2018

Educator Experiences Transitioning to a Blended Learning Environment in K-6 Public

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Walden University
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Abstract

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Doctoral Study Submitted in Partial Fulfillment

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February 2018

Abstract

Enrollments in blended learning programs are growing, creating a challenge to find educators who understand blended learning pedagogy. The purpose of this study was to identify and understand the challenges and pedagogical transformations of elementary educators who recently adopted blended learning. The concerns-based adoption model provided a conceptual framework to examine teacher concerns and level of implementation of innovative change. A multiple case study design was used to capture the experiences and perceptions of the participants' transition to a blended learning environment. Two teachers in one school in a California school district that transitioned to a blended learning approach were cases studied. The participants were a 4th and a 6th grade teacher who had taught the same grade level at their current school at least 1 year prior to its transition to a blended learning approach. The data collection process included interviews, classroom observations, and document reviews. The participants were interviewed on their understanding of blended learning and their changes in pedagogy. Classroom observations and documents were analyzed using pattern-matching to provide corroborating evidence. The teachers perceived an increase in student-teacher interactions and indicated a need for more guidance developing their blended learning program and support curating resources during the transition to blended learning. A self-paced online professional development program was designed to provide the training needed to support the teachers in their transition. The project study could lead to positive social change by identifying teacher support needed to transition from a traditional teaching environment to a blended learning environment.

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Acknowledgements

This accomplishment would not have occurred without the support of my family and friends. I would like to express my deepest thanks to my husband, Robert, and children, Daniel, Taylor, and Andrew for all their words of encouragement and support during this educational journey. Special thanks to my close friends for their constant support and words of encouragement. Finally, I want to express my appreciation to my chairperson, Dr. Tiffany DePriter. Her dedication and guidance throughout the process has been amazing. Thank you, everyone, for supporting me through this remarkable learning journey.

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Section 1: The Problem

Introduction

Schools are transitioning to blended learning, the combining of traditional face-to-face teaching and learning with online technologies, in an effort to personalize student learning and prepare students for future success (Blackboard, 2015; Apex Learning, 2016). In the United States, opportunities for students to learn through blended and online-only options have increased in K-12 public school systems with researchers finding the highest increase in blended learning (Watson, Murin, Vashaw, Gemin, & Rapp, 2013). For example, the 2014 California eLearning Census (Bridges, 2014) indicated a 43% increase of K-12 students enrolled in blended learning in traditional districts from 2012 to 2014.

Blended learning has the potential to transform pedagogy (Garrison & Kanuka, 2004), personalize instruction (Soifer, 2015), and it requires knowledge of specific competencies (Norton & Hathaway, 2013). The teacher's attitude, skills, knowledge, and use of technology impact blended learning success (Chan, Wilkinson, Graham, Borup, & Skeen, 2011). According to Bhati, Mercer, Rankin, and Thomas (2009), effectively infusing technology and content knowledge into a blended pedagogical approach takes planning and professional development. Teachers need support to personalize instruction through blended learning (Soifer, 2015). Given the current growth of blended learning, identifying pedagogical transformations and instructional strategies will provide a framework for educators teaching in blended learning environments.

The purpose of this study was to identify and understand the challenges and pedagogical transformations of elementary educators who recently adopted blended learning. In this section, I offer a detailed description of the problem and a rationale for why I chose to address the problem. In the review of the literature, I examine current research trends and offer definitions of online and blended learning in K-12 education. Finally, I present the guiding research questions to address the problem and implications of this study.

Definition of the Problem

A school district in California transitioned several of its elementary schools from a traditional model of teaching to blended learning models. The change in instructional strategies was in response to a need to prepare students as 21st century learners and to personalize student instruction (Wong, 2014). New technology was purchased, learning labs were remodeled, and the district network infrastructure was upgraded (Wong, 2014). Each school site determined the type of training needed to support their teachers. Technology training was available to teachers at the district level. According to Archambault (2011), teachers should have training on blended learning pedagogy. In this study, I captured the perceived changes in instructional strategies of a fourth and a sixth-grade teacher in an elementary school that transitioned to a blended learning approach to teaching and learning in the fall of 2013.

Rationale

With growing enrollments in online and blended courses, administrators are challenged to find educators adequately prepared to meet the demands of online and

blended instruction. The U.S. Department of Education's National Technology Plan (U.S. Department of Education, 2010) recognized online teacher certification as a requisite to ensure high quality student learning experiences online. Dawley, Rice, and Hinck (2010) concluded that 25% of teachers new to teaching online lack training for online teaching. Similarly, the 2013 California eLearning survey reported that 22% of online and blended teachers have not received training for teaching online (Bridges, 2013). In the follow-up report (Bridges, 2014), districts reported that if they could start the transition process over, they would better prepare their staff for the transition from traditional teaching to blended learning. As districts and schools increase blended learning programs, teacher qualifications impact the quality of online and blended instruction (Yang & Cornelious, 2005). Teachers need training to be prepared to succeed in a blended learning environment (Archambault & Kennedy, 2014). Administrators are assigning educators to teach in blended learning environments with limited knowledge of pedagogical strategies for a blended learning approach to education. In this study, I defined what blended learning means to the teachers, identified differences between traditional and blended learning pedagogical strategies, and also identified the types of support teachers needed to make the transition.

Evidence of the Problem at the Local Level

Several public elementary schools in California have implemented blended learning initiatives. This project study focused on two teachers from one elementary school in California that transitioned school-wide from a traditional teaching approach to a blended learning approach. In the spring of 2012, teachers and principals of schools

within the district were asked by the superintendent to submit school redesign proposals. Required elements for the school redesign included introducing flexibly in the use space, time, and student grouping, being student-centered, integrating technology, and using data to inform instruction (Quattrocchi, 2014). The schools in the district submitted proposals for implementing varying configurations of a blended learning approach that would provide personalized learning for students in a more flexible, 21st century environment (Wong, 2014). Teachers and principals worked to redesign the teaching process for the opening of the 2012-13 school year. A district bond was passed in June 2012 that provided funds for remodeling school spaces, technology devices, and technology infrastructure (Quattrocchi, 2014). The school district provided training, as needed, on technologies and applications, and school site administrators and teachers identified additional training needs. In order to be adequately prepared to take a blended approach to teaching, a well-qualified teacher should have training in blending content, pedagogy, and technology (Archambault, 2011).

Evidence of the Problem from the Professional Literature

K-12 student enrollment in online courses has grown exponentially over the past decade. Setzer and Lewis (2005) reported 327,670 students enrolled in distance education courses for the 2002-2003 school year. In 2009 the student enrollment in distance education courses was 1,816,400 (Queen, Lewis, & Coopersmith, 2012). Ambient Insight (2012) predicted that 10,710,00 students would be enrolled in online courses by 2016.

In 2011, California assembled a State Superintendent of Public Instruction Education Technology Task Force to make recommendations regarding the use of digital

technologies in schools. The state superintendent's Education Technology Task Force (2012) recommended expanded use of online instructional materials and support of any time, any place, any pace learning. The task force also recommended the inclusion of online teaching and learning for teacher and administrator certification.

The K-12 educational environment has seen an increase in the blending of online and face-to-face instruction. Picciano and Seaman (2009) estimated that district offerings of blended courses would grow by 22.9% by 2011. Administrators surveyed by Project Tomorrow (2011) indicated the greatest growth of online learning was through blended class offerings. In 2014, school administrators reported that blended learning holds the greatest promise for increasing personalized learning (Project Tomorrow, 2014). Since 2012, the California eLearning Census reports have indicated a growth in blended learning programs (Bridges, 2013, 2014; Rouse & Bridges, 2012). The 2014 report indicated that blended or virtual learning programs were available in 53% of responding public school districts and direct-funded charters, and 21% reported implementation discussions or plans for either online or blended programs. Christensen, Horn, and Staker (2013) predicted that blended learning schools will become the future model of schooling in the United States. The research has indicated that blended learning environments in K-12 educational settings will continue to increase.

It is important for administrators and teachers to understand the pedagogical transformation and technological skills required to facilitate blended instructional strategies effectively, given the current predictions on the growth of blended learning in public schools. A well-qualified teacher should have training in blending content,

pedagogy, and technology to be adequately prepared to facilitate online or blended courses (Archambault, 2011). Educators with online learning experiences better understand the needs of online students (International Association for K-12 Online Learning, 2011). Adequate training and online experience is critical for teachers implementing online and blended learning.

Definitions

Blended learning: Christensen et al. (2013) defined *blended learning* as having the following four critical elements: (a) some learning takes place online, (b) students have some control over their learning; (c) some of the learning takes place in a physical supervised environment away from home; (d) students are provided an integrated learning experience.

Blended school: An entire brick-and-mortar school that delivers curriculum through some combination of online and face-to-face instruction, provides students with some control over their learning, and provides students an integrated learning experience (Watson et al., 2013).

Personalized learning: Tailoring instruction to the interests, needs, and learning preferences of individual students (U.S. Department of Education, 2010).

Significance

Students and parents are seeking educational alternatives to personalize student learning. Students are using emerging technologies to personalize their learning outside of school (Project Tomorrow, 2012), and they want to leverage technology to collaborate online with their peers on school projects (Project Tomorrow, 2011). Students in blended

environments reported a strong connection between technology use and personalized instruction (Project Tomorrow, 2014). Blended learning is an educational strategy that enables personalization and online collaboration in a student-centric environment.

Teacher quality is a factor that influences student achievement (Rice, 2003). Quality teaching requires an understanding of the integration of technology, pedagogy, and content (Mishra & Koehler, 2006). Most online teachers do not have prior experience teaching online (Kennedy & Archambault, 2011). Furthermore, few teacher education programs offer online teaching field experience (Kennedy & Archambault, 2011). Further, there is little research on K-12 online and blended pedagogy (DiPietro, 2010). Specifically, research is lacking on the pedagogical differences between traditional teaching and blended teaching in K-12 schools. Research is also limited on the support teachers need to successfully transition from the traditional teaching environment to a blended learning environment. In this study, I sought to create positive social change by defining what blended learning means to teachers, identifying differences between traditional and blended learning pedagogies, and identifying what types of support teachers need to make the transition from a traditional to a blended environment, based on their perceptions and experiences.

Guiding/Research Question

This study served to capture the perceptions of two upper elementary teachers who transitioned from a traditional teaching environment to a blended learning environment. I interviewed the teachers to define blended learning, identify changes in their pedagogical strategies, and detect support needs. I also interviewed the school site

administrator to provide a broader range of historical evidence and a varied perspective. Documentation was collected and classroom observations were conducted to provide corroborating evidence of the phenomenon. I drew conclusions based on the information gathered from the interviews, observations, and documentation.

Research has indicated that the transition from the traditional classroom to the online or blended classroom requires pedagogical changes. However, the specific pedagogical changes for blended learning in K-12 education are lacking in current research. Technology is vital to the online and blended classroom, demanding an increased skill set for teachers to use the technology effectively and support students' use of technology. There is emerging research on online and blended learning for institutions of higher education. However, research on blended learning for K-12 education on pedagogical changes and support teachers need is limited. There are national and local survey reports to indicate interest and growth in K-12 online and blended learning. The California eLearning Census is a local survey that has indicated the interest and growth of blended learning in California public schools since 2012 (Bridges, 2013, 2014; Rouse & Bridges, 2012). Research on blended learning in K-12 education is needed to identify pedagogical changes and the coordination of pedagogy and technology. According to Bridges (2014), in California there are more schools offering or planning to offer blended learning in high school than in elementary school. However, there was a 12% increase from 2012 to 2014 in the number of elementary school districts offering blended learning (Bridges, 2014). For this study, I focused on teachers from the upper elementary grades who teach in a public elementary school. Upper elementary teachers were selected for

this project study due to the increased requirements for using digital resources in fourth, fifth, and sixth-grade stated in the Common Core State Standards (National Governors Association Center & Officers School, 2010) and use of digital devices and resources to personalize learning in blended learning environments.

Research Questions

The project study was guided by the following research question: What are upper elementary grade teachers' experiences with blended learning?

I developed the following subquestions to further define the study:

- How are upper elementary grade teachers defining blended learning at their school site?
- What are upper elementary grade teachers' perceptions of their transition from traditional teaching to a blended learning approach to teaching and learning?
- How has teaching and learning changed since their school adopted blended learning?

Review of the Literature

In the literature review, I examined the growth of online and blended learning, and the types of programs in K-12 educational institutions in the United States. In what follows, I offer definitions and discuss models of blended learning identified by institutions of higher education and the K-12 educational system. I also discuss literature regarding this study's conceptual framework, the concerns-based adoption model.

The databases and search engines I used to search for literature included Google Scholar, Education Research Complete, EdITLib, ScienceDirect, SAGE Premier,

ProQuest, and ERIC. I sought to gather literature on the implementation of blended learning in K-12 education. I completed searches of the electronic databases using the following keywords: *blended learning, blended instruction, blended environment, online learning,* and *personalized learning.*

Conceptual Framework

Research to propose new theories or develop existing theories on blended learning is lacking (Halverson, Graham, Spring, Drysdale, & Henrie, 2014). A conceptual framework provides a structure to support and inform research (Merriam, 2009). Developing conceptual frameworks for blended learning will help to inform educational practitioners' decision-making regarding blended learning. Blended learning research, grounded in theory, is needed to guide practice (Graham, 2013).

Transitioning from a traditional teaching environment to an innovative new blended learning environment requires teachers to change their perceptions and behaviors of established instructional practices. Change is a process that develops over time as the individual becomes more confident in their understanding of the transition and more competent in the new skills required of the innovation (Gershner & Snider, 1999). The innovation needs to fit with the beliefs, attitudes, and needs of teachers for change to occur (Terhart, 2013). It will take time for teachers to identify and modify needed changes in instructional practices to create a blended learning environment.

Concerns-based adoption model. The concerns-based adoption model (CBAM; G. E. Hall, Wallace, & Dossett, 1973) that I used as the conceptual framework for this study serves as a multi-stage decision process for adopting innovations in educational

institutions. At the introduction of an externally sponsored new innovation, impacted individuals progress developmentally through behavioral changes, both in mindsets and new skillsets (Anderson, 1997; Saunders, 2012). Blended learning in the K-12 educational system is a new learning environment that mandates behavioral changes. Teachers must develop a new mindset to change pedagogical practices and learn new skillsets necessary to implement the use of digital content and digital devices.

The concerns-based adoption model has identified three dimensions for measuring an individual's change: stages of concern, levels of use, and innovation configurations (Anderson, 1997; Saunders, 2012). The stages of concern dimension identify the attitudes and motivations about the change. An individual's current feelings and concerns about using an innovation are the focus of the stages of concern dimension (Matar, 2015). Hall (1975) identified and defined seven stages of concern about an innovation that an individual may progress through developmentally:

0. Awareness: Innovation is of little interest or concern.

I. Informational: General awareness and gained interest in the innovation.

II. Personal: Anxieties and concern about skillset to implement change.

III. Management: Experiments with, but concerned about logistics of implementation.

IV. Consequence: Concerned about impact on students.

V. Collaboration: Interested in working with others to improve student benefits.

VI. Refocusing: Considering modifications to maximize benefits.

The stages of concern dimension is useful for identifying the developmental stages a teacher experiences when implementing change from external forces. The developmental progression moves from self, to task, to impact (Hall et al., 1973; Overbaugh & Lu, 2009). In the beginning the teachers are concerned with their personal abilities, then the logistics and their skillset, and next the effect on the students. An awareness of which stage a teacher is progressing through is important for providing the needed support.

The levels of use dimension focuses on teacher behaviors as they implement change. The extent to which the change is implemented is identified by specific behaviors (Saunders, 2012). Hall (1975) identified and defined levels of use of an innovation:

0. Nonuse: No use for the innovation.

I. Orientation: Recently acquired information about the innovation.

II. Preparation: Preparing for use, but has not implemented.

III. Mechanical: Begins implementation in a stepped approach, little to no reflection.

IVA. Routine: Establishes patterned use of innovation.

IVB. Refinement: Assesses impact on students and initiates changes.

V. Integration: Collaborates with others to increase student impact.

VI. Renewal: Re-evaluates use and considers major modifications.

Teacher behaviors related to the implementation of a change in practice is identified using the level of use dimension. According to Hall et al. (1973) teacher behaviors follow a congruent developmental progression identified through the stages of

concern and the level of use dimensions. Behaviors demonstrating developmental use of a change will follow coinciding concerns about the implementation of the change. Kim and Paik (2016) reported that an increase in a teacher's level of use of an innovation will also increase the teacher's stage of concern.

Teacher's specific behavioral components of change are examined through the innovation configurations dimension (Anderson, 1997). Teachers will often implement an innovation differently. An innovation configuration map serves as a representation of the different elements included in the adoption of innovation (Donovan, Green, & Mason, 2014). An innovation configuration map can be used by administrators as a checklist to evaluate implementation and identify possible essential components in the implementation.

The concerns-based adoption model provides a framework to understand and analyze teacher implementation of change. Implementing a transition from traditional teaching to a blended learning environment necessitates changes in pedagogical strategies. I used the concerns-based adoption model levels of use dimension to identify the behaviors and skills of participants as they began to use and gain confidence implementing pedagogical changes.

Blended learning in California public K-12 schools is rapidly moving from isolated teachers blending their classrooms, to whole-school transition to blended learning. Teachers choosing to transition their classroom from a traditional environment to a blended learning environment is intrinsically motivated to try an innovation. When an entire school takes on an innovation, external forces demand the transition and

teachers may lack the motivation because of their concerns about the innovation. Understanding the concerns of teachers and identifying their levels of implementation assists in identifying the types of support that are needed for a successful implementation of the innovation, a blended learning environment.

Growth of K-12 Online and Blended Learning

Since 2001, U.S. K-12 student enrollment in online and blended courses has been on a steep incline. The estimated number of students enrolled in at least one online or blended course increased nationally from 50,000 students in 2001 (Clark, 2001) to 1,816,400 students in 2009 (Queen et al., 2012). California had a 74% increase in the reported enrollment of students in blended programs from 2012 to 2014 (Bridges, 2014).

Distance education has been an independent study option for K-12 students through such methods as correspondence, television, and video conference since the late 1920s (Clark, 2003). In the late 1990s, advances in educational technologies stirred an increase of virtual schools that provided online learning through the Web-based methods as a viable option for K-12 students (Clark, 2003). The Internet enabled virtual schools to offer myriad K-12 courses (Clark, 2001).

Through an online survey of K-12 virtual schools, Clark (2001) estimated the 2001-2002 school year enrollment in virtual courses to be up to 50,000 students. Setzer and Lewis (2005) conducted the first national study of public elementary and secondary school districts to examine technology-based distance education for the U.S. Department of Education. Distance education enrollment for 2002-2003 was estimated at 328,000. A follow-up survey showed the 2004-2005 estimated enrollments of K-12 distance

education students at 506,950 (Zandberg, 2008). The 2005 survey reported an increase in use of asynchronous instruction through the Internet as the primary mode of instructional delivery from 35% in 2002-2003 (Setzer & Lewis, 2005) to 58% in 2004-2005 (Zandberg, Lewis, & Greene, 2008). The increase in asynchronous instruction indicated increased availability and access to the Internet in public schools.

Picciano and Seaman (2007) surveyed K-12 schools to determine the nature and extent of online and blended learning. The extrapolated data from the research indicated that 700,000 students were enrolled in online and blended courses during the 2005-2006 school year. A follow-up survey for the 2007-2008 school year showed a 47% increase of students engaged in online courses (Picciano & Seaman, 2009).

The U.S. Department of Education collected data from public elementary and secondary school districts for the 2009-2010 school year to provide estimates for national student enrollment in distance education courses. The report showed an estimated 1,816,400 distance education enrollments (Queen et al., 2012). Seventy-four percent of the enrollments were in high school, middle schools reported 9%, and elementary schools 4%. Asynchronous instruction using the Internet continued to increase as the primary mode of instructional delivery. From 2000 to 2010 there was a steep increase in the K-12 student enrollment in online and blended courses. The 2014 California eLearning Census survey indicated a continued increasing enrollment trend in online and blended courses.

Types of K-12 Online and Blended Programs

There are several program configurations for public school offerings of online and blended learning. Program offerings can be statewide, single district, or multi-district. Watson et al. (2012) identified six categories of online and blended learning:

State virtual schools: State virtual schools are created at the state level, generally by legislation or an agency. A state agency usually funds and administers the operations of the virtual school. State virtual school programs can be supplemental or full-time online programs. Watson et al. (2012) reported 28 states operating virtual school programs. Florida runs the largest state virtual school program.

