.

A second concern was the issue of content ownership. The district assumes control over the content uploaded to Blackboard, and several of the participants expressed their disdain for this procedure. The consensus was that it was best to put content elsewhere and link out from the Blackboard course website. This is an unfortunate response to a district policy. The issue of ownership seems to be less of an actual concern of property, as participants did not indicate any intentions to use the material for personal gain. Rather, the participants were simply opposed to the district owning the content. Furthermore, no evidence was found of the existence of an ownership problem among teachers as they discussed the sharing of content. It appears that this issue stems from a general fear of additional district control.

Among the responses, no mention was made of creative commons licensing or copyrighting materials, which are concerns that have arisen among educators who use the Internet to locate materials for use in the classroom. A risk always exists of inappropriately obtaining privately owned content from the Internet, especially considering the amount of private corporation participation in the field of education. These companies must own their educational content in order to be financially sound.

Piracy exists outside of the field of entertainment; private educational organizations must protect their financial interests. It is noteworthy that participants did not appear to be concerned about their personal use of Internet content with respect to obtaining permissions. Rather, the concern existed only with respect to district control over the individually or collaboratively created educational content, devoid of financial speculation.

A third concern was training. According to the participants, the training was available, but many were concerned about the structure and type. Some were unhappy with the online training module approach, while others felt an explanation was lacking regarding what to do in the classroom. The mention of working with other teachers, as well as locating resources on the Internet, suggests a different approach may be more appropriate. Likewise, the participants felt that examples would be beneficial, which is supported by findings from the review of literature. Janicki and Chandler-Olcott (2012) found that teachers were satisfied with professional development regarding the means to create educational websites, but they suggested a need for more specificity about the educational content to incorporate with the new websites.

The implication is that blended learning is mistakenly perceived as a task oriented process. The creation of a blended learning environment appears to be a missing component of the training, or is lost in translation among the participants. Some participants mentioned this aspect of blended learning, but they did not necessarily attribute the knowledge to training. A more beneficial approach to training may be to maximize collaboration among teachers in the same content area, while providing content

specific examples of best practices. The foundational training must focus on the environment aspect of blended learning and capitalize on what it looks like in practice.

What do they perceive as barriers to the implementation of blended learning as an instructional approach?

Access also was the most significant barrier to the implementation of blended learning. According to the participants, students either legitimately do not have access to the Internet or enjoy the inability to use Internet access as an excuse for completing assignments. The implication is that students might frivolously use lack of Internet access where possible in order to avoid assignments, which creates a burden for teachers who try to use blended learning as an instructional approach. The lack of access in most cases would call for an alternate assignment, but the frequent use of alternative assignments would negate blended learning. Implications exist for district policies regarding student work, as the district must support accountability measures on behalf of teachers to enlist student participation.

A second concern was time constraints, which is consistent with studies from the review of literature. Teachers must implement blended learning while continuing to accomplish a myriad of educational tasks. Technology is usually incorporated as a time-saver. However, implications are present in the results of this study that blended learning creates time constraints among teachers. It also was reported that the district required teachers to create an entire course prior to implementation. Some participants expressed concerns with this relating to the amount of time required to plan and construct a course. Furthermore, some expressed a concern that course creation should be progressive, as the needs of students will determine the implementation of blended learning in the course.

This is a legitimate concern due to the emphasis on differentiated instruction and personalized learning in education. In reality, changes to the timeframe for creating courses will not change the fact that blended learning is time consuming. Teachers will need to try to negate access issues, monitor student progress, address support issues, and create content. Time constraints are the sum of many concerns.

What do they perceive as facilitators to the implementation of blended learning as an instructional approach?

The most significant facilitator for the implementation of blended learning was examples, which implies a disconnect between the initial training sessions and what was required of teachers. Examples imply more than mere exemplars. Some participants expressed a need to observe best practices in the classroom setting. The key concern was the confusion among the participants regarding the true nature of blended learning. Assistance was needed in order to connect the creation of a course to the creation of a blended learning environment. The participants desired to see what it looked like. As a facilitator, it would suggest that the availability of examples in various forms would increase the efficiency of district training programs. Coupled with the availability of resources on the Internet, the use of examples would significantly impact the initial stages of the implementation process.