Single district online programs: The fastest growing offerings of online or blended courses are through single district programs. Districts are creating opportunities for students within their district to take online or blended courses. The courses are usually offered as supplemental courses accessed from the physical school setting.

Multi-district fully online schools: Multi-district fully online schools function across multiple school districts. They are often organized as charter schools that operate under an educational management organization. Generally, multi-district online schools can draw their enrollment from the entire state, and students do not need to physically attend a school campus. Watson et al. (2012) reported multi-district fully online schools in 28 states.

Consortium online programs: Districts seeking to combine resources often develop consortium online programs. The consortium serves the students from the participating districts.

Postsecondary programs: Districts partner with postsecondary institutions to provide supplemental online courses. The courses are offered through independent or alternative study programs. Sometimes students can receive dual-credit for the courses in an extended effort to meet the needs of college-bound students. Many of the postsecondary programs are offered through private schools.

Full-time blended schools: Many of the full-time blended schools are charter schools operated by an educational management organization. The school takes a whole school approach to blended learning instruction. Reporting data on blended schools is problematic due to blended learning school is not a recognized accountable category in most states.

Definitions of Blended Learning

Within the past few years blended learning is a term used with increasing frequency in elementary and secondary education. But what does blended learning mean? The term has been used ambiguously without a clear definition. Common to all definitions of blended learning is the inclusion of a combination of face-to-face instruction and computer-mediated instruction.

In an effort to understand the online landscape of higher educational institutions in the U.S., Allen and Seaman (2003) developed standard definitions for online, blended, and web facilitated courses for survey reporting consistency. The course offerings for higher education were defined by the percentage of course delivery online. A course providing 30-79% of content online with some face-to-face interaction was defined as a blended or hybrid course.

Graham, Allen, and Ure (as cited in Graham, 2005) identified the combining of instruction through either modalities, methods, or online and face-to-face as three common definitions of blended learning. Graham (2005) stated combining instruction through modalities or methods provided too broad a definition of blended learning. The combining of face-to-face and online instruction more accurately reflected the merging of traditional and distributed teaching and learning that include computer-based technologies. The percentage of content interaction with computer-based technologies was not a determining factor in defining blended learning (Graham, 2005).

In an effort to describe the blended learning phenomenon for the K-12 educational system, Staker (2011) detailed two essential clauses to identify blended learning from the perspective of a student. First, some student learning occurs supervised away from home in a brick-and-mortar location. Second, some student learning occurs online, and the student must have some element of control over time, place, path, or pace. The definition was revised in 2013 to include an integration between the student's online and offline learning path (Christensen et al., 2013). The offline student-learning path may include traditional whole class face-to-face instruction, small group instruction, and individual instruction. In 2013 the California County Superintendents Educational Services Association adopted the combination of online learning and face-to-face instruction with the three essential clauses of student learning occurs supervised away from home, student has some element of control, and the learning paths are integrated to define blended learning for the California educational system (California County Superintendents Educational Services Association, 2013).

Models of Blended Learning Environments

The blended learning environment may look different in each classroom. The implementation of blended learning may be adopted at various levels within the educational system, such as the activity level, course level, program level, or institutional level (Graham, 2009; Osguthorpe & Graham, 2003). At the activity and course level an instructor is the major stakeholder integrating face-to-face and computer mediated activities into an activity or throughout the entire course. Blended learning at the program level in higher education involves students having the ability to take both face-to-face and online courses to complete a degree program. The adoption of blended learning at the institutional level demands a commitment to implementing blended learning throughout the organization. The driving force behind program or institutional adoption of blended learning is typically administrators concerned with cost effectiveness and expansion of student access (Graham, 2009; Osguthorpe & Graham, 2003).

Blended learning has been identified by three major categories of blends (Graham, 2009; Osguthorpe & Graham, 2003). One category was enabling blends that focus on using communication technology for access and convenience. Another category was enhancing blends in which online resources and online activities are integrated into the course. An enhancing blend may impact student learning and introduce changes to pedagogy transforming instruction (Graham, 2009). The third category, transforming blends, facilitate a constructive approach implementing significant pedagogical changes. The use of a data system to make informed instructional decisions regarding student's

online and face-to-face learning paths is a blended approach that can transform instruction (Watson, Murin, Vashaw, Gemin, & Rapp, 2010).

In 2011, the Christensen Institute for Disruptive Innovation profiled 40 organizations that offered a blended learning environment within brick-and-mortar classrooms and identified six models of blended learning:

- Face-to-Face Driver: Online learning is offered to supplement or remediate student learning and is determined by the face-to-face teacher. The online learning is offered within the classroom or in a technology lab at the school site.
- Rotation: Students rotate their learning between online learning and the face-to-face teacher on a fixed schedule.
- Flex: The primary delivery of student instruction is offered online. A face-to-face teacher is available for one-on-one tutoring and small group sessions.
- Online Lab: The entire content and instruction for a course are offered online in a brick-and-mortar lab environment.
- Self-Blend: Students attend most courses within the brick-and-mortar school and supplement their learning through enrollment of online courses.
- Online Driver: The teacher delivers all content and instruction within an online platform and students work remotely (Staker, 2011).

In the 2012 follow-up report the Christensen Institute for Disruptive Innovation revised the classification of the six models of blended learning to four models of blended learning (Staker & Horn, 2012). The Face-to-Face Driver model was eliminated because

the similarities with the Rotation and Flex models were deemed to be not substantially different. The Online Lab model was also eliminated due to the overlap with the Self-Blend model. The Self-Blend model was redefined to include any time or place students take an online course to supplement their learning. The Online Driver model was renamed the Enriched-Virtual model to encompass the meaning of full-time virtual learning. The Rotation model was identified by four subcategories:

- Station-Rotation: Students rotate between learning modalities within the classroom on a fixed schedule and at least one of the stations is for online learning.
- Lab-Rotation: Students rotate between a learning lab for online learning and the classroom on a fixed schedule.
- Flipped-Classroom: Students rotate on a fixed schedule between face-to-face guided practice in a classroom and online content and instruction from a remote location beyond the school day.
- Individual-Rotation: Students rotation is individually customized between learning modalities within the classroom on a fixed schedule and at least one of the stations is for online learning (Staker & Horn, 2012).

Defining models of blended learning provides K-12 educators' common characteristics to distinguish blended learning classrooms from traditional brick-and-mortar classrooms. As the blended learning phenomenon continues to grow in K-12 education, models of blended learning will continue to evolve.

Benefits of Blended Learning

The accepted definition of blended learning in California combines online learning with face-to-face instruction where the online learning path includes some element of student control over time, place, path, and/or pace, supervision away from home in a brick-and-mortar location, and integrated learning experiences between off and online learning paths (California County Superintendents Educational Services Association, 2013). A key element in the definition of blended learning is the student must have some element of control over time, place, path, and/or pace. According to the 2011 and 2012 Speak Up (Project Tomorrow, 2012, 2013) national survey findings, students reported benefits of online learning include having control over their learning and being able to work at their own pace. In 2014 (Project Tomorrow, 2014) students included the link between technology use and personalization of learning as a major benefit of blended learning.

An educator can individualize, differentiate, and personalize learning by implementing blended instructional strategies. Individualized instruction refers to pacing instruction to meet the needs of learners, whereas, differentiated instruction matches the instructional method or approach to meet needs of learners (U.S. Department of Education, 2010). Personalized instruction tailors instruction to the interests of learners and encompasses individualization and differentiation (U.S. Department of Education, 2010). Personalized learning has been indicated as a benefit of a blended learning approach (Marsh, 2012; Soifer, 2015). Advances in technology are providing more efficient methods for teachers to personalize student learning (Murphy, Redding, &

Twyman, 2013). In a blended environment, the effective use of technology is a tool that enables personalized learning.

A meta-analysis of research on online and blended learning revealed higher mean effect size comparing blended learning studies to face-to-face instruction or online only instruction (Means, Toyama, Murphy, Bakia, & Jones, 2009). The study suggested the advantage for blended learning may stem from changes in pedagogical strategies, course content and learning time. The meta-analysis initially searched literature published between 1996 and 2006, but expanded the time frame through 2008 in order to include studies that included K-12 students (Means et al., 2009). Fifty-one studies were included in the meta-analysis, which included seven contrasts from five controlled design studies of K-12 blended learning.

Long and Jennings conducted two randomized control trials (Means et al., 2009). The first study compared eighth-grade performance using online interactive activities. A small effect size favored students using the online activities. In a second study by Long and Jennings (Means et al., 2009), teachers covered the same curriculum twice with two different groups of students and a regression analysis indicated a higher effect favoring students that were using online materials. The other four K-12 studies analyzed were quasi-experimental. Rockman et al. (2007) contrasted the effects of blended learning to face-to-face instruction for middle school students in a Spanish course. The study reported no statistically significant difference for oral and written comprehension of Spanish, but a significant difference in writing ability for students in the face-to-face course. O'Dwyer, Carey, and Kleiman (2007) compared algebra taught through a blended

model in a face-to-face environment and in an online environment. The study reported a higher effect size for students in the online environment. Sun, Lin, and Yu (2008) examined the effectiveness of an online science lab with fifth grade students. Students in the virtual online science lab performed significantly better than students taught using conventional lab equipment. Englert, Zhao, Dunsmore, Collings, and Wolbers (2007) studied web-based writing for elementary students. The study effect size favored the online writing to the paper-and-pencil writing. Means et al. (2009) recommended more rigorous research on the effectiveness of online learning was needed.

Blended learning maximizes the best of face-to-face instruction and online instruction. Students benefit from face-to-face interactions between other students and the teacher, as well as through online access to learning (Osguthorpe & Graham, 2003). A well-balanced blended learning approach enables the benefits of learning through face-to-face interactions and online access (Osguthorpe & Graham, 2003). A blended learning approach can transform the learner's experience, allowing teachers to better meet student learning needs (California County Superintendents Educational Services Association, 2013). Blended learning impacts students, teachers, administrators and infrastructure making it "the most transformative and pervasive initiative an institution can undertake (Niemiec & Otte, 2010)." Garrison and Kanuka (2004) stated that blended learning has the transformative potential to dramatically change teaching and learning.

Current Research Trends

There is very little research on blended learning in the K-12 environment. Halverson, Graham, Spring, and Drysdale (2012) reviewed publications from 2000 to

2011 on blended learning to determine impact by analyzing frequency of academic citations. Of the top 50 publications reviewed only two articles focused on K-12 blended learning research, while 66.1% focused solely on higher education. Halverson et al., (2012) reported only 8% of the theses and dissertations written through 2011 studied blended learning in the K-12 environment and 77% studied blended learning in a higher education setting. To help guide the implementation of blended learning that is rapidly taking place in the K-12 environment, research specific to the needs of K-12 education is needed.

Research on blended learning has been limited (Graham, 2013; Halverson et al., 2012). The focus of blended learning research has been focused on instructional design, dispositions, exploration, and learner outcomes (Halverson et al., 2014). Instructional design research has focused on describing models of blended learning, instructional strategies and best practices, but little attention has been afforded to the design process and implementation. According to Halverson et al. (2014) and Drysdale et al. (2013), dispositional data on perceptions of students has received significant attention in blended research over the perceptions of faculty and administrators. Research exploring the nature of blended learning, its benefits and challenges, or current and future trends has also received considerable attention (Halverson et al., 2014). Only 3.5% of the publications analyzed by Halverson et al. (2014) addressed professional development for blended learning. Drysdale et al. (2013) discovered the topic of professional development for blended learning lacking in dissertations and theses. Since blended learning requires a

change in pedagogy and the use of new innovative technologies, the lack of attention in the research suggests a need for future research.

Adapting to Change

Change is a process. Change is a personal process that mandates a teacher alter their beliefs and skills (Fullan, 1985). According to Posner, Strike, Hewson and Gertzog (1982), teachers must become dissatisfied with their beliefs before they can change their beliefs. A teacher's self-efficacy impacts their commitment to change (Smith & Gillespie, 2007). Concerns about change influence feelings and perceptions teachers have about their ability to make the change (Hord, Rutherford, Huling-Austin, & Hall, 1987). The perceived magnitude of change can influence a teacher's ability or willingness to implement change (Guskey & Peterson, 1995). There are many factors that influence teachers' acceptance or resistance to change.

The implementation of a new innovation triggers the need for change. In education an innovation can be defined as any new program or strategy that requires a shift in perspective (Pennington, 1995). It is critical to monitor and address the concerns of teachers during the implementation of an innovation (Hall, George, & Rutherford, 1977). The successful adoption of a new innovation depends on the degree to which teachers are comfortable with the innovation (Garrison & Vaughan, 2012). If a teacher can adapt the innovation to fit within their beliefs and needs transformation can occur (Terhart, 2013). Teachers need support and training to help them transition from familiar beliefs and behaviors to learn new ones (Fullan, 1992).

Professional development can help teachers understand and accept changes (Guskey, 2002) needed to implement an innovation. Teachers need to understand the purpose of the professional development and provide input in order for the training to change their beliefs and practices (Vaughan, 2002). Support needs to be ongoing continue for the teachers in order to implement an innovation with success (Guskey, 1985).

To create an institutional change a shared vision and school-wide strategy needs to be developed and implemented (Bhati et al., 2009). A school-wide strategy engages the entire school in a collective effort of transition from an old belief and way of doing things to new beliefs and skills (Fullan, 1992). Institutional change can be a slow process. An awareness of teachers' concerns about change is needed to develop a strategy to help teachers alter their beliefs and skills to embrace the benefits of implementing a new innovation.

Implications

The outcome of the project study defined what blended learning means to teachers, identified what pedagogical strategies differed from traditional teaching environment to a blended learning environment, and identified the types of support teachers needed to make the transition based on teacher perceptions and experiences. The review of the literature focused on the varied descriptions of blended learning and the potential blended learning has as an innovation to create transformative change in teaching and learning (Garrison & Kanuka, 2004; Niemiec & Otte, 2010). However, the literature on blended learning is limited on its impact for the K-12 population (Halverson

et al., 2012). The commitment to change was noted in the literature as an important process for accepting innovations (Garrison & Vaughan, 2012; Terhart, 2013).

Several implications were anticipated from the results of this study. From the review of literature, a professional development program was needed to assist teachers in their transition from a traditional teaching environment to a blended learning environment. Training on blended learning was needed to prepare teachers to facilitate blended learning (Kennedy & Archambault, 2011). Professional development helps teachers accept change (Guskey, 2002). The findings of this study and the project have the potential of benefiting teachers in other districts transitioning to a blended learning environment and contributing to the existing literature on blended learning in K-12 schools. Additionally, this study has the potential to promote positive social change by defining what blended learning means to teachers, identifying what pedagogical strategies differ from traditional environment to a blended learning environment, and what types of support are needed to make the transition based on teacher perceptions and experiences.

Summary

The implementation of blended learning is increasing in California public elementary schools. Allen & Seaman (2003), Osguthorpe and Graham (2003), and (Graham (2009) defined blended learning for institutes of higher education. Staker and Horn (2012) identified models of blended learning for K-12 education. However, Graham (2013) and Halverson et al. (2014) noted research literature on blended learning was lacking theory to support and guide practice. Current research has afforded limited

attention to the implementation of blended learning and the need for professional development (Drysdale et al., 2013; Halverson et al., 2014). The research study assisted in filling the gap in the literature by describing teachers' experiences implementing a blended learning environment. The study also defined teachers' need for professional development by defining what blended learning means to teachers, identifying what pedagogical strategies differ in a blended learning environment, and identifying the types of support needed to make the transition based on teacher perceptions and experiences.

The research used a qualitative, multiple-case study approach to examine the perceptions of teachers who have transitioned from a traditional learning environment to a blended learning environment. The next section, section 2, includes the methodology and research design of this case study. Detailed descriptions of the qualitative data collected and analysis procedures are presented. A description of the research setting and details of the sample population are provided. A summary of ethical considerations implemented to ensure the protection of the participants' rights is discussed. Finally, I have provided a description of the methods that were used to ensure credibility.

Section 2: Methodology

Introduction

The purpose of this research was to use the dimensions of the concerns-based adoption model to describe the process of change for upper elementary grade teachers in a California public school transitioning to a blended learning environment. The school site implemented a whole-school transition from traditional teaching to a blended learning approach. Blended instruction requires teachers to incorporate the best practices of traditional instruction and online teaching. My literature review revealed blended learning's potential to transform learning and the need for teacher training. Capturing teacher perceptions of their experiences transitioning to teaching in a blended learning environment assisted me in describing what blended learning means to the teachers, and in identifying what pedagogical strategies differed between the two modes, what technical skills were required, and what types of support were needed to make the transition.

Description the Research Methodology

I used a qualitative, multiple case study design to describe upper elementary grade teachers' transition to a blended learning approach to instruction within one school. Qualitative researchers seek to understand how individuals make sense of their lives and the world around them (Hatch, 2002). Case study researchers investigate a current phenomenon bounded by time or space (Hancock & Algozzine, 2006), and interactions are independent of the researcher's presence (Yin, 2014).

Central to qualitative research is capturing understandings of events from the perspectives of those living through them (Hatch, 2002). Some common approaches to qualitative research include grounded theory, ethnography, phenomenology, and case study. Each approach has unique characteristics. The outcome of a grounded theory approach is to build a theory inductively from the continual review of data collected (Merriam, 2002). An ethnographic approach is used to understand the interactions among communities or cultures (Lodico, Spaulding, & Voegtle, 2010). Grounded theory and ethnographic studies are based on assumptions of a post-positivist paradigm (Hatch, 2002). Post-positivists are critical realists who believe reality exists but can never be fully captured (Hatch, 2002). The desired outcome of this study was not to develop a theory of blended learning or to understand the interactions among teachers implementing blended learning, hence neither a grounded theory nor ethnographic approach was appropriate for this project.

Phenomenological research and case studies are often framed on a constructivist paradigm that assumes individuals construct their own reality of the world (Hatch, 2002). Constructivists adhere to the existence of multiple realities (Hatch, 2002). Knowledge is constructed subjectively based on the participant's perspective of the phenomenon or case under investigation. In phenomenological research, the "essence of the human experience" is what the researcher wants to capture (Creswell, 2009), and the researcher's focus is on understanding the meaning of lived experiences to construct knowledge (Merriam, 2002).

Case study is a preferred qualitative methodological approach when examining contemporary events that the researcher cannot manipulate (Yin, 2014). Identifying the main subject of the study is critical to defining the case. In case study it is important the case be bound in order to distinguish between internal and external data (Yin, 2014). Case study can be organized around a single case or around several cases.

For my project study, a multiple case study design was the most appropriate qualitative approach for describing the attributes of a blended learning environment within one elementary school from the perspective of two upper elementary grade teachers from different grade levels. I examined each teachers' transition from traditional teaching to teaching in a blended learning environment. I considered each teacher a case, and the analysis for each case was focused on the perceptions of the teacher on their transition to a blended learning environment. The same information was collected from both cases and analyzed within each case and across the multiple cases.

Participants

In qualitative research the researcher's intent is to develop an in-depth understanding of the phenomenon within the participants' natural context and not to generalize results beyond the study's participants (Creswell, 2012). Therefore, information-rich cases are intentionally selected to best help the researcher understand the phenomenon. I used a qualitative multiple case study design focused on interviews with fourth and sixth grade teachers who implemented blended learning. Purposeful sampling is the strategy qualitative researchers most often use to select participants (Merriam, 2009). However, in case study, instead of using sampling logic, the researcher

uses replication logic and selects either a single case or multiple cases (Yin, 2014). Replication is either literal, seeking similar results, or theoretical, expecting contrasting results (Yin, 2014). For my project study, each teacher was considered a single case within a multiple case study using literal replication logic.

The criteria for case selection was upper elementary teachers from a public elementary school within a California school district that experienced whole-school transition to a blended learning approach within the past 4 school years. The participants were selected based on three criteria. The first selection criterion was grade level. I contacted upper elementary teachers teaching fourth, fifth, or sixth grade, asking them to participate in the project study. Upper elementary grade teachers were the focus of the project study due to the increased use of digital devices and applications required by Common Core State Standards (National Governors Association Center & Officers School, 2010) and used to implement personalized learning in a blended learning environment.

The second criterion for participant selection was numbers of years teaching the same grade level. Only teachers who had taught the same grade level since the fall of 2011 were included. The last criterion was number of years teaching at the same school. Only teachers who had taught at the same school since the fall of 2011 were included. The school began the redesign planning process in the spring of 2012. Implementation of the redesign proposals began over the following 2 years. In order to ensure that the perspectives I recorded were about the change from traditional teaching to blended teaching, the participants must have taught the same grade level at the same school site

since 2011. A demographic survey (see Appendix B) was distributed to all fourth, fifth, and sixth grade teachers at the research site to gather information on years taught at the school site, grade level taught, and years teaching at their current grade level for the purpose of selecting participants.