Coaching was a second facilitator. The use of a district facilitator was mentioned throughout the study. No qualifying remarks were associated with the district facilitator. Thus, it would appear that the use of a district facilitator was accepted and necessary, but no mention was made as to the specific benefits on the existence of a district facilitator. This may be a result of the perceived lack of understanding as to what blended learning is

supposed to look like in the classroom. As teachers reported a need for examples, the implication was that confusion exists on what blended learning should look like. As a result, the teachers may not have known how to best use the facilitator.

Collaboration also was noted in most instances associated with trainings or professional development. Positive connotations were present with the mention of collaboration. According to some participants, collaboration was helpful with course creation. Teachers attended trainings and shared resources. The implication was that more emphasis should be placed on the collaboration aspect for the purpose of content creation. Teachers can share ideas more easily with others in the same content area, as the ideas are more likely to be applicable. It would appear to be the same regarding the creation of a blended learning course. The need for content specific examples reaffirms the notion of working in groups organized by content area, which implies that teachers may need to work with teachers from other schools in order to form content specific groups.

Concerns-Based Adoption Model

The results section in the Chapter IV included a summary of the participants' responses to each item. The narrative summary of each item highlighted the concerns expressed by the participants as they pertained to the implementation of blended learning. The following section contains a summary of the concerns with regard to the following dimensions: Self Concerns, Task Concerns, and Impact Concerns. According to Hall and Hord (2011), SoC can be assessed by using one-legged interviews, open-ended statements, or the SoC questionnaire (or a combination). This study utilized a customized instrument, effectively blending all three of the previous tools. Summarizing the results

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using the four original areas of the CBAM is appropriate given that fidelity to the CBAM was not the focus of this study, and the VFG items were based on only six of the seven SoC. However, this treatment of the results provides significant insights and an accurate profile of the concerns expressed on behalf of the blended learning teachers in the district. The researcher believed this to be a logical means of summarizing the results of this study with respect to the CBAM.

Self Concerns. Self Concerns include both the Personal Stage and the Informational Stage. The primary Self Concern belongs to the Informational Stage. This finding was consistent with those of Benson et al. (2011), who reported that teachers struggled to uniformly grasp the concept of blended learning. Many participants were concerned about observing examples of blended learning practices. This does not necessarily suggest a deficiency in the training, although some participants expressed concerns with the training. Rather, it suggests a missing component to the training. In some cases, the participant mentioned a need for examples specific to their content area, which suggests a potential reason for some of the participants using the Internet to find training resources. This is consistent with the findings of Hall and Hord (2011), who claimed change often will occur without substantial progress, as "implementers, change facilitators, and policymakers do not fully understand what the change is or what it will look like when it is implemented in the envisioned way" (p. 43). It is important to remove the ambiguity associated with many educational change endeavors.

In addition to the need for examples, some participants expressed personal concerns suggesting awareness that their use of blended learning was inadequate. The participants' typical remark in this regard was to identify that their blended learning

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practices were not ideal and also to identify a desire to improve the practice in the future. The researcher did not include the latter in the Refocusing Stage, as no qualifying remarks were present to improve. The researcher believed specific improvements would have been characteristic of the Refocusing Stage, but a generic comment on making improvements was not characteristic.

Task Concerns. The Task Concerns area appears to be the area in which most of the participants' concerns lie. Lemke et al. (2009) reported that underestimating the diminishing digital divide was one of five miscalculations made by educators. According to the results from this study, this was not the case. As mentioned in the preceding section, access concerns belong in the Task Concerns area due to their relationship to teachers managing the innovation. Furthermore, access relates to efficiency in terms of the innovations use, and access relates to scheduling as a result of managing school resources to mitigate the lack of access concern. This was consistent with findings from the literature review. DeBell and Chapman (2006) reported that the access concerns would affect urban schools more than those in the suburbs.