In qualitative research, the number of participants will vary according to the research design selected. Glesne (2011) suggested 30-50 interviews for ethnographic and grounded theory research. Five to 25 participants are suggested for phenomenological research (Creswell, 1998). In case study, a single case study could be an individual (Yin, 2014). In a multiple-case study the number of cases selected is discretionary, determined by the researcher's judgment of the number of replications needed. Generally two to three cases are sufficient for literal replication of multiple-case studies (Yin, 2014).

I obtained the names and email addresses of all fourth, fifth, and sixth grade teachers from the research site administrator. Next, I emailed all potential participants an overview of the research study (see Appendix C), an outline of the measures I would take to protect participants from harm and to protect confidentially, and a link to an online demographic survey. The survey asked for demographic information to help me to identify teachers that met the criteria for selection. The survey also collected other demographic data such as age, sex, and number of years teaching. The collection of other demographic data helped to further describe the research population, but had no impact on their inclusion in the case study. The target population was participants who met the required criteria.

This study featured two teachers from different upper elementary grade levels who taught within the same school site. The two teachers were each considered as individual units in a multiple case study. The same information was collected from each case and analyzed within each single case and across the multiple cases.

Ethical Considerations

Prior to embarking on the collection of data, I sent a letter of cooperation (see Appendix D) to the district's assistant superintendent of educational services to review, sign, and return to me. The letter of cooperation described the basic parameters of the research including recruitment, data collection, member checking, and the dissemination of the project study. I emailed the school site administrator the parameters of the research study. I obtained the contact information on the fourth through six grade teachers from the site principal. I emailed the teachers (see Appendix C) to explain the purpose of the study and to provide them a link to an online demographic survey (see Appendix B). As the surveys were submitted, I reviewed them to determine which potential participants met the eligibility criteria. The teachers who met the eligibility criteria were emailed a consent form with a request to reply to my email with "I consent" if they were willing to participate in the research.

I informed the participants that their participation was strictly voluntary, confidentiality would be ensured, and they had the right to withdraw at any time from the research study. The participants were provided information on the duration of the interviews and were asked to give consent to my use of an audio-recording device during the interview. The participants were also informed of any potential emotional and

professional benefits and risks that they may encounter due to participation. Participants were assured that the data collected, including the audio-recordings, field notes, and documents, would be kept in a secure location. I also explained that the data would be coded to protect their names and identities in order to keep them anonymous, and that digital files would be password protected.

Data Collection

The primary sources of data for my multiple case study were interviews with the fourth and sixth grade teachers, and classroom observations of selected teachers that met the established criteria. Interviews, classroom observations, document collection, and field notes are some of the data collection strategies used in qualitative research (Merriam, 2009). Conclusions from case studies based on multiple sources of evidence offer a more accurate depiction of an experience (Gagnon, 2010; Yin, 2014). Interviews are often primary mode of data collection in case study, but other sources of data should be collected to support the findings (Remenyi, 2013; Yin, 2014). I used multiple sources of data to provide corroborating evidence of the teachers' experiences for my project study. The site principal was interviewed to provide a broader range of historical evidence and a different perspective. I collected documentation of the redesign proposal to provide evidence of the phenomenon, and I conducted classroom observation of each teacher to corroborate the data collected from their interviews. The collection of multiple sources of data provides varied measures of the same phenomenon (Yin, 2014) and a greater depth of understanding (Hamilton & Corbett-Whittier, 2013).

Interviews, observations, and documentation are commonly used data collection techniques in case study. Interviews allow the researcher to have control over the type of information elicited from the participant (Creswell, 2012). Interviews can be conducted in person, over the phone, and through email. To ensure accuracy of participant responses, interviews can be audio or video recorded and then transcribed. Observations can provide more objective information about the phenomenon (Hancock & Algozzine, 2006). Documents can be in written, visual, and audio form (Merriam, 2009). Collecting as much data as possible is necessary in qualitative research to capture all elements of an event (Sandelowski, 2000) . I logged all data collection activities into a research diary. Maintaining a log of all data collection activities helps to establish reliability (Remenyi, 2013).

The participants in my project study participated in a 60 to 90-minute in-person interview after the instructional day had concluded at a location of their choosing. According to Seidman (2013), less than 90 minutes does not provide enough time for the participant to tell their story and more time is too long for one sitting. The primary focus of all interview questions for my project study was oriented towards understanding the transition to blended learning. The interview is a reflective process in qualitative research. Reflection is used to more deeply explore the participants' descriptions of the phenomenon (Flood, 2010). The goal of all interview questions was to focus on capturing the new phenomenon, the transition to blended learning. For my project study an interview protocol (see Appendix F) was established to guide the teacher interviews with open-ended semi structured questions. Asking open-ended questions about experiences

and perceptions provides opportunities for the participant to tell their personal stories (Seidman, 2013). Interviews were conducted with the teachers to gain insight into their perceptions of the transition from teaching in a traditional classroom to teaching a blended learning approach. During the interview, as needed, I asked guiding questions pursuing a richer understanding of their experience. I sent a follow-up email requesting clarification on some of the information gathered during the interview.

The interviews were audio-recorded with permission from each participant. Audio-recording the interviews allowed me greater presence in the interview, by focusing on the immediate conversation. I recorded field notes into my research diary to support the audio-recorded interviews. The field notes included comments on body language, intonation, and facial expressions, which are not apparent through an audio-recorded interview. An interview schedule was established with interview times convenient for the participants. Ninety minutes was planned for each interview. I provided a written copy of the interview questions to the participant during the interview. A digital audio-recording pen and notebook were used to record the interview. The pen digitally records the audio and syncs with the writing in the notebook. The recording pen and notebook provided a digital file of the audio and written notes. Prior to the interview, participants were emailed a copy of the consent form to review. At the beginning of the interview I reviewed with the participants the consent form (see Appendix E) to understand if they have any questions or concerns about the interview or research study.

Documents were collected from the site administrator to support evidence of the phenomenon. “Document mining is another source of data collection that can help to

validate and enhance evidence collected from other sources (Yin, 2014).” The site administrator provided several documents: Blended Learning in School District, Elementary School, School Info, Blended Learning Proposal for 2014-15, and RFP for Blended Learning Schools in 2014-15 (see Appendices G-K). Each document was analyzed to corroborate or contradict information gathered during the participant interviews.

Classroom observations were conducted to verify information from the participant interviews. Observational evidence aids understanding the phenomenon (Yin, 2014). When conducting observations the researcher must first determine the focus and purpose for the observation (Hamilton & Corbett-Whittier, 2013). The focus of the observation was the participant in their classroom during blended learning time. The purpose for the observation was to validate the attributes of blended learning within the participant’s classroom. The researcher took notes during the observation to describe the classroom organization and document actions of the teacher and students. Each participant was observed for one class period, approximately one-hour.

Role of the Researcher

The researcher has an ethical responsibility to consciously consider and protect the rights of participants. The role of the researcher must be clearly defined due to their involvement and close contact with participants. I am a retired educator and I had no current or past connection to the research site, administrators, or participants that were involved in my study. I became aware that the site would fit my research parameters after attending a conference presentation and reading follow-up news articles. I met with the

Assistant Superintendent of Educational Services at the school district and described my project study. At the end of our conversation I asked for permission to conduct my research in the school district.

I have an interest in the potential of blended learning to personalize instruction in public schools. However, I am concerned about the training and support teachers are provided to successfully implement blended learning. It is important for a researcher to identify their perspective and biases on the topic in order to understand the possible influence on data collection and interpretation (Merriam, 2002). To control my perspective and bias from influencing the data collection and interpretation I recorded reflective field notes into my research diary after each interview. I also maintained a research diary by logging details of all data collection activities.

I successfully completed the National Institutes of Health Office of Extramural Research web-based training course "Protecting Human Research Participants" on April 12, 2012, certification number 909544.

Data Analysis

The interview data from the fourth and sixth grade teachers and the administrator at the research site were collected using a digital audio-recording pen and notebook. The audio-recorded interviews were digitally downloaded onto my computer. I transcribed verbatim the audio-recording into a digital document. Field notes and documentation collected were logged into a digital research diary.

The goal of data analysis is to make sense of all data collected (Merriam, 2009). To make sense of the data the researcher must continually code and analyze the data

(Gagnon, 2010). The interview transcriptions and field notes were read through numerous times to grasp the meaning of the data. A preliminary list of codes was created using information from the interview protocol (see Appendix E) to align data with the research questions. The initial codes used were: decision process, challenges, why change, blended learning definition, pedagogical changes, transformation, student changes, before change, support. Codes are category labels that help identify units of information (Miles & Huberman, 1994). Codes may be redefined or discarded once a researcher begins data analysis (Miles & Huberman, 1994). After continuous analysis of the data, categories were refined to: decision process, blended learning definition, support needs, and changes.

The study used pattern-matching for rival explanation analysis approach (Yin, 2014). Coded data is analyzed seeking emergence of meaningful patterns (Gagnon, 2010). A predicted pattern and rival explanation is identified, then the process of pattern-matching is used to determine which pattern fit the data (Cao, 2007). The two rival patterns for the project study was the implementation of blended learning and the absence of blended learning. The empirical pattern derived from collected data was then matched with the predicted pattern. Interview data were analyzed first for a single case and then between cases to match the predicted pattern to investigate the transition to blended learning. Individual cases within a multiple case study were analyzed separately (Yin, 2014), then a cross-case analysis was performed seeking similarities and differences between the two cases (Gagnon, 2010; Yin, 2014). The predicted pattern and rival explanations for pattern-matching analysis focused on the changes in teaching practices

from traditional instruction to a blended learning approach based on seeking the attributes of blended learning, changes in pedagogical strategies, and needed support.

Data analysis should include attention to all evidence collected (Yin, 2014). Interviews, classroom observations, and documents were the types of data collected for the research study. The interviews for each participant were transcribed and coded based on the predicted pattern predefined criteria: attributes of blended learning, changes in pedagogical strategies, and needed support. The classroom observation for each participant was then coded and cross-analyzed to support the predicted patterns or the rival explanations from the interview data. Last, the documents collected and the interview with the site administrator were analyzed to identify elements supportive of the analysis of the participant interviews and classroom observations.

In qualitative research it is important for the researcher to identify personal bias and suspend judgment of the phenomenon under investigation (Merriam, 2009). Audio-recordings of the interviews help to reduce concerns of bias. Every effort was made to withstand objectivity in the interviews, during observations, and the review of documents. To maintain neutrality during the interviews and observations I made a conscious effort to be aware of my body language, expressions, and tone of voice (Yin, 2011).

Credibility of Findings

The primary instrument for data collection and analysis is the qualitative researcher, who may present validity and reliability problems. To attain credibility, I established procedures to check validity and reliability of data collection and analysis.

Credibility refers to the alignment between participant's perceptions and researcher's interpretation of events (Lodico et al., 2010).

Validity in qualitative research refers to the extent to which research findings are an accurate representation of the perceived reality (Hamilton & Corbett-Whittier, 2013). In an effort to increase the validity of the study I embedded member checking and data triangulation strategies. Member checking was conducted during data collection and after the initial stage of data analysis. During each interview I summarized key points back to the interviewee in an effort to obtain confirmation on the accuracy of my synopsis (Hamilton & Corbett-Whittier, 2013). I emailed the interviewee with a digital copy of their interview transcript and my preliminary analysis to review. I specifically stated what type of feedback I was seeking in my summary email. Establishing guidelines helped to ensure that member checking informed the process (Hamilton & Corbett-Whittier, 2013).

Data triangulation occurred through the collection and analysis of multiple sources of data (Yin, 2014). I reviewed interview transcripts, field notes, observation notes, and documentation of redesign proposals to develop convergent evidence. Triangulation allowed me to corroborate findings and render the participant's perspective accurately (Gagnon, 2010; Yin, 2014).

Reliability refers to the consistency and replication of a qualitative research study. I maintained a research diary to document data collected and processes of data analysis for the study. Documenting processes for data collection and analysis increases consistency of interviews and replicability of findings (Gagnon, 2010). The use of the varied data checking strategies provided an assessment of the research study credibility.

Limitations

There are several limitations to this study that are worth noting. The focus of this study was the transition to blended learning in K-6 public schools. Findings from this study are not generalizable to educational settings outside of the K-6 context. This case study is bounded in one K-6 school. Another limitation for this study was there were only two grade levels represented.

Data Analysis Results

The purpose of this study was to identify and understand the challenges and pedagogical transformations of elementary educators who recently adopted blended learning. The concerns-based adoption model provided a conceptual framework to examine teacher concerns and level of implementation of innovative change. In-person interviews, direct observations, and documentation were collected and analyzed to understand with greater depth teachers' perceptions of the transition to a blended learning approach to instruction. Two teachers from different grade levels at the same school were each considered individual cases for the multiple case study. Both teachers were interviewed and then observed in their classroom during blended learning instruction. The site administrator was interviewed and provided documentation on the school's transition to blended learning. The project study was guided by the following research questions:

R: What are upper elementary grade teachers' experiences with blended learning?

Subquestions to further defined the study:

SQ_1: How are upper elementary grade teachers defining blended learning at their school site?

SQ_2: What are upper elementary grade teachers' perceptions of their transition from traditional teaching to a blended learning approach to teaching and learning?

SQ_3: How has teaching and learning changed since their school adopted blended learning?

This study was designed as a qualitative case study, which allowed me to generate deep and rich data to understand what blended learning looks like through teachers' perceptions. The project study was conducted in the summer and early fall of 2015. An individual email was sent to all upper elementary teachers after an informational meeting with the research site administrator. The email provided an overview on the project study, informed them that their participation was voluntary, that all information would be held in confidence, and asked them to complete an online demographic survey. One teacher responded, met the criteria, and was informed by email that she had been selected to be a participant. Several emails were sent seeking other participants with no reply. With approval from the site administrator, I met with the upper elementary teachers on site to provide them information on my project study and then followed-up with one last email. One more teacher replied with interest in participating in the study and met the criteria for my study. Both teachers taught different grade levels, had been teaching at the research site and had not changed grade levels since before the transition to blended learning. The study focused on investigating the blended learning practices of two teachers from two different grade levels within a single school, treating them as multiple

cases using literal replication logic. The selection of two cases believed to be literal replications seeks to address "how and why a particular intervention has been implemented smoothly (Yin, 2014)."

Data were collected first through an interview with the two research participants and school site administrator. Documentation was collected from the school site administrator. An observation during blended learning time was conducted in the classroom of each research participant. The interviews with the research participants were conducted at an off-site location selected by each participant. The interviews were audio-recorded, with permission, and field notes were taken. The participants were given a copy of the interview questions and informed that these questions would be used to guide the interview, but additional questions may be asked to clarify or provide additional information. Each interview lasted about one hour. The interview with the school site administrator took place in her office. She provided documentation submitted to the district with details of the school's blended learning program.

An observation was scheduled with the research participants to observe their blended learning time. During the observation notes were taken on what the students were doing and what the teacher was doing. No one was interviewed during the observation. An hour was spent in each classroom observing both the teacher and students. Each classroom was set up to accommodate three student rotational groups, with 8 to 11 students in each group. One classroom had students sitting in individual desks clustered together to form the three groups and the teacher moved to each group for direct instruction. The other classroom had six-foot tables on wheels for the groups of

students to sit around and the students moved to the teacher station for direct instruction. Both classrooms had laptop computers in a storage cart for students to use, liquid crystal display (LCD) projector and document camera for large screen presentations, and wall mounted whiteboards.

Data were analyzed first within an interview and observation of a single case to support the predicted pattern or the rival explanation to understand the changes in teaching practices from traditional instruction to a blended learning approach based on seeking the attributes of blended learning, changes in pedagogical strategies, and needed support. Aligning the interview questions to support the research questions the preliminary codes used in data analysis were decision process, challenges, why change, blended learning definition, pedagogical changes, transformation, student changes, before change, support. Further analysis for pattern-matching and rival explanations the data categories were refined to: decision process, attributes of blended learning, support needs, and changes. The documents collected were analyzed seeking elements in support of the predicted pattern or rival explanation.

Single Case Analysis by Theme: Case 1 Teacher A

Decision process.

Interview questions were asked to gather an understanding about the school's decision process and reason for changing to a blended learning approach to teaching and learning. Teacher A perceived the decision to be "top down" though the teachers were "made to seem like it was totally our choice." Regarding the transition to blended learning discussion Teacher A stated that the teachers "wanted to keep our own kids" in

order to keep the connection with their own group of students. The site administrator "let us go slower and figure out what we wanted to do". The decision was made to use a model of rotating students within a teacher's own classroom.

Teacher A expressed a perceived feeling before the transition that children were being left behind in the traditional model of whole group instruction. Before the transition, Teacher A also perceived a need to get to the end of the math textbook. "I knew what the standardized text covered and I knew I needed to get my students through that material. I was leaving children behind but they needed to be exposed to it". Teacher A stated, "there were a lot of kids that just weren't catching on, I knew that wasn't being effective, but I didn't know another way."

Attributes of blended learning.

I asked Teacher A to define blended learning. Teacher A to identify blended learning stated two elements: time when students are working independently and time when students are working on computers. Teacher A defined blended learning as "incorporating computers into small groups and there is a time when kids are not being taught by you [the teacher]".

Support needs.

I questioned Teacher A about the support she was provided during the transition to blended learning, the ongoing support, and support still needed. Teacher A perceived there was "no real support" for the transition to blended learning. She stated, "I had to figure out what to do with my kids". Teacher A reported that "the teachers were told what they could not do during independent time but we had to figure it out on our own".

Teacher A would have liked "more guidance on what should I be doing" and would have liked to "see examples of successful blended learning". She felt it was "difficult in the beginning because we didn't have very much guidance of what we were supposed to do."

> We had to figure out what we would do with our kids, there was no real support. Last year we were given iReady books we were supposed to be part of this iReady study because we use iReady during the online portion and we received books. But they can't just be given out as busy work, there is a lot of instruction. We were told not to just give worksheets, not to just have silent reading. There were a lot of nots that we were told we could not do during independent time, but we had to figure it out on our own. We were given support in analyzing data and figuring out where to group your kids and what they need help in. It's been hard for the last 3 years trying to put together the independent work for two to three groups.

When asked about the training the teachers received to implement blended learning Teacher A stated she would have like more training on project-based learning and Khan Academy. I clarified that there was no training on a change in pedagogy to implement blended learning and that the teachers needed to figure out what they wanted this to look like and how it was going to work for them. Teacher A agreed. Teachers from another school came to observe the classrooms during blended learning time and teachers from both schools met by grade level and were given time to share their ideas. Teacher A felt "that was very beneficial to hear what they [the other teachers] were doing".

Changes.

Most of the interview focused on pedagogical changes and changes in student learning. Teacher A uses a blended learning approach to teaching and learning during math and language arts instructional time. Teacher A stated that her teaching during blended learning time changed from primarily whole group instruction to "three groups that stay in the same place for center and I circulate and start with the low group while the middle group is doing their independent work and the high group is doing the computer." She stated that "each group has a section of 25 minutes where they are with me, or they are doing independent work, or computer work." A benefit Teacher A perceived about working with small groups was "you feel a better connection and understanding of each student than you used to have". Teacher A commented that the students "know that they have more of my attention than when I am trying to teach a whole class and scanning around". When talking about how Teacher A likes working with groups she stated, "I only do small groups", "you can have longer conversations with them".

A change Teacher A attributed to implementing blended learning was:

> I really do think it is because of blended learning that I am really able to know my students. By working with them consistently in a small group, because when they are in a big group the lower ones get lost and you don't know how much they don't know. Now I can pinpoint what they don't know and what they do know.

Another change Teacher A noted about teaching math was:

> Ever since I started blended learning I haven't given chapter tests because I know already how each student is doing. I can document it with exit tickets and I can

> tell their parents at conference time because I know what they can do. Before I really thought that tests, placing them in my gradebook and averaging them and writing that on their report card was all. It gave students doing well a clue that, oh I have an "A" average in math. But there were a lot of kids that just weren't catching on. I know that I wasn't being effective, but I didn't know any other way.

I questioned Teacher A on how student learning has changed in her classroom during blended learning. She perceived that students in the lower math group were gaining more confidence and understanding because they were working at an appropriate pace for them. Also, she believed she was providing them with a really strong background that would help the students in the future. Teacher A stated that the students "are interacting more with the teacher" and the "students can't hide like they do in a whole group". Teacher A stated that she would post three different homework assignments for both math and reading and the students needed to keep track of their group and their assignments. I clarified with Teacher A that it sounded as though she was helping kids to become more independent and more responsible for their learning. Teacher A agreed that the students "need to take more ownership". The groups are flexible and students can move from one group to another.

Single Case Analysis by Theme: Case 2 Teacher B

Decision process.

Teacher B perceived that there was a team effort in the decision to transition to a blended learning approach to teaching and learning. The site administrator and several

teachers, including Teacher B, were on a committee to investigate the school's restructuring efforts. The committee would have meetings, trainings, and site visits to other schools that have implemented blended learning. Allowing teachers to retain their own students during the school day and the freedom to design a way to make it work for each teacher at their school was perceived to be an important issue by Teacher B.

> The more and more we got that in our heads that we can make time for this and we can restructure our days to meet those specific needs it got us on board because those frustrations that we were having could be alleviated. It wasn't an easy transition, it's not a traditional format, it's not what any of us went to school with.

Teacher B perceived the site administrator to be supportive with the transition to blended learning by giving "teachers the freedom to try to design what would work best for our own classrooms, but everyone had the expectation that they were doing this." The "frustration of knowing that everyday you're missing maybe one or two students in your lesson," supported Teacher B's reason for implementing the change from traditional teaching to a blended learning approach. "That feeling of how can I make enough time in the day to get to those kids in a meaningful way."

Attributes of blended learning.

Teacher B defined blended learning as,

> Blended learning is giving students opportunities to reach goals, set goals while working at their own pace. Getting clarification on concepts they need and not spending their precious class time on stuff they already know. So blended

learning gives you that chance to take them where they are at and push them to the next level in a way that is very hard to do as a whole group all the time.

The belief that blended learning allows students' more autonomy over their learning was perceived by Teacher B. Before implementing blended learning, Teacher B stated that students would be provided opportunities to have autonomy within a project, but not over their learning. Blended learning facilitates students to be more self-directed with their learning.

Support needs.

Teacher B perceived the site administrator provided support for the transition to blended learning by giving teachers the "freedom to try to design what would work best for our own classrooms". The site administrator supported the teachers psychologically by letting them know that "it [blended learning] didn't have to look one way initially", to be "comfortable with a level of ambiguity", and "you're going to make mistakes". Teacher B stated that hearing this from the site administrator helped to ease a little of her anxiety.

During the interview Teacher B identified specific needs to help her during the transition to blended learning. Teacher B advocated for time out of the classroom to observe other teachers "so I can get new ideas," time to "plan and create action plans," and "time to process". Another need of Teacher B was to "someone to come in and to see if there's areas where I can make adjustments". Teacher B perceived more training was needed on navigating the online reading program, how to read the data, and how to use the data to create student groups that were "appropriate and constantly flexible"

Changes.

The transition to blended learning began initially for Teacher B as "an hour or two a day when I first started" to increasingly more of the school day. "My teaching has changed through a shift in my time" Teacher B commented. The time shift change Teacher B noted was from preparing "one whole group lesson" to planning "three to four very focused content driven or skill driven mini lessons". Teacher B stated:

> Instead of planning a lesson that was going to be an hour or hour and a half long, it was now 20 minute mini lessons and how to use that time effectively with that group. I used data to guide my instruction. The shift from being constantly the facilitator for a whole group then became a facilitator for my mini group and creating lessons for the collaborative group so that they [students] could guide it. It was a lot of front loading.

The organization of Teacher B's classroom changed when blended learning was implemented from an hour block of whole group instruction to students being grouped into initially three groups rotating every 20 minutes through learning stations. "I have a collaboration station where they are working together on something. There is an independent work station where students work online. Then I have a teacher small group station." With 33 students in the classroom, over time Teacher B perceived that three groups of 11 students was still too large of a group so she added a personal learning station, "it was hard to make a group where all those kids needed to work on the same skill. So, I started to split it into four groups."

When asked about the difference in student contact from whole group instruction to small group instruction Teacher B perceived that she was “doing much better with them in small groups”. “I know I can meet with three or four groups in a day in a meaningful way” stated Teacher B. At first Teacher B commented that she was nervous about the accountability of the groups that were not meeting with her, “how am I going to ensure that they are actually doing what they say”. Teacher B commented, “when you have them create action plans with deadlines they don’t mess around, they want to meet their deadlines too”. The ownership students were taking for their learning was perceived by Teacher B to be a significant change in student learning.

A pedagogical change Teacher B talked about was a focus on teaching more cognitive skills than content.

> My shift [in teaching] is to more of the cognitive skills, such as organization, note-taking, how to take what you've learned and internalized it into your own work. Those skills are going to be more of my focus now rather than teaching them "this is the definition of a fraction". That's a shift for me, that's a huge release of control.

Teacher B commented that during the upcoming school year her class would be shifting to a “personalized learning model”. A computerized platform and one-to-one digital devices were being adopted. Teacher B perceived the platform’s dashboard with all the lessons and resources will allow the student to be “truly self-directed”.

Multiple Case Analysis by Research Question and Subquestions

Research Question.

What are upper elementary grade teachers' experiences with blended learning? The primary themes related to the research question were the support teachers received through the blended learning transition, the support needed through the transition, support the teachers still need, and the challenges the teachers faced making the transition to blended learning. Transitioning from a traditional teaching environment to a blended learning environment required the teachers to change their perceptions and behaviors of their previously established traditional instructional practices. Both Teacher A and B perceived that the transition to blended learning was difficult due to a lack of understanding about blended learning. Teacher A stated that there was "no real support" for the transition to blended learning, that it was "difficult in the beginning because we didn't have very much guidance". Teacher B stated that the transition to blended learning was not an easy transition, "it's not what any of us went to school with". Teacher A "would have loved to see examples of successful blended learning". She commented that they "were never given a definition of [blended learning] what this meant and we're told we are going to be transitioning to blended learning and we were to create what that meant". Teacher B expressed a concern to "have more processing time because I wanted it to work day one." The site administrator stated that the expectation initially was to create a rotational model for blended learning in the classrooms. The new goal for blended learning is "to continue to the transition to personalized learning." The site administrator commented that the staff needs "more professional development on what that [personalized learning] would look like."

The site administrator stated the rotational model initially was comprised of three student groups: individualized instruction working on the computer, teacher led instruction, and independent work. The rotational model for blended learning was described in the *Blended Learning Proposal for 2014-15* (see Appendix I) and the *RFP for Blended Learning Schools in 2014-15* (see Appendix J) documents the site administrator submitted to the district. During the interview site administrator expressed a concern that the independent group work must be tied to the standard being taught and student work could not be a worksheet. Both Teachers A and B conveyed the need for more guidance and support on planning work for the independent group. Teacher B stated that she would have liked to have a curated list of quality resources for students and to help build lesson plans. According the concerns-based adoption model, stages of concern, the teachers quickly progressed from a general awareness of the transition to blended learning to feelings of anxieties and concern about their skillset to implement the change.

Subquestion 1.

How are upper elementary grade teachers defining blended learning at their school site? Teacher A defined blended learning as incorporating the use of "computers into small groups" and that there is a "time when kids are not being taught by you [their teacher]". Teacher A stated that she was informed the school would be "transitioning to blended learning and we [the teachers] were to create what that [blended learning] meant. In contrast, Teacher B's definition of blended learning focused on the change in student's taking ownership for their learning by "giving students opportunities to set and reach

goals while working at their own pace". Teacher B perceived that class time was more productive because students were not spending class time on stuff they already know."

The *Blended Learning Proposal for 2014-15* (see Appendix I) document written by the site administrator detailed the non-negotiables and expectations for the site's blended learning model:

- You must implement blended learning in your classroom for language arts and math.
- Blended learning rotations will be a minimum of 20 minutes each for each subject.
- All students must rotate through the teacher for each lesson.
- Data is used to group students and create differentiated lessons.
- Lessons must address struggling learners and enrichment for higher learners.
- Students must be grouped according to need and it should be flexible so students move in and out of a group based on data.

The site administrator stated the definition of blended learning for the school site is currently being redefined. The definition used during the transition to blended learning for the school site was "differentiate and individualize learning for students as well as teachers providing small group instruction for student needs". The current, redefined, definition of blended learning is a move toward "next generation personalized learning...personalizing towards what students actually do need and what their interests are in internalizing the habits of success and cognitive skills more than the content." The

site administrator differentiated blended learning as focused on content skills and personalized learning focused on cognitive skills.

The research participants were asked in what ways teaching and student learning changes in a blended learning environment. Teacher A commented that students are now grouped into three groups and that she circulates through each group instead of teaching whole group instruction for reading and math. For each subject, the groups rotate through small group instruction with the teacher, lessons on the computer, and independent work. The groups are created based on student's ability levels for the subject and students can move within groups. In Teacher A's classroom, the students remain in their seat and Teacher A moves to each group for instruction instead of the students moving to a new station. I observed the grouping of students and the transition from one station to another during math time. The teacher moved to the group for instruction and students retrieved laptops for computer work, but remained in their same seats.

Teacher B commented that she went from teaching whole group lessons to the entire class to teaching mini skill driven or content focused lessons to small groups of students. Teacher B grouped her students into three rotating stations: collaboration station where they are working together on something, independent work station where students work online, and teacher facilitated station. In Teacher B's classroom, I observed students working within the three groups.

Both Teacher A and B's definition of blended learning included a rotational model for students to move from station to station receiving a focused small group lesson delivered by the teacher. In both classrooms students spent time on the computer for both

individualized instruction and personalized instruction. I observed students using a computer program that provided lessons at their level of needed instruction. I also observed students using the computer for personalized instruction, three students in Teacher A's class were learning to code. Both classrooms had a group of students working on independent or collaborative work. I observed in Teacher B's classroom students collaborating on a project, while other students were reading and taking notes from the textbook. The definition of blended learning as defined through the interview and classroom observation was aligned to the site administrator's definition of blended learning.

Reflecting on the concerns-based adoption model, levels of use dimension, analysis of both teachers' definition of blended learning indicates established patterns of use aligned with the expected change in practice identified by the data collected from the site administrator. Teacher A and Teacher B have implemented expected changes identified by the site administrator in their instructional practices. The extent to which the change is implemented is identified by specific behaviors (Saunders, 2012). Teacher A appears to have established a patterned use of the innovation, blended learning, according to (Hall, 1975) is *IV, A Routine* level of use. Teacher B has assessed the impact on her students and is initiating changes to the use of the innovation, blended learning, at the *IVB Refinement* level of use (Hall, 1975).

Subquestion 2.

What are upper elementary grade teachers' perceptions of their transition from traditional teaching to a blended learning approach to teaching and learning? Through the

interview questions and documents collected the decision process and reason for change was explored to address the research question. In the spring of 2012 the district office focused on blended learning as a new model of learning to be implemented in the district's schools. In the fall of 2013 the site administrators were asked to provide the district office a summary of their blended learning programs in 2013-14 and by the end of December a request for proposal for the 2014-15 school year that detailed the school site's model and support needs for their blended learning program (see Appendix F). The school site focus during the 2012-13 academic year was on rigorous lesson planning and the use of thinking maps as tool for higher order critical thinking. How to differentiate instruction for challenged and advanced students became the incentive for the school site's blended learning model (see Appendix G).

The site administrator proposed a blended learning rotational model within the classroom as a way to differentiate instruction. According to the site administrator, differentiating instruction became the reason for implementing blended learning. The site administrator stated, "There are varying needs of students so we need to differentiate. I gave them the freedom to define the how. I presented my idea of the blended learning rotational model. I told them that they are welcome to come up with anything else they think would be equal or better if they wanted to and present it to me and I would be open to it. And nobody did. So then my way went through." Teacher B was on a committee to explore how blended learning would work at their school site and perceived that the process was a team effort and everyone had input into the decision process. Contrary to Teacher B's perception of the decision process, Teacher A perceived the decision to

transition to a blended learning model was “very top down” from the district office, “it was made to seem like it was totally our choice”. Both teachers perceived the site administrator to be supportive of their needs in the decision process and initial transition to a blended learning model. Teacher A stated the site administrator “let us go slower and figure out what we wanted to do”. Teacher B commented, “different grade levels and teachers were given the freedom to try to design what would work best for our own classrooms.” Both teachers expressed concern that before implementing blended learning they were not reaching all students. Teacher A stated, “I was leaving children behind….in a big group the lower ones get lost, you don’t know how much they don’t know.” Teacher B stated, “that frustration of knowing that everyday you’re missing maybe one or two students in your lesson, that feeling of how can I make enough time in the day to get to those kids in a meaningful way.” Both teachers perceive the transition to blended learning has been beneficial for all their students.

During the summer of 2013 the site administrator and a few teachers attended a Professional Learning Conference (PLC) for the purpose of bringing back a plan to implement more productive grade level PLCs. In Appendix H, the site administrator wrote “Our PLCs are imperative because this is where we have spent the majority of our time planning the independent work, project based learning, collaborative work and teacher direct instructions that we use during our blended learning time.” The PLC schedule was designed for grade levels to meet four times a month to use data to collaborate on specific standards and differentiate ways to teach to reteach a concept (see

Appendices G and J). Professional development on project-based learning was stated as a need (see Appendix G).

Teacher A perceived that "no real support" was provided for the transition to blended learning, "we had to figure out what would do with our kids." The independent station was perceived to be the most challenging station to develop learning experiences for students. "We were told not to just give worksheets, not to just have silent reading, there were lots of nots that we were told we could not do during independent time but we had to figure it out on our own." Teacher A stated she would have liked more support with resources and determining the type of work for the independent station and how to effectively group students.

Teacher B stated that early in the transition process she attended professional development sessions on project-based learning and was able to attend observations of schools that had implemented varying blended learning models. During the summer of 2015 Teacher B attended training on a personalized learning platform that would be implemented during 2015-16 school year. However, Teacher B would have like curated resources to help with lesson planning and for student learning.

Examining the attitudes and motivations about the change through the lenses of the concerns-based adoption model, stages of concern dimension, both Teacher A and Teacher B are at different developmental stages of concern about the innovation, blended learning. Teacher A appears to be at stage *III Management* level of concern. Teacher A has begun implementation of blended learning, but shows concern about the logistics of the implementation. Whereas, Teacher B appears to be functioning at stage *VI Refocusing*

level of concern. Teacher B is considering modifications to maximize benefits. Teachers move at their own pace through the different stages of concern dimension to implement an innovation. Teacher A and Teacher B have different perceptions of the transition process and support needed and are progressing through the stages of concern at their own pace.

Subquestion 3

How has teaching and learning changed since their school adopted blended learning?

Traditional instruction, instruction prior to implementing blended learning, consisted of whole group instruction for each subject taught throughout the school day. Lessons were taught to the whole class and the same assignments were given to all students in the class. Some differentiation of assignments occurred, but all students moved along in the curriculum learning the same content at the same time. Teacher A stated "I would work through the math textbook because I needed to get to the end because I knew what the standardized text covered and I knew I needed to get my student through that material. I was leaving children behind but they needed to be exposed to it." In an effort to meet student needs, Teacher B would meet one-on-one with students before or after school.

Teacher A has transitioned to a rotational blended learning model for reading and math instructional time. Students were grouped in three stations. The students may be in different groups for reading and math. Teacher A stated the groups are flexible; students are not always in the same group. Students stay seated with their group and Teacher A

rotates the group. The groups are teacher instruction, independent work time, and computer time. Teacher A begins the reading or math time with an overview of what students will be doing at each of the rotations. Students working in the independent rotation are working on an assignment independently or collaboratively. The computer station provides differentiated and personalized instruction for students. During computer rotation students may work through a computer program for reading or math that assesses their level and allows them to move through at their own pace, differentiating instruction for each student. Students can also personalize their learning by working through programs of interest. I observed a few students personalizing their learning through different computer programs. Some students were learning coding; one student was learning biology.

At the teacher instruction rotation, Teacher A teaches a lesson on a concept or skill to each of the small groups. The lesson is based on the level of instruction the group requires, the same concept or skill may be taught but varied with complexity. Teacher A stated "I am really able to know my students. By working with them consistently in a small group, because when they are in a big group the lower ones get lost and you don't know how much they don't know." Teacher A perceived that working with smaller groups of students you can better connect and understand each of the students. When Teacher A first implemented blended learning in math she was worried that the lower math group was not going to learn all they needed to know according to the math textbook. Now Teacher A believes she has provided the lower math group with a stronger background for what the students have learned in math and that the students are gaining

more confidence and understanding. “They [the lower math students] are working at the pace they need.”

Teacher B initially transitioned to a rotational blended learning model for both reading and math. Teacher B started with three rotational groups: teacher station, online learning station, and collaboration or independent station. Later Teacher B created four groups because it provided an opportunity to work with even smaller groups of students during the teacher station, as well as smaller groups for the other three stations. Teacher B perceived the blended learning model for reading and math to be so successful that she expanded it to social studies instructional time. The rotational time started with 20-30 minutes per rotation and was extended to 45-minute time blocks. A personalized learning platform will be implemented this year that will assist teachers in providing differentiated and personalized learning opportunities online. Teacher B attended a training session during the summer and is excited to implement it in her classroom this year. Analyzing the concerns-based adoption model, levels of use dimension, Teacher B is at the refinement level where she has assessed the impact the transition has had on her students and is initiating changes to her adoption of blended learning. Teacher B implemented the rotational model of blended learning for both reading and math instruction and initiated change through the expansion to social studies instruction. Another change Teacher B has initiated is redefining stations to better meet the needs of her students. The individual station was changed to a personalized learning station using a computer learning platform to guide the learning.

Both Teacher A and Teacher B perceive the students to be working at a much more rigorous level. Teacher A and Teacher B commented they are interacting in more meaningful ways with their students and students can't get lost in the classroom. Students are more independent and more responsible for their own learning. Teacher A and B attribute the changes in teaching and learning in their classrooms with the transition to blended learning. Teacher B wrote "We are better meeting students' needs and preparing them for their future years in school/life. Students are engaged, challenged, and have autonomy in their learning (see K)."

Summary

A qualitative multiple case research design using literal replication logic was used to capture the perceptions and descriptions of upper elementary teachers' transition from traditional teaching to a blended learning approach. The teachers' perspective on the attributes of blended learning, changes in pedagogical strategies and support needs were gathered through one-on-one interviews and observations. An interview with the site principal provided historical evidence and a varied perspective. Documentation from school site redesign proposals provided corroborating evidence for the study. The data collected and analyzed addressed the research questions.

Through the analysis of the data from the interviews and observations, Teacher A and Teacher B revealed that blended learning has shifted their instructional approach from teacher-centered to student-centered allowing students to become more independent and responsible for their learning. The analysis also revealed that blended learning provides increased teacher-student interaction. The teachers perceived that they know

more about the needs of each student. However, the teachers voiced they would have liked more guidance and support during the transition to blended learning.

The concerns-based adoption model, stages of concern dimension provided an identification of the developmental stage teachers were experiences as they implemented the transition from traditional teaching to blended learning. Each teacher was at a different stage of concern. Teacher A was willing to experiment with the change but expressed concerns about the logistics of implementation. Teacher B was accepted the change and was considering modification to maximize benefits. The participants stage of concern for implementation match with their level of use. The concerns-based adoption model, level of use dimension identifies behaviors related to the implementation of a change in practice. Teacher A appears to have established a pattern of use for blended learning. Teacher B has assessed the impact on her student and is initiating changes in how she implements blended learning. For both teachers, their stage of concern coincides with their level of use, following a congruent developmental progression.

A self-paced online professional development program for teachers transitioning to a blended learning environment was designed to provide the training needed to support teachers in transition. The content for the self-paced online professional development program includes information the teachers expressed they needed to transition to blended learning. In the next section the project for the study will be described.

Section 3: The Project

Introduction

As I detailed in Section 1, the purpose of this qualitative multiple case study was to identify and understand the challenges and pedagogical transformations of elementary educators who recently adopted blended learning. The study defined what blended learning means to the teachers, identified what pedagogical strategies differed from traditional to blended teaching, and what types of support were needed to make the transition.

In Section 2, I discussed the qualitative multiple case study research methods used to investigate the problem. Data collection included interviews, observations, and a review of documents. I first coded data for rival explanation resulting from pattern-matching analysis. Then I performed a cross-case analysis using literal replication logic. The research questions were used to guide the analysis of data. The study findings resulted in my recommendations for a self-paced online professional development program to provide support for teachers transitioning from a traditional learning environment to a blended learning environment.