Access was only one of the task concerns. Time constraints were mentioned by several of the participants. These concerns appeared to play a role in course design and preparation, as well as in management of the blended learning environment or monitoring of student progress. This result was consistent with findings from the review of literature. Lu and Overbaugh (2009) reported time constraints to be the top barrier to technology integration, followed by technical issues.

Technical concerns, both support and issues, would be classified as task concerns. As mentioned previously, technical issues affect access. Technical support creates a

management and efficiency issue for the teacher. Benson et al. (2011) also highlighted technical issues as a major concern among blended learning educators.

Impact Concerns. This area includes the following three SoC: refocusing, collaboration, and consequence. In considering the dataset in its entirety, only one participant offered responses representative of the refocusing stage. Some of these responses included calls for improvements to the learning system. Regarding collaboration, many of the participants' responses reflected elements of collaboration and coaching. However, these statements provided an inadequate amount of detail to qualify as a concern. However, the mention of these items verified their existence.

Access was one of the primary concerns throughout the study; in several cases, access was directly attributed to students. However, it is the opinion of the researcher that access is not an impact concern. It certainly impacts a student if no Internet access is available, thus no connection to a blended learning course website. However, as a concern, it rests more on the teacher. The results of this study showed access to be a lesser concern to students, as there was an option to not do the work, or to complete a different assignment. Therefore, access affects the teacher's ability to manage blended learning, as well as the district's overall implementation of blended learning. The student, in the parameters of this study, does not appear to be concerned with a lack of access.

Several participants believed that blended learning created more ownership among students regarding their learning. This classifies as an impact concern, although teachers appear to be satisfied with this outcome. Conversely, a few participants' responses suggested that students would easily concede when faced with a difficult situation in the blended learning environment. Examples given included the inability to

Google an answer, which may cause a student to give up. Some students cannot perform without the presence of the teacher or their peers. Another notable consequence was the idea that blended learning prepares students for college. This idea was presented in several configurations, but the common expression was that students would participate in some form of online learning in college. Therefore, it was necessary to expose them to this style of learning in high school. Finally, a few participants expressed the idea that blended learning offers more options to students, i.e., the students could benefit more easily from differentiated instruction.

The use of the CBAM to construct the discussion questions ensured that teachers would provide commentary, though brief, on the concerns associated with the implementation of blended learning. This format also ensured that the participants would examine the implementation of blended learning considering SoC; thus, their responses are a true reflection of the concerns of urban teachers as they experience this transition. One significant feature of this format is that all of the data collected is pertinent and can lead to appropriate interventions that can facilitate future implementations. Furthermore, the commonalities that were identified throughout the responses of the participants, such as technical issues and time constraints, provide information for school leaders for use in developing structures and supports to help teachers make the transition to blended learning. Likewise, access and content ownership concerns are significant among district leaders who seek to develop structures to facilitate district-wide implementation.

The Essence of the Phenomenon

The following section contains a textural synthesis, structural synthesis, and essence of the phenomenon for the collective group of participants in this study. This

section represents a synthesis of the experiences collected from the entire group and is written from the perspective of a teacher who is transitioning to a blended learning instructional strategy in an urban school district. The statements in each of the following three sections are representative of what it means to be a teacher in this transitional situation; thus, it should be considered as an informal narrative.

Textural Description. Blended learning is a task that must be completed. It consists of creating a course on the Blackboard website. Furthermore, any digital educational materials can be uploaded to the course website. PowerPoints, a course syllabus, videos, homework assignments, and study guides are all common types of material that can be placed on the course website. Also, teachers can create a discussion board for the students to respond to questions and to comment on other students' responses. Using Blackboard requires Internet access, which some students will not have.

Structural Description. Blended learning is sufficient for getting materials to students. Once the material is uploaded, the student is responsible for accessing it. However, blended learning can be time consuming, as much time is needed to prepare a course on Blackboard. Furthermore, monitoring student progress also can be time consuming. Another issue to consider is protection of the educational content that is created. The district will gain control of any content that is uploaded to the Blackboard website. Training requirements are associated with building a Blackboard course, and a district facilitator is available if needed. However, few examples of best practices are available in the training, particularly for specific content areas. Most of these resources can be found on the Internet. Technical support is available and necessary to manage the

blended learning environment. However, receiving support in a reasonable amount of time is not always likely.