In Section 3, I present a self-paced online professional development program to assist teachers in defining blended learning and understanding the associated changes in instructional strategies and the learning environment. This section begins with a description of the project. In subsequent sections, I describe my goals and rationales for the project, review of the literature, and discuss project implementation, the project evaluation plan, and project implications.

Description and Goals

I developed a self-paced online professional development program in response to the clear need to assist teachers in defining blended learning and identifying changes in instructional strategies and the learning environment when transitioning from a traditional approach to teaching to a blended approach to teaching. The professional development program will provide some of the support teachers need to successfully adapt to the change. Developing the professional development program in a self-paced, online format provides teachers flexibility in managing their learning (Vu, Cao, Vu, & Cepero, 2014). Online professional development programs allow teachers to work at their own pace.

In this study, I interviewed and observed two teachers from two different grade levels in one school to determine their perceptions of the school's transition to a blended learning environment. Data analysis indicated that support was needed in defining blended learning and curating educational resources. Teacher A reported a need for more guidance on what she should be doing and for more examples of successful blended learning. Teacher B expressed a need for curated resources to help with blended learning instruction.

One goal of the proposed online professional development program is for teachers to be able to define what blended learning is and what blended learning is not. A second goal is to be able to identify the purpose for transitioning to a blended learning environment. The third goal is to explore examples of different blended learning models. The fourth goal is to curate instructional resources for teaching and learning in a blended learning environment.

Rationale

The research findings clearly indicated that the teachers' perceived lack of knowledge about blended learning and blended learning instructional strategies were concerns when implementing blended learning. The research participants had varied understandings of blended learning and the needed changes in instructional strategies and learning environments. A self-paced online professional development program allows participants the flexibility to move through the curriculum at their own pace and path.

The data I analyzed in Section 2 indicated that the two teachers under study from different grade levels at the same school perceived a need for more guidance and support during the transition to blended learning. However, the perceived guidance and support indicated by the teachers varied. A self-paced online professional development program would thus allow the teachers to manage their learning paths based on their perceived needs. According to Brooks and Gibson (2012) , online professional development is …

> more personally relevant, meaningful and engaging to teachers because they are able to 1) have choices in their learning experiences (e.g. opting in and out), 2) take advantage of the flexibility of the technology (e.g. learn when and where it suits their schedules), 3) customize the experience (e.g. connecting with specific colleagues and researchers) and 4) have space to be reflexive (p. 3).

Review of the Literature

This study's findings showed that teachers perceived a need for more guidance and support during the transition to implementing a blended learning environment. More specifically, the findings affirmed that teachers needed support defining blended learning

and curating educational resources. The project consisted of an online, self-paced professional development program that will increase teacher awareness of blended learning models, teaching strategies, learning environments, and curated open education resources.

To develop my project, I conducted a review of the literature. A search of scholarly, peer-reviewed articles was completed using Google Scholar and the following databases: ERIC, EBSCO, and Education Research Complete. I used Boolean searches of the following terms to gather materials for the literature review: *online professional development, effective professional development, online learning, self-paced learning, adult learners, transactional distance,* and *content-learner interaction*. In my Google Scholar search, I limited the search to articles written in 2012 or later. Several of the research articles I read led to older research that I found valuable.

The literature review helped be frame the study project and the content for the project. In the first section of the literature review, I conducted research on types of professional development, specifically the benefits of online professional development. In the second section, I address the theoretical framework I used to support a self-paced online professional development course.

Professional Development

Engaging in instructional innovation requires teachers to test their ability to be risk takers (Ponticell, 2003). Teachers need time to establish and develop new practices (Borko & Putnam, 1995) to accept the innovation's change in practice. Expanding teacher knowledge is needed to change teacher practice (Hennessey, Ruthven, &

Brindley, 2005), but changing teacher practices requires changing teacher attitudes and beliefs (Guskey, 2002). Successful implementation of an innovation is dependent on understanding teachers' pedagogical beliefs (Mama & Hennessy, 2013). Teachers need to understand how a new belief translates into the innovative practice before adopting the new belief about teaching and learning (Ertmer & Ottenbreit-Leftwich, 2010). Professional development programs are designed to initiate a change in teachers' attitudes and beliefs (Guskey, 2002; Whitworth & Chiu, 2015).

Professional development comes in a vast range of activities and interactions meant to improve teaching practice (Desimone, 2011). Bayar (2014) noted two main types of professional development: traditional and non-traditional. Traditional professional development included short workshops and conferences. Traditional professional development was often criticized in the literature for being less effective, requiring a shorter time commitment, and invoking little influence on changing practice (Bayar, 2014). However, findings from a comprehensive analysis of professional development research indicated that teacher training, when "focused on implementation of research-based instructional practices, involved active learning experiences, and provided teachers with opportunities to adapt practices," showed a positive effect (Guskey & Yoon, 2009, p. 496). Non-traditional professional development, which some researchers consider to be more effective (Bayar, 2014), includes job-embedded mentoring, coaching, and peer observations requiring greater time on task. Job-embedded professional development is more likely to be directly related to the current work of the teacher (Desimone, 2011). Teachers are more likely to apply new teaching practices

appropriately through participation in job-embedded professional development (Desimone, 2011).

Bayar (2014) defined effective professional development as based on teachers' needs and provided over time. Bayar (2014) identified six components of effective professional development activities: match teacher needs, match school needs, involve teachers in design and plan, create active learning opportunities, provide ongoing engagement and high-quality facilitators. Guskey and Yoon (2009) noted that time must be used wisely, or the ongoing engagement yields no benefits.

Online Professional Development

Online professional development is also a viable choice for teachers seeking alternatives to the traditional and non-traditional professional development offerings. Many teachers find online professional learning more adaptable to their busy schedules, providing them the flexibility to manage their time and interests (Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2009; Masters, Magidin De Kramer, Dwyer, Dash, & Russell, 2010; Vu et al., 2014). Teachers perceive online professional development as more personally relevant, meaningful, and engaging because of the flexibility of time, location, and choice (Brooks & Gibson, 2012). Research has shown no differences in learning outcomes between professional development delivered online or face-to-face (Fishman et al., 2013). The advances in information and communication technologies have provided a gateway to the increase in online professional development programs and teacher demand for online professional development opportunities (Russell, Kleiman, Carey, & Douglas, 2009).

There are several models for online professional development. Online professional development can range from a single-session workshop to an ongoing learning opportunity over several weeks (Masters et al., 2010). Online professional development programs can be entirely online, or a combination of both online and face-to-face. The experience can be synchronous, with simultaneous participation through distance learning video conferencing, or asynchronous, with participant interactions on their own time (Russell et al., 2009). Exchanges among instructors and participants can be facilitated in online professional development programs, or self-paced where the participant works through the resources and activities on their own (Russell et al., 2009).

Russell et al. (2009) examined online professional development and the effect different levels of support had on learning outcomes. The identified and examined four levels of support:

- Highly supported. Participants were required to interact in a discussion forum, complete course assignments together, and received support from both a content expert and an online facilitator.
- Facilitated peer support. Participants interacted in a discussion forum, worked through the course assignments together, and received help from an online facilitator.
- Instructed support only. Participants had no interaction with other participants, completed course assignments at their own pace, but did interact with the content expert and online facilitator.

- No support. Participants worked through the course assignments at their own pace, had no interaction with other participants, and nominal communications with an online coordinator.

The results of the study indicated that the level of support had no effect on the participant learning outcomes. The study included 231 participants randomly assigned to one of the four levels of support. Russell et al. (2009) suggested that a well-designed course with high-quality readings and learning activities will produce positive effects on participant learning outcomes regardless of the level of facilitation or interactions among participants. A self-paced online professional development course is equivalent to the no support level, as the participants work through the course material at their own pace with no interactions with other participants.

The vast array of resources available on the Internet has led teachers to participate in self-directed professional development. Self-direction, one's will to learn, has been noted as an influential factor for predicting teachers' likelihood for adopting an innovation (Mushayikwa & Lubben, 2009). Teachers' internal motivation initiates their will to seek self-directed professional development opportunities online. However, a key factor to success in online learning is learner self-efficacy (Vu et al., 2014). In an online learning environment, the learner requires Internet self-efficacy, a level of confidence to use the Internet (Kuo, Walker, Schroder, & Belland, 2014). Low Internet self-efficacy and the inability to self-manage results in the potential for learners to disengage in online courses (Kuo et al., 2014).

Organization and easy access of online content is vital to the success of learner-content interaction (Kuo et al., 2014). In self-paced online courses the learner works through the content on their own (Vu et al., 2014). For teachers to seek self-paced online professional development the online content design requires careful consideration by instructional designers to engage and internally motivate learners be successful.

Theoretical Framework

A self-paced online professional development course will provide support for teachers transitioning to a blended learning environment. Self-paced online professional development mandates a shift from the traditional professional development opportunities. It is imperative to understand the needs of adult learners to motivate and engage the learners in the content. Instructional design of online content is critical to learner-content interaction and course success. Therefore, adult learning and transactional distance are the theoretical frameworks aligned to my project.

Adult learning theory.

Andragogy, the theory of adult learning, identified the unique differences between children and adult learners by differentiating the assumptions between learners (Merriam & Bierema, 2014). Six andragogic assumptions have implications for design and instruction for adult learners (a) learner's self-concept, (b) experience, (c) readiness to learn, (d) problem-centered orientation, (e) internal motivation, and (f) need to know (Bierema & Merriam, 2014). Careful consideration of the assumptions of adult learning are crucial for developing the instructional design of online content.

Learner's self-concept. Adults see themselves as independent and self-directing, and responsible for their own decisions (Bierema & Merriam, 2014; Knowles, Holton, & Swanson, 2011). Adult learners will challenge learning situations when there are limited opportunities for self-directed learning. Adults engage in life-long learning opportunities effectively in self-directed environments (Keengwe & Georgina, 2012). Self-directed learners want to control over their learning, organizing their time, and plans for completion (Cercone, 2008). For the online learner, providing a curriculum map allows the learner to be self-directed, negotiating their own learning path (Ellaway, 2013).

Experience. The adult learner brings accumulative experiences that have modeled their independent self-concepts (Bierema & Merriam, 2014). A group of adult learners will be more diverse due to their experiences than a group of children. For this reason adult learners need choice to individualize their learning (Knowles et al., 2011).

Readiness to learn. Adults negotiate varying social roles that may create a need for learning (Bierema & Merriam, 2014). A change in the work environment can create a readiness for learning. In order to cope with a new situation, the adult learner becomes ready to learn (Knowles et al., 2011). Transitioning from a traditional classroom environment to a blended learning environments creates a need to learn required changes in instructional strategies.

Problem-centered orientation. Adult learners require new learning to solve an immediate problem to maintain engagement (Bierema & Merriam, 2014). Adults are motivated by learning that is relevant to their own needs (Beverly, Pica, Hope, & Heitman, 2014). Reeves and Pedula (2013), conducted a secondary analysis of teacher

self-reported data from an e-learning project for elementary and secondary teachers from nine states. The results provided evidence of increased teacher learning when online content could be easily transferred to the teacher's classroom. Providing learning tasks that are short, concrete, and immediately applicable help adult learners to see relevancy (Cercone, 2008).

Internal motivation. Internal pressures to learn are the most powerful motivators (Bierema & Merriam, 2014; Knowles et al., 2011). The desire to improve one's personal or work life is a potent internal motivator. Self-efficacy can impact a learner's motivation (Kuo et al., 2014). Learning tasks need to be set at a level of difficulty that does not frustrate the learner (Cercone, 2008). Learning tasks should be scaffolded to provide support, but also challenge the adult learner.

Need to know. Adults need to understand the importance of the learning before embarking on the learning journey (Bierema & Merriam, 2014; Knowles et al., 2011). The adult learner will be more intrinsically motivated if they see the relevance of how the learning will benefit them (Beverly et al., 2014). The goals and objectives of online learning modules should be explicitly stated to aid adult learners in understanding the immediate applications making them aware of the need for new knowledge.

The design of successful online learning environments must take into consideration the unique set of needs, characteristics, and motivations of adult learners (D. M. Smith, 2009). Activities should be relevant building upon experience and encourage self-direction through choice and discovery (D. M. Smith, 2009). It is

important to keep in mind the six andragogic assumptions when designing online experiences for the adult learners.

Theory of transactional distance.

Moore's theory of transactional distance explains the cognitive experience in distance learning, rather than the geographic separation (Goel, Zhang, & Templeton, 2012). Transactional distance examines teaching and learning outside of the traditional classroom (Reyes, 2013). Moore (1972; 2013), identified three dimensions of transactional distance: "dialogue" the course interactions, "structure" the instructional framework, and "learner autonomy" the learner's ability to mediate learning path decisions.

Moore (1989; 1997), identified three classifications of interactions in distance education that promote learning: learner-content interaction, learner-instructor interaction, and learner-learner interaction. Learner-content interaction is a critical element for success in a self-directed online course where learner-instruction interaction and learner-learner interaction are absent. The construction of knowledge occurs and a change in understanding or ability occur through learner interaction with content (Moore, 1997). Zimmerman (2012), examined learner-content interaction and student success in an online course. One hundred and eighty-five students were enrolled in one of three courses using the same format, materials, and instructor with no direct learner-instructor interaction or learner-learner interaction. The results indicated no statistical significance of student grades between the three asynchronous course sections. Grades were noticeably higher for students who had more frequent content interaction. Tuovinen

(2000), stated that learner-content interaction is fundamental to all educational situations. In online learning, learner-content interaction can be one-way through presentations, text, audio files, and video. Two-way learner engagement with the content is provided through interactive multimedia that allows the learner to create, play games, or explore simulations.

An understanding of andragogic assumptions, learner autonomy, and learner-content interactions are imperative for designing a self-paced online professional development course. The andragogic assumptions in adult learning theory provide guidance for course structure and content. A self-paced approach provides learner autonomy, allowing the learner to mediate the course. Understanding the importance of learner-content interactions paves the way to developing content that enriches the learner experience. Adult learning theory and the theory of transactional distance are the theoretical foundations for the development of a self-paced online professional development course on blended learning.

Project Description

The project, a self-paced online professional development program, was developed based on the data analysis needs and research conducted as part of the literature review. This section describes the resources needed to implement a self-paced online professional development program, existing supporters, and potential barriers. An outline of the self-paced online program contents, implementation plan; participant roles and responsibilities are also detailed in this section.

Project Overview

The self-paced online professional development program is designed for classroom teachers transitioning from a traditional learning environment to a blended learning environment. The program is intended to provide teachers information on the attributes of blended learning, changes in pedagogical strategies, and implementation resources. The program is designed for teachers to move through the content at their own pace, on their own time. It is estimated that it will take approximately 16 to 20 hours to complete. The variance in completion time depends on how quickly or slowly a participant moves through the content. Another variable for completion time is how in-depth a participant immerses themselves in the content. By the end of the program the teachers will have a blended learning implementation plan for their classroom.

Program Content

One goal of the proposed online professional development program is for teachers to be able to define what blended learning is and what blended learning is not. A second goal is to be able to identify the purpose for transitioning to a blended learning environment. The third goal is to explore examples of different blended learning models. Goal four is to curate instructional resources for teaching and learning in a blended learning environment.

The course will be divided into four modules. The first module "Why Blended Learning?" will explore the definition and benefits of blended learning. In the second module, "Changes in Teaching and Learning," participants will investigate changes in teaching and learning in the blended classroom. Participants will identify models of

blended learning instructions in the third module, “Blended Learning Environments.” In the last module, “Instructional Resources for Blended Learning,” participants will discover resources for creating learning playlists, open educational resources, and lesson plans. In each module, the participant will be provided links to online resources, blogs, videos, and tools. After exploring all resources, the participant will have ample information to help make sound decisions on their transition to blended learning. An outline for the course content is available in Appendix A.

The timeline for implementing the self-paced online professional development program is based on the immediate need of the district or site administrator as they start the planning process for transitioning to a blended learning environment. The program can be implemented during the early stages of planning the transition to blended learning. The first 3 modules of the program will provide teachers with an understanding of the attributes of blended learning and why the change can be beneficial for their students. The last module can be implemented during the later planning stages to help teacher create a plan for implementing blended learning. The district or site administrator will provide teachers with the website for the self-paced online professional development program, assign modules for the teachers to complete based where they are in the planning stages, and oversee completion. The technology support person will ensure access to the website is available to all teachers and the resource support person will check in with participants to provide additional online content support. In the next 2 sections, potential resources and existing supports address implementation needs and potential barriers address obstacles for successful implementation.

Potential Resources and Existing Supports

The potential resources for the self-paced online professional development program include:

- Internet-accessible digital device, such as a laptop or tablet, that can be utilized by the teachers any time of the day or evening and any day of the week.
- A person who can provide technical support should the teachers' have issues with their digital device.
- A resource person who can provide support with the online content.

Existing supports include:

- Site administrator who will oversee the teachers' participation and completion of the program.
- District technician who can provide technical assistance.

The foundational resources will be the online program. The self-paced online program will provide the background information from the research study and current resources on instructional strategies and the learning environment for understanding the transition to blended learning.

Potential Barriers

Teacher resistance to online learning could be a potential barrier. Teachers with no online experience are more inclined to be resistant (Lloyd, Byrne, & Mccoy, 2012). Time and interest have been indicated as barriers to participation in professional development (Dailey-Hebert, Mandernach, Donnelli-Sallee, & Norris, 2014). Self-paced

online learning allows for autonomous control over scheduling time and learning paths of interest (Dailey-Hebert et al., 2014).

Project Evaluation Plan

The goal of this project was to provide a self-paced online professional learning opportunity that assists teachers in their transition from a traditional teaching environment to a blended learning environment. After completing the self-paced online program, teachers should be able to define blended learning, identify changes in teaching and learning, determine the appropriate learning environments, and curate learning resources. Participants will develop a blended learning implementation plan for their blended learning environment. The development of a blended learning implementation plan will allow the participants to reflect upon and showcase their understanding of the components required to implement a successful blended learning environment.

The self-paced online professional development program will include a goal-based evaluation that will indicate if the program goals have been accomplished. At the completion of the program the teachers will be asked to complete a survey on the effectiveness of the program and its content. The evaluation will be used to determine if any changes need to be made to the program. The survey results would provide data on future professional development needs. Another evaluation for the self-paced online professional development program is the completion of the blended learning implementation plan each teacher develops at the conclusion of the program. A checklist will be used to assess the successful completion of the blended learning implementation plan.

Implications Including Social Change

Local Community

The literature review and data analysis indicated teachers needed foundational information on transitioning to a blended learning environment. While the focus of this project was on two individual case studies, research shows that professional development for teachers is necessary to accept innovative changes and to establish new practices (Whitworth & Chiu, 2015). Teachers are busy and seek alternatives to traditional opportunities for professional learning. Online professional learning is a model of professional development that provides teachers with the flexibility to manage time, location and choice of new learning opportunities (Brooks & Gibson, 2012). The project's self-paced online professional development model can serve as a model for other schools within the district, as well as schools all over the world. This project study will contribute to positive social change by providing teachers with knowledge and resources to transition to a blended learning environment.

Far-Reaching

Researchers have emphasized that all students need to be college and career ready to meet the demands of the world they are entering (Darling-Hammond, Wilhoit, & Pittenger, 2014). Critical and reflective thinking are key skills that foster deeper learning to achieve college and career readiness. A noted benefit of blended learning is the development of critical thinking (Rajkoomar & Raju, 2016). Blended learning requires the use of technology to help facilitate and personalize the learning. The increased use of technology demands critical use of digital literacy skills (M. Hall, Nix, & Baker, 2013) in

the blended classroom and to be college and career ready. Therefore, a blended learning transformation in the learning environment can create students ready to complete globally.

Section 4: Reflections and Conclusions

Introduction

This section contains an overview of the strengths and limitations of the self-paced online professional development model offered as project resulting from my research findings. In the project, I addressed teachers' perceptions on the guidance and support needed to implement blended learning. This section also includes a discussion of alternative venues for addressing the research problem, followed by a reflective analysis of my scholarship, project development, and leadership. Section 4 concludes with an analysis of the project study's potential impact on social change and implications, applications, and directions for future research.

Project Strengths and Limitations

Project Strengths

The primary goal of the self-paced online professional learning model is to address challenges teachers face transitioning from a traditional teaching environment to a blended learning environment. Throughout the study, it was evident the teachers perceived that using a blended learning approach had a positive impact on student learning. Through interviews and observations, teachers revealed they knew more about each student's needs due to an increase in teacher-student interaction. In their opinion, blended learning allowed for increased differentiation and personalization of student learning.

A substantial strength of a self-paced online professional learning model is its emphasis on personalized learning. Brooks and Gibson (2012) concluded that teachers

value new learning and make better connections through a personalized approach. Self-paced online professional learning allows teachers to personalize their learning through flexibility of time and customization of content (Gamrat, Zimmerman, Dudek, & Peck, 2014). Hence, a self-paced online professional learning model is an appropriate project for addressing the barriers of time and interest in the content by allowing teachers autonomous control over time and learning path choice.

Project Limitations and Alternatives

Analysis of data collected from participant interviews and observations guided me in formulating an online self-paced professional learning plan on blended learning. The professional learning opportunity will instruct teachers in how to define blended learning, identify changes in teaching and learning, determine an appropriate blended learning environment, and curate educational resources. However, the project may have some limitations.

One limitation could be the online self-paced format of the professional learning model. Although Fishman et al. (2013) found no significant differences in learning outcomes between online and face to face professional development, some teachers prefer face to face learning over online learning. An alternative to remediate this limitation could be offering the content in a face to face setting. This would require the teachers to meet in a traditional professional development setting after school or during a release day. Another remediation could be offering the online course in a synchronous format with a facilitator overseeing teacher participation and engaging them in reflective

discourse, which research have shown to be an important motivational factor for course complete for some teachers (Dailey-Hebert et al., 2014).

As a novice researcher, my inexperience in research collection and analysis could have unintentionally influenced the results of my data analysis. Throughout my research study, I used recommendations offered by Yin (2014), Merriam (2009), Gagnon (2010), and Miles and Huberman (1994). However, I am cognizant that my lack of experience working with data could have influenced data analysis. Flawed data analysis could have led to a project that did not sufficiently address the research problem.

Scholarship, Project Development and Evaluation, and Leadership and Change

Scholarship

Over the course of my journey developing into a researcher, I have focused on the evolving changes surrounding my topic. The evolution has led me to a greater understanding of the importance of keeping abreast of current research to support my practice. Throughout the process, I have developed my skills as a researcher and scholarly writer. I continue to reflect on my practices as a scholar and practitioner. I have and will continue to use my new knowledge to inform and inspire positive changes in the teaching practices of others.

Project Development and Evaluation

Planning and designing the self-paced online professional learning model required in-depth reflection and analysis of my project study. I confirmed my previous knowledge on the importance of using data and current research to support my project and provide a solution to a district problem. An authentic assessment was designed for the project based

on teacher needs identified through analysis of data. Participants' development of a blended learning implementation plan will provide an evaluation of the project that showcases the participants' readiness to transition to a blended learning environment. The effectiveness of the project will be determined by its impact on addressing the district need to prepare teachers to transition to a blended learning approach to teaching and learning.

Leadership and Change

My doctoral journey has reaffirmed my belief that change is inevitable. Effective leadership is needed to successfully guide change. I subscribe to Knowles, Holton, and Swanson's propositions regarding the behavioral characteristics of creative leadership. Stoll and Temperley (2009) defined creative leadership as:

> An imaginative and thought-through response to opportunities and to challenging issues that inhibit learning at all levels. It is about seeing, thinking and doing things differently in order to improve the life chances of all students. Creative leaders also provide the conditions, environment and opportunities for others to be creative." (p. 66)

Innovation in education requires change, and school leaders influence change (Keamy, 2016). A characteristic of creative leaders is the ability to manage change skillfully (Knowles et al., 2011). Creative leaders are open to new ideas and strive to make a positive difference (Stoll & Temperley, 2009). As a creative educational leader, I aspire to be forward-thinking and facilitate innovative changes.

Reflection on Importance of the Work

The study and project taught me to have a narrow focus and be flexible. I began my journey floundering to make an interest of mine fit into a local problem. It took time to arrive at an understanding of the difference between my personal passion for a problem and a substantiated local problem. Having no personal connection to the study location became an unexpected hurdle in obtaining participants for my study. This resulted in a change in the number of participants in my study, which helped me to keep a narrow focus on identifying the needs of teachers transitioning to a blended learning environment.

A doctoral degree indicates that I have expertise that will allow me to influence decisions. I plan to use the knowledge gained about research, data analysis, adult learners, professional learning, and online learning to contribute to positive sustainable change in education. I hope that the project helps the school site administrators and teachers understand the changes required to implement blended learning.

The study contributes to the literature on K-12 blended learning. In the study, I examined elementary teacher transition from traditional teaching to a blended learning approach. Analysis of the data showed that teachers would like more guidance and support during the transition to blended learning. The project contributes a self-paced online professional development program to assist teacher understanding of the attributes of blended learning, changes in pedagogical strategies, and implementation resources. The project provides a flexible professional development model for any time, any place learning.

Implications, Applications, and Directions for Future Research

The study revealed teachers' concerns associated with implementing a blended learning approach. However, the teachers reported increased student independence and increased teacher-student interaction as perceived strengths of blended learning. Given these perceived strengths, implications for future research would include an exploration of the impact of blended learning on student outcomes. Another implication for future research would be to examine the impact varying models of blended learning have on teaching and learning. This could help teachers make more informed decisions on the model of blended learning that would best fit their educational setting.

The study project has the potential to help all teachers implementing blended learning. Researchers can use the project's self-paced online professional development program to gain information on ways to assist teacher implementation of blended learning. They can also use the project to study flexible professional development models.

Conclusion

In summation, this section was a reflection on the strengths and limitations of the study project, an online self-paced professional learning model that I developed to address a local problem. I designed the project to address the perceived needs of teachers based on their experiences transitioning from a traditional teaching environment to a blended learning environment. In my study, teachers identified a need to have more guidance and support during their transition to blended learning. Professional development is critical for accepting and implementing innovative changes. The self-

paced online professional development framework provides a viable alternative to support a greater understanding of an innovation.

As I reflect on my doctoral journey, I believe that I have developed as a scholar and practitioner. The journey has affirmed my commitment to lifelong learning and the education profession. I am grateful to have engaged in research that contributes to the literature on blended learning. The doctoral program at Walden University provided an opportunity to experience the rigor of scholarly work.

References

Allen, I. E., & Seaman, J. (2003). *Sizing the opportunity: The quality and extent of online education in the United States, 2002 and 2003*. Needham, MA. Retrieved from http://onlinelearningconsortium.org/publications/survey/sizing_the_opportunity2003

Ambient Insight. (2012). *2012 Learning technology research taxonomy, research methodology, product definitions, and licensing model*. Retrieved from the Ambient Insight website: http://www.ambientinsight.com/News/PublishedContent.aspx

Anderson, S. E. (1997). Understanding teacher change: Revisiting the concerns based adoption model. *Curriculum Inquiry*, *27*(3), 331–367. http://doi.org/10.1111/0362-6784.00057

Apex Learning. (2016). *Realizing the potential of blended learning: Beyond personalized to active learning*. Retrieved from the Apex Learning website: http://dierulunbbeq7.cloudfront.net/documents/Potential-of-Blended Learning-Beyond-Personalized-to-Active-021716.pdf

Archambault, L. (2011). The practitioner's perspective on teacher education: Preparing for the K-12 online classroom. *Journal of Technology and Teacher Education*, *19*(1), 73–91. Retrieved from http://www.editlib.org/p/31410

Archambault, L., & Kennedy, K. (2014). Teacher preparation for K-12 online and blended learning. In R. E. Ferdig & K. Kennedy (Eds.), *Handbook of Research on K-12 Online and Blended Learning* (1st ed., pp. 223–281). Pittsburgh, PA: ETC Press.

Bayar, A. (2014). The components of effective professional development activities in

terms of teachers' perspective. *International Online Journal of Educational Sciences*, *6*(2), 319–327. http://doi.org/10.15345/iojes.2014.02.006

Beverly, J., Pica, J., Hope, J., & Heitman, T. (2014). Designing a consistent, relevant, and flexible online learning experience for adult learners. In T. Bastiaens (Ed.), *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (Vol. 2014, pp. 2012–2015). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). Retrieved from https://www.learntechlib.org/p/148741/

Bhati, N., Mercer, S., Rankin, K., & Thomas, B. (2009). Barriers and facilitators to the adoption of tools for online pedagogy. *International Journal of Pedagogies and Learning*, *5*(3), 5–19. http://doi.org/10.5172/ijpl.5.3.5

Bierema, L. L., & Merriam, S. B. (2014). *Adult learning: Linking theory and practice*. San Francisco, CA: Jossey-Bass.

Blackboard. (2015). *Trends in digital learning: Empowering innovative classroom models for learning*. *Project Tomorrow*. Retrieved from Project Tomorrow website: http://www.tomorrow.org/speakup/2015_ClassroomModels.html

Bridges, B. (2013). *California elearning census: Between the tipping point and critical mass*. Modesto, CA.

Bridges, B. (2014). *California elearning census: Increasing depth and breadth*. Modesto, CA.

Brooks, C., & Gibson, S. (2012). Professional learning in a digital age. *Canadian Journal of Learning and Technology*, *38*(2), 1-16. Retrieved from

http://files.eric.ed.gov/fulltext/EJ981798.pdf

California County Superintendents Educational Services Association. (2013). *California elearning framework*. Sacramento, CA.

Cao, G. (2007). The pattern-matching role of systems thinking in improving research trustworthiness. *Systemic Practice and Action Research*, *20*(6), 441–453. http://doi.org/10.1007/s11213-007-9069-1

Cercone, K. (2008). Characteristics of adult learners with implications for online learning design. *AACE Journal*, *16*(2), 137–159. Retrieved from https://wit.edu/sites/default/files/article_24286 (1).pdf

Chan, P., Wilkinson, J., Graham, C. R., Borup, J., & Skeen, J. (2011). Blended learning: Transforming teacher roles in 21st century education. In *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2011* (pp. 1089–1096). Chesapeake, VA: AACE. Retrieved from https://www.learntechlib.org/noaccess/38860/

Christensen, C. M., Horn, M. B., & Staker, H. (2013). *Is K-12 blended learning disruptive? An introduction of the theory of hybrids*. Retrieved from http://www.christenseninstitute.org

Clark, T. (2001). *Virtual schools: Trends and issues. A study of virtual schools in the United States*. Retrieved from WestEd website: http://www.wested.org/online_pubs/virtualschools.pdf

Clark, T. (2003). Virtual and distance education in American schools. In M. G. Moore & W. G. Anderson (Eds.), *Handbook of Distance Education* (1st ed., pp. 673–699).

Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks: Sage.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks: Sage.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston: Pearson.

Dailey-Hebert, A., Mandernach, B. J., Donnelli-Sallee, E., & Norris, V. R. (2014). Expectations, motivations, and barriers to professional development: Perspectives from adjunct instructors teaching online. *The Journal of Faculty Development*, *28*(1), 67–82. Retrieved from https://search-proquest-com.ezp.waldenulibrary.org/docview/1667201293?accountid=14872

Darling-Hammond, L., Wilhoit, G., & Pittenger, L. (2014). Accountability for college and career readiness: Developing a new paradigm. *Education Policy Analysis Archives*, *22*(86), 1–23. Retrieved from http://epaa.asu.edu/ojs/article/view/1724/1334

Dawley, L., Rice, K., & Hinck, G. (2010). *Going virtual! 2010: The status of professional development and unique needs of K-12 online teachers*. Retrieved from Boise State University website: http://edtech.boisestate.edu/goingvirtual/goingvirtual3.pdf

Dede, C., Ketelhut, D. J., Whitehouse, P., Breit, L., & McCloskey, E. M. (2009). A research agenda for online teacher professional development. *Journal of Teacher*

Education, *60*(1), 8–19. http://doi.org/10.1177/0022487108327554

Desimone, L. (2011). A primer on effective professional development. *Kappan*, *92*(6), 68–71. http://doi.org/10.1177/003172171109200616

DiPietro, M. (2010). Virtual school pedagogy: The instructional practices of K-12 virtual school teachers. *Journal of Educational Computing Research*, *42*(3), 327–354. http://doi.org/10.2190/EC.42.3.e

Donovan, L., Green, T. D., & Mason, C. (2014). Examining the 21st century classroom: Developing an Innovation Configuration map. *Journal of Educational Computing Research*, *50*(2), 161–178. http://doi.org/10.2190/EC.50.2.a

Drysdale, J. S., Graham, C. R., Spring, K. J., & Halverson, L. R. (2013). An analysis of research trends in dissertations and theses studying blended learning. *The Internet and Higher Education*, *17*, 90–100. http://doi.org/10.1016/j.iheduc.2012.11.003

Education Technology Task Force. (2012). *Education technology task force recommendation*. Retrieved from California Department of Education website: https://www.cde.ca.gov/eo/in/documents/efftmemo.pdf

Ellaway, R. (2013). Discipline-based designs for learning: the example of professional and vocational education. In H. Beetham & R. Sharpe (Eds.), *Rethinking Pedagogy for a Digital Age* (2nd ed., pp. 153–165). London: Routledge.

Englert, C. S., Zhao, Y., Dunsmore, K., Collings, N. Y., & Wolbers, K. (2007). Scaffolding the writing of students with disabilities through procedural facilitation: Using an internet-based technology to improve performance. *Learning Disability Quarterly*, *30*, 9–29. http://doi.org/10.2307/30035513

Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, *42*(3), 255–284. Retrieved from http://files.eric.ed.gov/fulltext/EJ882506.pdf

Fishman, B., Konstantopoulos, S., Kubitskey, B. W., Vath, R., Park, G., Johnson, H., & Edelson, D. C. (2013). Comparing the impact of online and face-to-face professional development in the context of curriculum implementation. *Journal of Teacher Education*, *64*(5), 426–438. http://doi.org/10.1177/0022487113494413

Flood, A. (2010). Understanding phenomenology. *Nurse Researcher*, *17*(2), 7–15. Retrieved from Walden University Library website: http://ezp.waldenulibrary.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=48351433&site=ehost-live&scope=site

Fullan, M. (1985). Change processes and strategies at the local level. *The Elementary School Journal*, *85*(3), 390. http://doi.org/10.1086/461411

Fullan, M. (1992). Visions that blind. *Educational Leadership*, *February*, 19–21. Retrieved from Association of Supervision and Curriculum Development website: http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_199202_fullan.pdf

Gagnon, Y.-C. (2010). *The case study as research method*. Quebec, Canada: Presses de l'Universite du Quebec.

Gamrat, C., Zimmerman, H. T., Dudek, J., & Peck, K. (2014). Personalized workplace learning: An exploratory study on digital badging within a teacher professional development program. *British Journal of Educational Technology*, *45*(6), 1136–

1149. http://doi.org/10.1111/bjet.12200

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, *7*(2), 95–105. http://doi.org/10.1016/j.iheduc.2004.02.001

Garrison, D. R., & Vaughan, N. D. (2012). Institutional change and leadership associated with blended learning innovation: Two case studies. *The Internet and Higher Education*, 1–5. http://doi.org/10.1016/j.iheduc.2012.09.001

Gershner, V. T., & Snider, S. L. (1999). Beginning the change process: Teacher stages of concern and levels of internet use in curriculum design and delivery in one middle and high school setting. In J. Price (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference 1999* (Vol. 1999, pp. 1692–1698). Chesapeake, VA. Retrieved from http://www.editlib.org/p/8176

Glesne, C. (2011). *Becoming qualitative researchers* (4th ed.). Boston: Pearson.

Goel, L., Zhang, P., & Templeton, M. (2012). Transactional distance revisited: Bridging face and empirical validity. *Computers in Human Behavior*, *28*(4), 1122–1129. http://doi.org/10.1016/j.chb.2012.01.020

Graham, C. R. (2005). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs* (pp. 3–21). San Francisco, CA: Pfeiffer Publishing.

Graham, C. R. (2009). Blended learning models. *Encyclopedia of Information Science and Technology*, 375–382, 375-381. Retrieved from

http://mfile.narotama.ac.id/files/Information System/Encyclopedia of Information Science and Technology (2nd Edition)/Blended Learning Models.pdf

Graham, C. R. (2013). Emerging practice and research in blended learning. In M. G. Moore (Ed.), *Handbook of Distance Education* (3rd ed., pp. 333–350). New York, NY: Routledge.

Guskey, T. R. (1985). Staff development and teacher change. *Educational Leader*, *42*(7), 5–12. Retrieved from Association of Supervision and Curriculum Development website: http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_198504_guskey.pdf

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching*, *8*(3), 381–391. http://doi.org/10.1080/135406002100000512

Guskey, T. R., & Peterson, K. D. (1995). The road to classroom change. *Educational Leadership*, *53*(4), 10–14. Retrieved from Association of Supervision and Curriculum Development website: http://www.ascd.org/publications/educational-leadership/dec95/vol53/num04/The-Road-to-Classroom-Change.aspx

Guskey, T. R., & Yoon, K. S. (2009). What works in professional development? *Phi Delta Kappan*, *19*(7), 495–500. Retrieved from Walden University Library website: http://ezp.waldenulibrary.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edswss&AN=000263749900009&site=eds-live&scope=site

Hall, G. E. (1975). The effects of change on teachers and professors: Theory, research, and implications for decision-makers. In *National Invitational Conference on Research on Teacher Effects: An examination of Policy-Makers and Researchers* (p. 38). Austin, TX. Retrieved from http://files.eric.ed.gov/fulltext/ED128338.pdf

Hall, G. E., George, A., & Rutherford, W. L. (1977). *Measuring stages of concern about the innovatio: A manual for use of the SoC questionaire*. Austin, TX. Retrieved from http://files.eric.ed.gov/fulltext/ED147342.pdf

Hall, G. E., Wallace, R. C., & Dossett, W. F. (1973). *A developmental conceptualization of the adoption process within educational institutions*. Austin, TX. Retrieved from http://files.eric.ed.gov/fulltext/ED095126.pdf

Hall, M., Nix, I., & Baker, K. (2013). Student experiences and perceptions of digital literacy skills development: Engaging learners by design? *The Electronic Journal of E-Learning*, *11*(3), 207–225. Retrieved from http://www.ejel.org/volume11/issue3

Halverson, L. R., Graham, C. R., Spring, K. J., & Drysdale, J. S. (2012). An analysis of high impact scholarship and publication trends in blended learning. *Distance Education*, *33*(3), 381–413. http://doi.org/10.1080/01587919.2012.723166

Halverson, L. R., Graham, C. R., Spring, K. J., Drysdale, J. S., & Henrie, C. R. (2014). A thematic analysis of the most highly cited scholarship in the first decade of blended learning research. *The Internet and Higher Education*, *20*, 20–34. http://doi.org/10.1016/j.iheduc.2013.09.004

Hamilton, L., & Corbett-Whittier, C. (2013). *Using case study in education research*. Thousand Oaks: Sage.

Hancock, D. R., & Algozzine, B. (2006). *Doing case study research*. New York, NY: Teachers College Press.

Hatch, J. A. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.

Hernandez, A. (2013). Which way for K12 blended learning? Retrieved May 19, 2017, from https://www.edsurge.com/news/2013-04-10-which-way-for-k12-blended-learning

Hord, S. M., Rutherford, W. L., Huling-Austin, L., & Hall, G. E. (1987). *Taking charge of change*. Alexandria, VA: Association for Supervision & Curriculum Development.

Jackson, B. (2014). What blended learning means for teachers. Retrieved May 9, 2017, from https://tntp.org/blog/post/what-blended-learning-really-means-for-teachers

Keamy, R. (2016). Creative leadership? "It's just the norm." *School Leadership and Management*, *36*(2), 151–168. http://doi.org/10.1080/13632434.2016.1196173

Keengwe, J., & Georgina, D. (2012). The digital course training workshop for online learning and teaching. *Education and Information Technologies*, *17*(4), 365–379. http://doi.org/10.1007/s10639-011-9164-x

Kennedy, K., & Archambault, L. (2011). The current state of field experiences in K-12 online learning programs in the U.S. In *Society for Information Technology & Teacher Education International Conference* (Vol. 2011, pp. 3454–3461). Chesapeake, VA: AACE. Retrieved from http://www.editlib.org/p/36855

Kim, S., & Paik, S. (2016). An analysis of science teachers' stages of concern and levels of use on descriptive assessment. *Journal of the Korean Chemical Society*, *60*(5), 353–361. http://doi.org/10.5012/jkcs.2016.60.5.353

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2011). *The Adult Learner* (7th ed.). Burlington, MA: Elsevier Inc.