Essence. Blended learning is difficult to accomplish in the urban school environment. Students do not have access to the Internet as often as needed for success. Furthermore, creating a blended learning environment appears to be an ambiguous task. The training and professional development is focused on the creation of a course in Blackboard, but the next step is not as clear. Blended learning also creates problems and forces some longstanding practices to change. Technical support is helpful most of the time; if it is unavailable, it is best to refrain from using the blended learning course so as not to confuse the students. Most problems can be solved by finding training on the Internet. Blackboard makes some aspects of teaching easier, reducing clutter by maintaining digital copies of all course materials for student access. In addition, PowerPoints, videos, syllabi, and links to other resources can be uploaded to the site. This helps students to become more responsible; however, many students will be able to use access as an excuse to not complete Blackboard assignments. Teachers need to be careful about losing ownership rights to the content uploaded to the Blackboard website. Blended learning is difficult to integrate into the course holistically. Creating a complete learning environment using blended learning instructional strategies would be beneficial, but it will take longer to reach that goal.

<div align="center">

Recommendations

</div>

The following section contains recommendations for the field of education based on the analysis of the data collected from this study. The section includes recommendations for educational policy, educational practice, and future research.

Policy

The findings in this study reveal several implications for educational policy. Blended learning implementation strategies affect policy at the school level, district level, and eventually the state policy. The concerns presented by teachers regarding implementation processes should be addressed at these levels in order to improve implementation. First, access concerns must be addressed in order to allow for maximum participation, although this must be approached with caution. There is significant room for error for districts that rely on census data pertaining to Internet access. Administrators at the school, district, and state level must create policies that acknowledge potential discrepancies in access data. These policies must support teachers as they attempt to implement blended learning at the classroom level. The teachers cannot control which individuals can access the Internet; however, they may be implored by their supervisors to increase student participation in blended learning. District policy should support their plight.

Content ownership was a concern for the participants in this study. As educational policy permits district ownership of educational content, it is possible that teachers will avoid the creation of content to support blended learning, or worse, avoid using blended learning platforms altogether. It would be more beneficial for districts to consider increasing awareness among teachers regarding copyright laws and content ownership. This could inspire teachers to safely create their own content, possibly using creative commons licensing, which benefits the district with regards to the quality of educational content used in the classroom. Rather than searching for content that was created for the

benefit of other schools, teachers collaboratively can create content that can specifically benefit their own students.

Training should target the creation of the blended learning environment, which should be addressed early with support from content specific examples. Furthermore, training should be collaborative and encourage teachers to plan their blended learning courses together. Relative to the aforementioned issues of content ownership, training should focus on the collaborative creation of content among teachers from the same content area. District facilitators could oversee implementation and provide technical support and focus on creating sustainability among blended learning teachers. This can be accomplished by introducing teachers to the widespread availability of training and resources on the Internet.

Practice

Teachers must deal with access concerns in the classroom. Students cannot complete assignments without Internet access, which creates a viable excuse for students to opt out. Therefore, teachers are placed in a tenuous situation. If they allow students to opt out, they undermine blended learning. If they allow students to opt out for an alternative assignment, they also undermine blended learning. Teachers must create blended learning environments that acknowledge the access concern, yet encourage students to complete blended learning assignments. Furthermore, they must contend with time constraints that are the result of the general demands of teaching, coupled with learning how to implement something new. In the case of blended learning, teachers must create a blended learning environment supported with meaningful educational content.

Solutions for problems in the classroom require administrative support in the form of sound implementation procedures. Administrators must create a culture that supports teacher learning and fosters collaboration. There is some merit to allowing blended learning to grow organically among teachers in the school building. Fostering collaboration among teachers in the same content areas may be more supportive and productive than implementing frequent school-wide benchmarks for attempting to monitor progress. Collaboration can help to combat time constraints as well. Teacher collaboration can increase the creativity and consistency among teachers who are constructing a blended learning environment. Teachers can collaboratively create rules and procedures that students can learn to identify with blended learning, thus assisting with implementation. Administrators need to support teachers with consistent school-wide policies and procedures stemming from the needs of the teachers tasked with implementation, rather than prescribing policies and procedures and requiring teachers to adapt.