Krueger, N. (2014). 3 critical mindsets for blending learning. Retrieved April 20, 2017, from https://www.iste.org/explore/articleDetail?articleid=151&category=ISTE-Connects-blog&article=3-critical-mindsets-for-blended-learning

Kuo, Y. C., Walker, A. E., Schroder, K. E. E., & Belland, B. R. (2014). Interaction, Internet self-efficacy, and self-regulated learning as predictors of student satisfaction in online education courses. *Internet and Higher Education*, *20*(2014), 35–50. http://doi.org/10.1016/j.iheduc.2013.10.001

Lloyd, S. a, Byrne, M. M., & Mccoy, T. S. (2012). Faculty-perceived barriers of online education. *Journal of Online Learning and Teaching*, *8*(1), 1–12. Retrieved from http://jolt.merlot.org/vol8no1/lloyd_0312.htm

Lodico, M. G., Spaulding, D. T., & Voegtle, K. H. (2010). *Methods in educational research*. San Francisco: Jossey-Bass.

Mama, M., & Hennessy, S. (2013). Developing a typology of teacher beliefs and practices concerning classroom use of ICT. *Computers and Education*, *68*, 380–387. http://doi.org/10.1016/j.compedu.2013.05.022

Marsh, D. (2012). *Blended learning: Creating learning opportunities for language learners*. New York, NY: Cambridge University Press. Retrieved from www.cambridge.org/download_file/851168/0/

Masters, J., Magidin De Kramer, R., Dwyer, L., Dash, S., & Russell, M. (2010). The effects of online teacher professional development on fourth grade English Language Arts teachers' knowledge and instructional practices. *Journal of Educational Computing Research*, *43*(3), 355–375. Retrieved from

https://www.learntechlib.org/p/35346/

Matar, N. (2015). Evaluating e-learning system use by CBAM-Stages of Concern methodology in Jordanian Universities. *World of Computer Science and Information Technology Journal*, *5*(5), 75–81. Retrieved from http://www.wcsit.org/media/pub/2015/vol.5.no.5/Evaluating E-Learning System Use by CBAM-Stages of Concern Methodology in Jordanian Universities .pdf

Maxwell, C., & White, J. (2017). *Blended (R)evolution: How 5 teachers are modifying the station rotation to fit students' needs*. San Mateo, CA. Retrieved from https://www.christenseninstitute.org/wp-content/uploads/2017/07/Blended-Revolution.pdf

McGill, L. (2014). Open educational resources (OERs). Retrieved May 16, 2017, from https://www.jisc.ac.uk/guides/open-educational-resources

McMillen, K. (2013). Adventures in "playlisting." Retrieved May 18, 2017, from http://www.blendmylearning.com/2013/03/29/adventures-in-playlisting/

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning*. Retrieved from https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf

Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis* (Kindle ver). San Francisco: Jossey-Bass.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco: Jossey-Bass.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded*

sourcebook (2nd ed.). Thousand Oaks: Sage. http://doi.org/10.1016/0149-7189(96)88232-2

Mindflash. (n.d.). What is blended learning? Retrieved April 8, 2017, from https://www.mindflash.com/elearning/what-is-blended-learning

Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, *108*(6), 1017–1054. Retrieved from http://www.tcrecord.org/content.asp?contentid=12516

Moore, M. G. (1972). Learner autonomy: The second dimension of independent learning. *Convergence*, *5*(2), 76–88. Retrieved from https://eric.ed.gov/?id=EJ064957

Moore, M. G. (1989). Editorial: Three types of interaction. *American Journal of Distance Education*, *3*(2), 1–7. http://doi.org/10.1080/08923648909526659

Moore, M. G. (1997). Theory of transactional distance. In D. Keegan (Ed.), *Theoretical Principles of Distance Education* (pp. 22–38). London: Routledge. http://doi.org/10.2307/3121685

Moore, M. G. (2013). The Theory of Transactional Distance. In M. G. Moore (Ed.), *Handbook of Distance Education* (3rd ed., pp. 66–85). New York, NY: Routledge.

Murphy, M., Redding, S., & Twyman, J. (2013). *Handbook on innovations in learning*. (M. Murphy, S. Redding, & J. Twyman, Eds.). Philadelphia, PA. Retrieved from http://www.centeril.org/handbook/

Murphy, R., Snow, E., Mislevy, J., Gallagher, L., Krumm, A., & Wei, X. (2014). *Blended learning report*. Retrieved from http://www.edweek.org/media/msdf-blended-learning-report-may-2014.pdf

Mushayikwa, E., & Lubben, F. (2009). Self-directed professional development - Hope for teachers working in deprived environments? *Teaching and Teacher Education*, *25*(3), 375–382. http://doi.org/10.1016/j.tate.2008.12.003

National Governors Association Center, & Officers School, C. of C. S. (2010). Common core state standards initiative. Retrieved from Common Core State Standards Initiative website: http://www.corestandards.org/wp-content/uploads/ELA_Standards.pdf

Niemiec, M., & Otte, G. (2010). An administrator's guide to the whys and hows of blended learning. *Journal of Asynchronous Learning Network*, *14*(1), 91–102. Retrieved from http://files.eric.ed.gov/fulltext/EJ909846.pdf

Norton, P., & Hathaway, D. (2013). Preparing teachers, building capacity: A response to K-12 online initiatives. In R. McBride & M. Searson (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2013* (pp. 886–894). Retrieved from http://www.editlib.org/d/48223/

O'Dwyer, L. M., Carey, R., & Kleiman, G. (2007). A study of the effectiveness of the Louisiana algebra I online course. *Journal of Research on Technology in Education*, *39*(3), 289–306. http://doi.org/10.1080/15391523.2007.10782484

Osguthorpe, R. T., & Graham, C. R. (2003). Blended learning environments: Definitions and directions. *The Quarterly Review of Distance Education*, *4*(3), 227–233. Retrieved from Walden University Library website: http://ezp.waldenulibrary.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ678078&site=eds-live&scope=site

Overbaugh, R., & Lu, R. (2009). The impact of a federally funded grant on a professional development program: Teachers' stages of concern toward technology integration. *Journal of Computing in Teacher Education*, *25*(2). Retrieved from http://files.eric.ed.gov/fulltext/EJ834096.pdf

Pennington, M. C. (1995). The teacher change cycle. *TESOL Quarterly*, *29*(4), 705–718. Retrieved from http://tesol.aua.am/tqd_2000/TQD_2000/Tq_d2000/Vol_29_4.pdf#page=80

Picciano, A. G., & Seaman, J. (2007). *K-12 online learning: A survey of U.S. school district administrators*. New York, NY. Retrieved from Online Learning Consortium website: https://www.onlinelearningsurvey.com/reports/k-12-online-learning.pdf

Picciano, A. G., & Seaman, J. (2009). *K-12 online learning: A 2008 follow-up of the survey of U.S. school district administrators*. New York. Retrieved from Online Learningn Consortium website: http://sloanconsortium.org/publications/survey/k-12online2008

Picciano, A. G., Seaman, J., Shea, P., & Swan, K. (2012). Examining the extent and nature of online learning in American K-12 Education: The research initiatives of the Alfred P. Sloan Foundation. *The Internet and Higher Education*, *15*(2), 127–135. http://doi.org/10.1016/j.iheduc.2011.07.004

Ponticell, J. A. (2003). Enhancers and inhibitors of teacher risk taking: A case study. *Peabody Journal of Education*, *78*(3), 5–24. http://doi.org/10.1207/S15327930PJE7803_02

Posner, G. J., Strike, K. A., Hewson, P. W., & Gertzog, W. A. (1982). Accommodation

of a scientific conception: Toward a theory of conceptual change. *Science Education*, *66*(2), 211–227. http://doi.org/10.1002/sce.3730660207

Project Tomorrow. (2011). *Learning in the 21st century: 2011 trends update*. Irvine, CA. Retrieved from Project Tomorrow website: http://www.tomorrow.org/speakup/learning21Report_2011_Update.html

Project Tomorrow. (2012). *Mapping a personalized learning journey: K-12 students and parents connect the dots with digital learning*. Retrieved from Project Tomorrow website: http://www.tomorrow.org/speakup/pdfs/SU11_PersonalizedLearning_Students.pdf

Project Tomorrow. (2013). *From chalkboards to tablets: The emergence of the K-12 digital learner*. Irvine, CA. Retrieved from Project Tomorrow website: http://www.tomorrow.org/speakup/pdfs/SU12-Students.pdf

Project Tomorrow. (2014). *Digital learning 24/7: Understanding technology - enhanced learning in the lives of today's students*. *SpeakUp*. Retrieved from Project Tomorrow website: http://www.tomorrow.org/speakup/pdfs/SU14StudentReport.pdf

Quattrocchi, C. (2014, January). What makes Milpitas a model for innovation. *EdSurge Newsletter*, pp. 1–8. Retrieved from https://www.edsurge.com/n/2014-01-07-what-makes-milpitas-a-model-for-innovation

Queen, B., Lewis, L., & Coopersmith, J. (2012). *Distance education courses for public elementary and secondary school students: 2009–10 (NCES 2012-008)*. Washington, D. C. Retrieved from National Center for Education Statistics website: http://nces.ed.gov/pubs2012/2012008.pdf

Rajkoomar, M., & Raju, J. (2016). A framework using blended learning for innovative teaching and learning. *Research & Reviews: Journal of Educational Studies*, *2*(3), 1–9.

Reeves, T. D., & Pedulla, J. J. (2013). Bolstering the impact of online professional development for teachers. *The Journal of Educational Research & Policy Studies*, *1*(2), 61. Retrieved from http://files.eric.ed.gov/fulltext/ED545314.pdf

Remenyi, D. (2013). *Case study research* (2nd ed.). United Kingdom: Academic Conferences and Publishing International Limited.

Reyes, J. A. 1. (2013). Transactional distance theory: Is it here to stay? *Distance Learning*, *10*(3), 43–50. Retrieved from Walden University Library: http://ezp.waldenulibrary.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgov&AN=edsgcl.369914705&site=eds-live&scope=site

Rice, J. K. (2003). *Teacher quality: Understanding effectiveness of teacher attributes*. *Journal of the ICRU* (Vol. 9). Retrieved from http://www.epi.org/files/page/-/old/books/teacher_quality_exec_summary.pdf

Rockman, S., Sloan, K., Akey, T., Farr, B., Pereira-Leon, M., Shapiro, J., & Clark, L. (2007). *Ed pace final report*. Retrieved from West Virginia Department of Education website: https://wvde.state.wv.us/evaluation/pace_findings.htm

Rouse, T., & Bridges, B. (2012). *California elearning census: Trending past the tipping point*. Modesto, CA.

Russell, M., Kleiman, G., Carey, R., & Douglas, J. (2009). Comparing self-paced and cohort-based online courses for teachers. *Journal of Research on Technology in*

Education, *41*(4), 443–466. http://doi.org/10.1080/15391523.2009.10782538

Sandelowski, M. (2000). Focus on research methods: Whatever happened to qualitative description? *Research in Nursing & Health*, *23*, 334–340. Retrieved from http://www.wou.edu/~mcgladm/Quantitative Methods/optional stuff/qualitative description.pdf

Saunders, R. (2012). Assessment of professional development for teachers in the vocational education and training sector: An examination of the concerns based adoption model. *Austrailian Journal of Education*, *56*(2). Retrieved from EBSCO

Seidman, I. (2013). *Interviewing as qualitative research*. New York, NY: Teachers College Press.

Setzer, J. C., & Lewis, L. (2005). *Distance education courses for public elementary and secondary school students: 2002–03 (NCES 2005-010)*. Washington, D.C. Retrieved from National Center for Education Statistics website: http://nces.ed.gov/pubs2005/2005010.pdf

Smith, C., & Gillespie, M. (2007). Research on professional development and teacher change: Implications for adult basic education. *Review of Adult Learning and Literacy*, *7*(7), 205–244. Retrieved from http://www.ncsall.net/index.html@id=493.html

Smith, D. M. (2009). Online Activities for the Adult Learner. In I. Gibson, R. Weber, K. McFerrin, R. Carlsen, & D. Willis (Eds.), *Prodeedings of Society for Information Technology & Teacher Education International Conference* (Vol. 2009, pp. 527–530). Chesapeake, VA: Association for the Advancement of Computing in

Education. Retrieved from https://www.learntechlib.org/p/30649/

Soifer, D. (2015). *Transforming education through digital technology*. *Lexington Institute*. Arlington, VA. Retrieved from http://www.lexingtoninstitute.org/wp-content/uploads/2015/02/Transforming-Education-Through-Digital-and-Blended-Learning.pdf

Staker, H. (2011). *The rise of K–12 blended learning: Profiles of emerging models*. *Learning*. San Mateo, CA. Retrieved from https://www.christenseninstitute.org/wp-content/uploads/2013/04/The-rise-of-K-12-blended-learning.emerging-models.pdf

Staker, H., & Horn, M. B. (2012). *Classifying K-12 blended learning*. San Mateo, CA. Retrieved from https://www.christenseninstitute.org/wp-content/uploads/2013/04/Classifying-K-12-blended-learning.pdf

Stoll, L., & Temperley, J. (2009). Creative leadership: A challenge of our times. *School Leadership and Management*, *29*(1), 65–78. http://doi.org/10.1080/13632430802646404

Sun, K., Lin, Y., & Yu, C. (2008). A study on learning effect among different learning styles in a web-based lab of science for elementary school students. *Computers & Education*, *50*, 1411–1422. http://doi.org/10.1016/j.compedu.2007.01.003

Terhart, E. (2013). Teacher resistance against school reform: Reflecting an inconvenient truth. *School Leadership and Management*, *33*(5), 486–500. http://doi.org/10.1080/13632434.2013.793494

TNTP. (2014). *Reimaging teaching in a blended classroom*. New York, NY. Retrieved from

https://tntp.org/assets/documents/TNTP_Blended_Learning_WorkingPaper_2014.pdf

Tuovinen, J. E. (2000). Multimedia distance education interactions. *Educational Media International*, *37*(1), 16–24. http://doi.org/10.1080/095239800361473

U.S. Department of Education, O. of E. T. (2010). *Transforming American education: Learning powered by technology*. *Educational Technology*. Retrieved from U.S. Department of Education website: http://www.ed.gov/technology/netp-2010

Vaughan, W. (2002). Professional development and the adoption and implementation of new innovation: Do teacher concerns matter? *International Electronic Journal For Leadership in Learning*, *6*(June 1994). Retrieved from http://iejll.journalhosting.ucalgary.ca/iejll/index.php/ijll/article/viewFile/435/97

Vu, P., Cao, V., Vu, L., & Cepero, J. (2014). Factors driving learner success in online professional development. *The International Review of Research in Open and Distance Learning*, *15*(3), 121–139. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1714/2907?

Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2010). *Keeping pace with K-12 online learning 2010*. Retrieved from Evergreen Education Group website: https://www.evergreenedgroup.com/keeping-pace-reports/

Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2012). *Keeping pace with K-12 online & blended learning: An annual review of policy and practice*. Retrieved from Evergreen Education Group website: https://www.evergreenedgroup.com/keeping-pace-reports/

Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2013). *Keeping pace with K-12 online & blended learnng: An annual review of policy and practice*. Retrieved from Evergreen Education Group website: https://www.evergreenedgroup.com/keeping-pace-reports/

Whitworth, B. A., & Chiu, J. L. (2015). Professional development and teacher change: The missing leadership link. *Journal of Science Teacher Education*, *26*(2), 121–137. http://doi.org/10.1007/s10972-014-9411-2

Wong, W. (2014, April). How technology enables blended learning. *EdTech: Focus On K-12*, 1–10. Retrieved from EdTech Magazine website: http://www.edtechmagazine.com/k12/article/2014/04/how-technology-enables-blended-learning

Yang, Y., & Cornelious, L. F. (2005). Preparing instructors for quality online instruction. *Online Journal of Distance Learning Administration*, *8*(1), 1–17. Retrieved from http://www.westga.edu/~distance/ojdla/spring81/yang81.pdf

Yin, R. K. (2011). *Qualitative research from start to finish* (Kindle ver). New York: The Guilford Press.

Yin, R. K. (2014). *Case study research: Design and methods* (Kindle ver). Thousand Oaks: Sage.

Zandberg, I., Lewis, L., & Greene, B. (2008). *Technology-based distance education courses for public elementary and secondary schools: 2002-03 and 2004-05 Technology-Based Distance Education (NCES 2005-010)*. Retrieved from National Center for Education Statistics website: http://nces.ed.gov/pubs2008/2008008.pdf

Zimmerman, T. D. (2012). Exploring learner to content interaction as a success factor in online courses. *International Review of Research in Open and Distance Learning*, *13*(4), 152–165. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1302/2294

Appendix A: Doctoral Project

(Draft of Project Content)

Blended Learning

Goal:

- Define what blended learning is and what blended learning is not.
- Identify the purpose for transitioning to a blended learning environment
- Explore examples of different blended learning models.
- Curate instructional resources available for teaching and learning in a blended learning environment.

Audience:

- Classroom teachers transitioning from a traditional learning environment to a blended learning environment.

Timeline:

- 16 to 20 hours to complete all modules.

Implementation:

- Modules 1-3 can be implemented during the early stages of planning the transition to blended learning
- Module 4 can be implemented during the later planning stages to help teachers create a plan for implementing blended learning

Module 1: Why Blended Learning?

Objectives:

- Define blended learning
- Benefits of blended learning
- Reflect on your reasons for implementing blended learning

Introduction

1. Video: Why Blended Learning in K-12 Schools by CET Education. Provides overview on blended learning in K-12 Schools
2. Blog Post: What Blended Learning Is - And Isn't by Clifford Maxwell (March 4, 2016)

What is Blended Learning

1. The Christensen Institute defines blended learning as:
    a. A formal education program in which a student learns
        i. At least in part through online learning, with some element of student control over time, place, path, and/or pace;
        ii. At least in part in a supervised brick-and-mortar location away from home;
        iii. And the modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience.

2. Video: The Definition of Blended Learning by Silicon School Fund and Clayton Christensen Institute. Provides overview describing blended learning.
3. Video: What is Blended Learning by The Learning Accelerator. Describes what blended learning looks like.
4. The Sloan Consortium (Picciano, Seaman, Shea, & Swan, 2012) defines blended learning as:
    a. Courses that integrate online with traditional face-to-face class activities in a planned pedagogically valuable manner; and
    b. Where a portion (institutionally defined) of face-to-face time is replaced by online activity
5. The New Teacher Project states blended learning is the intentional integration of online and in-person education to expand learning opportunities for students (Jackson, 2014).

Benefits of Blended Learning

1. When blended learning is truly integrated, the in-person teaching and online learning build off of each other, giving students more access to rigorous content, multiple ways to practice skills, and a variety of opportunities to demonstrate their learning, The New Teacher Project (Jackson, 2014).
2. Video: Benefits of Blending. By The Learning Accelerator. Teacher talks about the benefits of blended learning.

3. According to the Blended Learning Report (R. Murphy et al., 2014) the blended learning benefits to teaching and learning were:
    a. Students' increased procedural skills development more than higher order thinking
    b. The self-directed learning promoted goal-setting
    c. Students' readiness for self-directed learning varied according to academic preparation

Reflection

- What do you see as the benefit for transitioning to blended learning?

Module 2: Changes in Teaching and Learning

Objectives:

- Describe how blended learning changes teaching and learning
- Identify instructional strategies used to support blended learning
- Reflect on changes to your current teaching practices

Teaching and Learning

1. The shift to blended learning means we need truly effective teachers now more than ever to ensure rigorous content is being taught and that the technology is being used to extend students' learning opportunities (TNTP, 2014).
2. Blended learning redefines teaching roles (Mindflash, n.d.).

a. Teacher as facilitator empowering students with skills and knowledge required to make the most of the online material and independent study time, guiding students toward the most meaningful experience possible

b. As a facilitator teacher focuses on:

i. Development of online and offline course content

ii. Facilitation of communication with and among students

iii. Guiding the learning experience of individual students, and customizing material wherever possible to strengthen the learning experience

iv. Assessment and grading

3. Video: Rethinking the role of the teacher and the key shifts a teacher experiences

4. Classroom Shift (Intel Teach Elements Course: Designing Blended Learning: Module 1.A2)

a. Student-centered instruction where students are active and interactive learners both online and in the classroom

b. Increased opportunities for interaction between student and teacher, student and student, student and content, and student and outside resources

c. Customized individualized learning for students through online tools and resources

   d. Variety of offline and online formative and summative assessments
   e. Selecting the most effective teaching strategy that might take place in class or online

5. Classroom Shift (Krueger, 2014)
   a. Teacher shift from lecturer to facilitator
   b. Teacher shift from explainer of all concepts to intervener
   c. Teacher shift from teaching content to teaching content, skills, and mindsets
   d. Teacher shift from generalist to specialist
   e. Student shift from fixed student groupings to dynamic groupings
6. iNACOL Blended Learning Teacher Competency Framework
   a. Research identifies 12 key competencies organized into 4 domains: mindsets, qualities, adaptive skills, and technical skills.