Future Research

Replications of this study should consider the following while attempting to use a VFG to collect data from teachers. First, teachers enjoy talking with one another regarding teaching. The existence and popularity of Professional Learning Communities in K-12 education is testimony to this phenomenon. With that said, teachers are typically consumed with demands placed upon them by their job. Their willingness to participate in research correlates to the inconvenience factor presented by the study. It would be beneficial to allow a significant amount of time for responses. Likewise, email correspondence should target the peak hours for teacher use in order to be received and

considered, which is typically during the half hour before school starts and the half hour after school ends. Another useful consideration would be to identify each participant's planning period, a more beneficial means of ensuring a response.

Regarding the procedures for responding to questions, teachers are becoming more familiar with discussion boards as a result of college experiences and technology integration in the classroom. Therefore, generating responses is easy. However, generating detailed responses and interactions is a challenge, and more attention should be given to the conditions for creating interactions. Participants are commonly required to respond to at least one or two posts from others, although this researcher opined that it would be more beneficial to explore the possibility of this occurring naturally. The results were less than desirable. It would be more beneficial to create a requirement for responding to other participants. One suggestion would be to attempt a standardized session in which all participants engage during the same one-hour time frame.

Another consideration would be to approach the study with a more prolonged exposure technique, possibly allowing the participants to respond to discussion questions throughout the course of an entire school year. This may help to mitigate the risks of conducting the study during an inopportune portion of the school year, in which teachers are consumed by tasks such as final exams, standardized testing, finalizing grades, etc.

Finally, the use of aesthetics may influence responses. The website used in this study resembled a mobile device text messaging platform. Though this was chosen to create a comfortable and familiar environment for participants, it may have contributed to the length of the responses as well. It may be more beneficial to create an environment

that is more suggestive of discussion, or one that emphasizes narrative rather than brevity.

Follow-up studies should be conducted to focus on the experiences of students, administrators, and blended learning facilitators. Similar studies can be used to discover the differences among the various perspectives, or to triangulate the data and arrive at more descriptive understandings of the blended learning experience. As it was beneficial to explore the *transition* to the blended learning environment for teachers, it likewise would be beneficial to explore this transition as it is experienced by students and administrators. These types of studies will provide a better understanding of the implementation process, as well as the type of support needed to complete the transition in a way that is most beneficial to the needs of students, teachers, schools, and districts.

Though improvements can be made to the employment of the VFG, several perceived benefits to using this type of data collection can be applicable for future studies. Researchers can embrace the nature of participant responses — understanding that detail or depth may be limited, but present nonetheless — and explore models involving a dramatic increase in the number of participants. Furthermore, combining this approach with new technology to facilitate the analysis of qualitative data, more generalizable conclusions may be drawn. Through the use of a VFG, researchers may be able to explore topics, such as organizational change, on a much larger scale utilizing qualitative methods of inquiry and enjoying the benefits of quantitative sample sizes.

Conclusions

Teaching can be a difficult profession. The number of tasks for which teachers are responsible appears to grow exponentially. Understanding what it means to teach,

specifically what it means to teach in the urban school environment, is a critical piece of the puzzle when trying to implement technological change. As educational leaders develop plans for implementing new instructional strategies, particularly those fueled by technology, it is important to consider the relationship between the teacher and innovation, as well as the relationship between the field of education and the innovation. Disruptive Innovation Theory can explain these relationships, specifically for the innovation of blended learning. The extra effort attributed to defining these relationships, while integrating the elements of sound and appropriate theory, can foster teacher learning and development and increase the educational outcomes associated with innovations.

Educational innovations are primarily implemented at the classroom level, and the responsibility for this implementation falls to teachers. For any new program, approach to pedagogy, or instructional strategy, it could be said "that the devil is in the implementation." Teacher concerns provide insight regarding these innovations. The implementation of a new instructional strategy suggests that a large number of teachers are simultaneously sorting out new information, while continuing to perform the daily tasks of education. Their concerns should be considered early and often. Furthermore, their concerns should affect thoughtful modifications to implementation strategies by school and district administrators so as to maintain the support of teachers who are trying to perform many tasks at one time.

Regarding blended learning, teachers appear to be intimidated by the proposed changes to the instructional environment. Most habitually treat initiatives as a task to complete by a deadline. This is a natural outcome, as the number of tasks and

responsibilities extends beyond blended learning. However, teachers see merit in the structure of blended learning. The technology component can be difficult, but most teachers — particularly those more recently pursuing postsecondary education — have acquired an understanding of online learning through undergraduate and graduate school endeavors. Therefore, many possess the ability to determine the means by which to create courses in Blackboard. In addition, teachers are skilled at finding resources on the Internet. The success of blended learning will rest in the abilities of district leaders and administrators to coach teachers through the process, while fostering a collaborative atmosphere surrounding the innovation. This collaboration among teachers must be concerned with improving the innovation through experience and reflection, rather than reacting to the demands of deadlines and prescriptive blended learning configurations. District policies must support the core components of blended learning. If policies conflict with what teachers are attempting to create, it will not receive sustainable support from teachers and students.

Last, the use of a VFG was appropriate for this type of inquiry. Researchers should continue to consider the benefits of using technology for conducting research and build upon existing methods. However, improvements can be made to increase the interactions among participants. The VFG could allow for a larger number of participants to provide qualitative data. This type of research could be instrumental for improving or monitoring district change initiatives. Specifically, districts may want to combine this type of innovative qualitative inquiry with additional components of the CBAM, such as Levels of Use and Innovation Configurations, in order to create a more dynamic account of the change process and to improve the quality of implementation efforts.

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APPENDIX A: Informed Consent Document

INFORMED CONSENT DOCUMENT

Project Title: Perceptions of Inner-City High School Teachers Transitioning from a Traditional Instructional Practice to Blended Learning

Investigator: Michael Hamilton (michaelhamilton80@gmail.com) (615 445-5319)

You are being asked to participate in a project conducted through Western Kentucky University. Western Kentucky University requires that you give your signed consent to participate in this project.

The investigator will explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask any questions you have to help you understand the project. A basic explanation of the project is written below. Please read this explanation and discuss with the researcher any questions you may have.

If you then decide to participate in the project, please sign this form and return to the researcher. You should keep a copy of this form.

1. **Nature and Purpose of the Project:**
    This study will examine the perceptions of teachers' who have experienced the transition from traditional instructional setting to a blended learning setting. The collection of responses should provide a rich description of the change process as it pertains to the implementation of a blended learning instructional strategy.
2. **Explanation of Procedures:**
    If you choose to participate, you will be notified via email when the virtual focus is open and you may begin entering responses. You will be issued a three-digit sequence number via email to use in place of your name. You will complete each of the three interviews at your own pace during a seven day window. Each interview should take approximately 5-10 minutes.
3. **Discomfort and Risks:**
    There are no known risks to you in this study.
4. **Benefits:**
    You will benefit from a more teacher-centered approach to blended learning implementation strategies in the years to come.
5. **Confidentiality:**
    Your identity, as well as your school's identity will remain confidential throughout the study. The website will be deleted after the responses are transferred to a database for safe and secure analysis.
6. **Refusal/Withdrawal:**
    Refusal to participate in this study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.

You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

_____   _____
Signature of Participant   Date

_____   _____
Witness   Date

I agree to the audio/video/website recording of the data collection. *(Initial here)* _____

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT
THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
THE WESTERN KENTUCKY UNIVERSITY INSTITUTIONAL REVIEW BOARD
Paul Mooney, Human Protections Administrator
TELEPHONE: (270) 745-2129

WKU IRB# 14-460
Approval - 5/7/2014
End Date - 6/30/2014
Expedited
Original - 5/7/2014