Instructional Strategies

1. Videos: BetterLesson - select an instructional strategy to view a video
2. Blended Learning Daily – online news aggregator on blended learning

Reflection

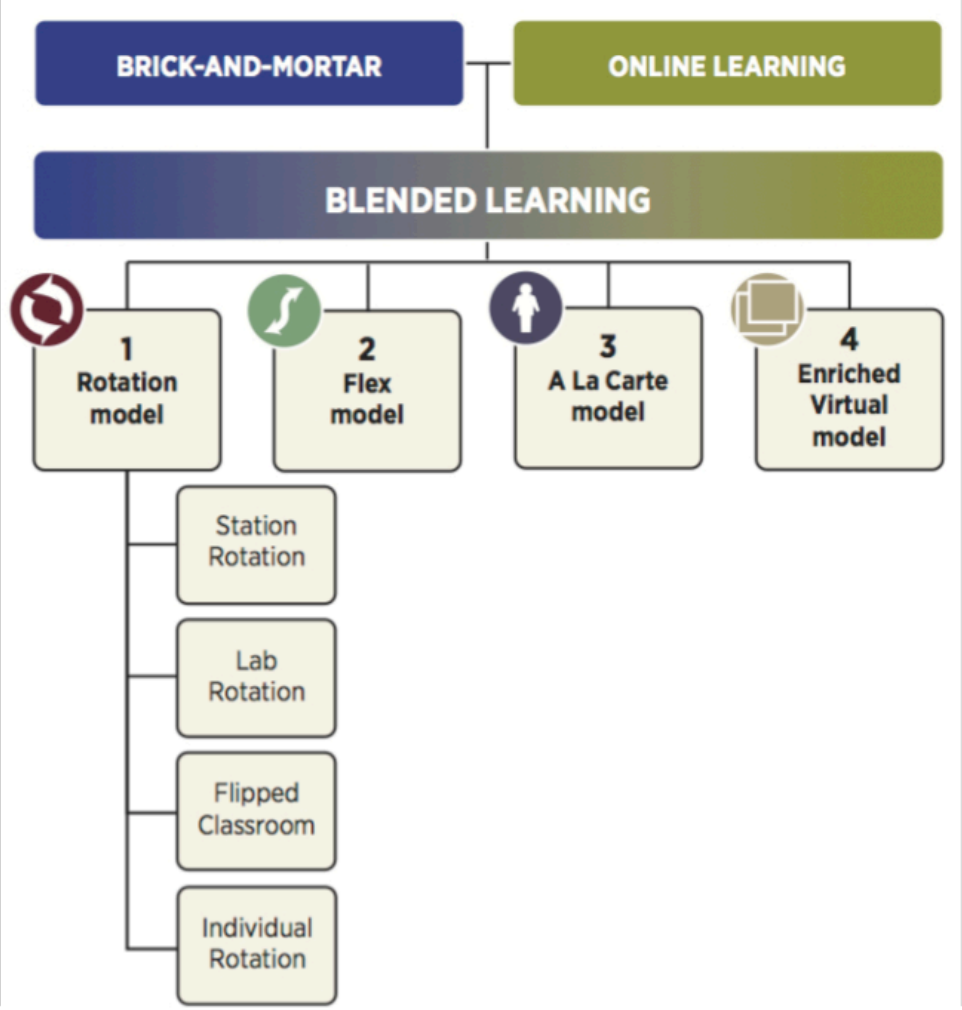
- Specifically, what do you see as changes to your current teaching practices as you prepare to transition to a blended learning environment for teaching and learning?
- What aspects of your teaching and learning will remain the same?

Module 3: Blended Learning Environments

Objectives

- Explore models of blended instruction
- Reflect on a blended learning model to implement in your classroom

Models of Blended



From: https://www.christenseninstitute.org/blended-learning-definitions-and-models/

Instruction

1. Four models of blended learning programs have been identified: (Horn & Staker, 2014)
    a. Rotation Model - students rotate on a fixed schedule or at the teacher's discretion between learning modalities, at least one of which is online. There are four sub-models:
        i. Station Rotation - students rotate within a contained classroom or group of classrooms.
            1. Video: The station rotation model
            2. Blended (R)evolution: How 5 teachers are modifying the Station Rotation to fit students' needs (Maxwell & White, 2017). Report on the evolving changes of 5 teachers teaching blended learning using station rotation.
        ii. Lab Rotation - students rotate to a computer lab for the online learning station.
            1. Video: The lab rotation model
        iii. Flipped Classroom - students participate in online learning off-site in a place of traditional homework and then attend the brick-and-mortar school for face-to-face, teacher-guided practice or projects.
            1. Video: The flipped classroom model

iv. Individual Rotation - each student has an individualized playlist and does not necessarily rotate to each available station or modality.

b. Flex Model - online learning is the backbone of student learning and students move on an individually customized, fluid schedule among learning modalities. The teacher of record provides fact-to-face support on a flexible and adaptive as-needed basis through activities such as small-group instruction, group projects, and individual tutoring.

i. Video: The flex model

c. A La Carte Model - student takes a course entirely online to accompany other experiences the student is having at a brick-and-mortar school or learning center

d. Enriched Model - students have required face-to-face learning sessions with teacher of record and then are free to complete their remaining coursework remote from the face-to-face teacher. Online learning is the backbone of student learning at remote locations

2. Videos of Blended Learning Models
3. Blended Learning Directory

Reflection

- Which blended learning model would you like to implement in your classroom and why?
- What steps would you take to begin the transition to implement that model?

Activity

- Develop a plan for the model of blended learning you plan to implement in your classroom

Module 4: Instructional Resources for Blended Learning

Objectives

- Explore resources for creating learning playlists
- Explore OER (open education resources)
- Explore blended learning plan sample lessons and lesson plan templates

What are learning playlists?

1. Playlists are a digital assignment chart built around an objective that allows students control over path and pace of content in multiple ways. Playlists can include media resources such as articles, videos, websites, images, online presentations, assessments and more.
2. Blog post: Adventures in Playlisting (McMillen, 2013) explores playlists from a student's perspective. It also describes the steps Summit took to improve their initial playlists, based on student feedback.

3. Blog post: Which Way for K12 Blended Learning? (Hernandez, 2013) lists out why playlists are going to happen in a clear and applicable manner.

Playlist Creators

1. The Learning Navigator by Gooru - allows teachers to create learning playlists for students. Also explore, use, and modify playlists that other teachers have created. Build and save your own collections, create classes, and analyze student progress. The Learning Navigator by Gooru is free for students and teachers to use.
2. PowerMyLearning -allows teachers to find and use vetted activities and assessments aligned to the Common Core and Next Generation Science Standards. Teachers can set classes, build playlists or assign from pre-built playlists. PowerMyLearning Connect Basic Edition is free for individual teachers, students, and parents.
3. Summit Learning Platform - a free online tool that allows teachers to customize instruction to meet student individual needs and helps students track progress towards short and long term goals. Teachers and schools must submit an application to have access to the Summit Learning Platform. View videos of past webinars.
4. Blendspace - a free online tool for teachers to collect resources in one place to create an interactive lesson for students.

5. LessonPaths - curate websites, videos, blogs and more into a learning playlist for students

Reflection

- Which playlist creator will you use in your classroom and why?

OER (Open Education Resources)

"Open Education Resources (OER) are teaching and learning materials that are freely available online for everyone to use, whether you are an instructor, student or self-learner. Examples of OER include: full courses, course modules, syllabi, lectures, homework assignment, quizzes, lab and classroom activities, pedagogical materials, games, simulations, and many more resources contained in digital media collections from around the world (McGill, 2014)."

1. OER Commons - created by IKSME provides a searchable database to learning resources that all educators and students browse, evaluate, and download. Resources can be searched by standards, subjects, and grade level.
2. Engageny - full curriculum for English Language Arts and Mathematics aligned to Common Core standards for grades K12.
3. Learn NC - search lesson plans by subject and grade level
4. Khan Academy - lessons, interactives, and videos for math, science and engineering, computing, arts and humanities.
5. CK12 - content for K12 in Math, Science, and English.

6. Readwritethink - lesson plans and interactives for English Language Arts curriculum K12
7. Project Gutenberg - free ebooks

Reflection

- Identify OER resources that you would like to use in your classroom.
- Describe how you will use the OER resources.

Lesson Planning for Blended Learning

Lesson plans for a blended learning environment must include plans for on and offline activities, as well as for each group and/or individual.

1. Mount Mourne School ERPD Blended Learning Lesson Plan - blended learning lesson plan templates, examples of blended learning lessons, and other things to remember when planning blended learning lessons.
2. BPS Blended Learning - Professional Development for Blended learning tab has a lesson plan planning document and template
3. Flipping the Classroom: Flipped K12 Sample Lesson Plans - sample lesson plans for using the Flipped Classroom model of blended learning.
4. Flipped Classroom Planner - resource for planning Flipped Classroom model lessons
5. BlendKit Course: DIY Project Tasks - resources to help plan and develop a blended learning course.

Reflection

- What will be the biggest change in the way you plan your lessons?

Activity

- Develop a lesson plan for one subject that allows you to implement the blended model you have chosen.
- Develop a playlist to support your lesson plan.

Assessment: Blended Learning Implementation Plan

- Include the following in your Blended Learning Implementation Plan for your classroom:
    1. Identify the subject/course you will convert to blended learning.
    2. Describe your blended learning model.
        i. Identify the blended learning model you plan to implement
            1. Will students rotate stations within the classroom?
            2. Will you flip your lessons?
            3. Other?
        ii. Draw a picture of what your blended learning environment will look like.
        iii. Describe what the blended learning time will look like for you and your students.
        iv. What will you need to implement this blended learning model?

3. Develop a unit or at least 1 week plan for your blended learning course/subject.
    i. Course/Subject Title
    ii. Title of Unit/Project
    iii. Length of unit/project (1 week, 1 month)
    iv. Unit/Project Goal and Objectives:
    v. Learning Outcomes (Activities)
    vi. Plan for Learning
        1. If your model is in-class rotation determine:
            a. Whole group activities
            b. Rotation group activities for each rotation
            c. Direct Teacher instruction
        2. If your model is flipped learning determine:
            a. Whole group activities
            b. Flipped learning activities
                i. Independent flipped activities: at home or at school
                ii. Whole group or small group school activities
    vii. Assessments
        1. How will you assessment students?

viii. Create a list of resources you will need to implement the unit/project

1. Create a playlist for the unit/project
2. List all digital and non-digital resources needed

Course Evaluation

1. To what extent did the course help you to define what blended learning is and what blended leaning is not?

   Ineffective Effective Exemplary

2. To what extent did the course help you to identify your purpose for transitioning to a blended learning environment?

   Ineffective Effective Exemplary

3. To what extent did the course help you to identify different models of blended learning?

   Ineffective Effective Exemplary

4. To what extent did the course help you to curate instructional resources for teaching and learning in a blended learning environment?

   Ineffective Effective Exemplary

5. What did you like most about the course?

6. What improvements do you feel are needed within the course?

7. What would you like to learn more about?

Appendix B: Online Demographic Survey

Fourth through sixth grade teachers were selected to participate in the research study. The Demographic Survey provided the researcher with information to select participants that meet the eligibility criteria. The survey also provided the researcher demographic data that will provide descriptive information on the research population but will have no impact on inclusion in the case study. By submitting the online survey you are giving consent to participate in the research. The researcher will email you within one week a consent form if you meet the eligibility criteria. At that time you may choose to consent to participate in the study or decline. Only the researcher will know your decision. The information collected in the survey will not be shared and will be kept anonymous.

Please take a few minutes to complete and submit the online survey.

1. Your Name (first and last)_____
2. Email address

   _____
3. Phone number

   _____
4. Male____ Female____
5. Age (circle your age bracket)
   a. 20-30 years old
   b. 31-40 years old

c. 41-50 years old

d. over 51

6. School site you currently teach at _____
7. Number of years you have been teaching _____
8. Number of years you have been teaching at your current site

   _____
9. Grade level you currently teach

   _____
10. Number of years you have been teaching concurrently at your current grade level

    _____

Thank you for submitting your responses to the survey. The researcher, Sandy Somera, will contact you within one week if you meet the research eligibility criteria to participate in the research study. Your participation is strictly voluntary and you may decline to participate.

Appendix C: Email to Potential Participants

My name is Sandra Somera and I am currently a doctoral student in Education at Walden University. My doctoral study is on the perceptions of educators that have transitioned their teaching to a blended learning environment. For my data collection I will be conducting interviews of teachers that have implemented blended learning. I will select participants that meet my study criteria based on responses to an online survey.

I have selected you as a potential participant in my study and would like to invite you to take the online survey. The survey should take less than 5 minutes to complete

After you take the online survey I will contact you to let you know whether or not you meet the criteria for my research study. If you do meet the criteria I will send you a letter of consent to participate in my study.

Participation in the study is strictly voluntary and all information you provide will be held in confidence. No responses will be linked or associated to you as the respondent. You have the right to withdraw from the study at anytime. Taking the online survey does not commit you to participating in my doctoral study.

Please click this link to access the survey.
Or copy and paste this link into your web browser, http://bit.ly/somerasurvey.

Thank you for your time and consideration.

Sandra Somera
Doctoral Candidate
The Richard W. Riley College of Education and Leadership
Walden University

Appendix D: Letter of Cooperation

April 30, 2015

Dear Sandra Somera,

Based on my review of your research proposal, I give permission for you to conduct the study entitled Educator Transition to Blended Learning Environment in K-6 Public Schools within the School District. As part of this study, I authorize you to:

- Distribute information on the purpose and intent of your research study through at least one of the following methods: presentation at a site faculty meeting, distributed paper flyers, and direct email.
- Collect demographic data on fourth through sixth grade teachers at the research sites by means of a survey for the purpose of selecting participants from each site that meet the research participant selection criteria.
- Interview the research participants on the school site after students have been dismissed for the regular school day in a designated room free of distraction or the teacher's classroom.
- Interview site and district administrators at a mutually agreed upon time and place.
- Email individual research participants a transcript of their interview for the purposes of checking for accuracy and intent.
- If clarifying information is needed, conduct follow-up interview with participants by phone, in-person, or video chat
- Collect redesign proposals (to be collected from site administrators).
- Collect documentation of pedagogical changes. Documentation may include changes in schedules such as computer use and instructional minutes, and sample lesson plans (if available to be collected from fourth through sixth grade teachers and/or site administrators).
- Present the results of the research and the doctoral study project at a school board meeting.

Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: providing the names and email addresses of all fourth, fifth, and sixth grade teachers at the participating school and a room to interview the participants without distraction, this room could be the teacher's classroom after students have been dismissed for the day. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB.

Sincerely,

Assistant Superintendent, Educational Services
School District

Appendix E: Interview Protocol

Research Questions:

- R: What are upper elementary grade teachers' experiences with blended learning?

Subquestions:

- SQ_1: How are upper elementary grade teachers defining blended learning at their school site?
- SQ_2: What are upper elementary grade teachers' perceptions of their transition from traditional teaching to a blended learning approach to teaching and learning?
- SQ_3: How has teaching and learning changed since their school adopted blended learning?

Interview Questions

1. I have been informed that your school has implemented a blended learning environment.
    a. Can you describe the decision-making process that took place when your school decided to implement a blended learning approach to teaching and learning? (SQ2)
    b. Why did your school decide to make a change in its approach to teaching and learning? (SQ2)
    c. What types of support were provided to help you implement blended learning in your classroom? (SQ2)

   d. Did you receive any training related to the change? If so tell me about the training(s). (SQ2)

2. Now that we have talked about the decision process to implement blended learning, I am interested in finding out what that means to you.
   a. How do you define blended learning? (SQ1)
      i. In what ways does teaching change in a blended environment? (SQ1)
      ii. In what ways does student-learning change in a blended environment? (SQ1)
      iii. What are some key components/strategies that are different, a change in a blended environment? (SQ1)
3. Describe your typical day or week in the classroom now that you have implemented blended learning. (SQ3)
   a. Describe the typical day or week for students. (SQ3)
   b. What has changed in your teaching or student learning? (SQ3)
4. What type of support do you still need or wish you had to make the transition easier? (RQ)
   a. Have you received any ongoing training? If so tell me about the ongoing training(s). (RQ)
5. If I were to walk into your classroom 4 years ago and then today
   a. Would your teaching look the same? If not what would I notice that would be different? (SQ3)

   b. Would student learning look the same? If not what would I notice that would be different? (SQ3)

6. Do you feel the transition from traditional teaching to a blended learning approach has been successful at your school? Why or why not? (RQ)
7. What recommendations would you make to a school deciding to make the transition from traditional teaching to a blended learning? (RQ)
   a. What supports will teachers need to be successful in the transition? (RQ)
   b. What types of training will the teaching need? (RQ)

Appendix F: Blended Learning in School District

Blended Learning in School District

October 2013

Background

In spring 2012 and 2013, we created opportunities for schools to redesign part or all of their program towards new models of learning. Blended learning has been the primary lens in shaping our work, but other frameworks such as PBL, PLC's, and thinking maps have also been adopted. I have been advocating the use of blended learning, design thinking principles and the adoption of faster cycles of design. With blended learning being one of our district priorities, I would like to issue a call to action for the next 20 months, taking us through the 2014-15 school year.

School redesign takes time and spring is a little bit late to start a design conversation about the next school year. I am going to propose that we launch a new cycle of design thinking in the fall of 2013 that will shape the rest of this year and the next.

Blended Learning – Current Definition

The latest definition of blended learning by Michael Horn and Heather Staker (Clayton Christensen Institute for Disruptive Innovation) 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 in part at a supervised brick-and-mortar location away from home.*"

Timeline

The following is a tentative timeline of deliverables, conversations, support systems, to help you lead design conversations at your school.

1. **Status report** of existing blended learning work – The Board of Trustees has asked for an update on blended learning across the district. They are completely informed about the work at the Elementary Schools and our preschools, but would like to hear how other schools are implementing blended learning. The majority of our schools have some type of pilot work that has elements of blended learning. I would like all principals

to submit a short **summary of your blended learning programs in 2013-14**. **Completion date, October 14, 2013.**

2. Future blended learning work in 2014-15 – We would like to hear from you about your **initial proposals** for blended learning at your school in 2014-15. A short list of questions are included below to help you frame your thoughts about next year. I would like you to complete this initial proposal as a preliminary step to frame a deeper design cycle. Completion date, **November 1, 2013.**

3. **Design workshops** – We would like to offer support for you to have design conversations with your teachers about creating or sharpening your implementation of blended learning. We could come work with your teams at your schools, and/or we could host a district-level design workshop day. The design day model has been used in the past and it seems to be a helpful format. Some of you are well on your way with **developing a blended learning model for your school** so such support is optional. **Completion date, Nov 30, 2013**.

4. Blended Learning Proposals for 2014-15 – We are interested in receiving proposals for blended learning in your school for the 2014-15 school year. A document is included below for you to complete. These proposals will help us understand your model and what support you will need. These proposals will also be helpful when you work on your SPSA's in the spring, should you be on cycle to write your plan. **Completion date, Dec 13, 2013.**

<u>Timeline Dates:</u>

October 14, 2013	Short summaries of your summer blended learning work for 2013-14
	(All schools that have blended learning)
November 1, 2013	Initial proposals for 2014-15
Nov 30, 2013 (could	Site design discussions with district support person as needed
	be district support person talking with site or a design thinking protocols day at the D.O.)
Dec 13, 2013	Blended learning proposals for 2014-15

Other considerations, **Implementation Grant Opportunity with Silicon Schools Fund**

We have built a relationship with Silicon Schools Fund (SSF) and their CEO, Brian Greenberg. The mission of SSF is to promote the implementation of blended learning in education and establish models for other schools and districts. In a sense, they are operating like a venture capital firm in the field of education and are looking for schools and districts to invest in. Brian has challenged us to identify a school (maybe more than one) that is ready to convert to a blended learning format for the 2014-15 school year. They are prepared to invest as much as $500,000 to support our work. They are only interested in schools that will implement a whole school blended learning model. I will translate that expectation to mean that a very large majority of your students should learn in a blended learning format in core academic subjects.

As we receive your plans for 2014-15, we will be looking for the best plans for a whole school blended learning model and may include your plan in our district application to SSF. That process will take place in January 2014.

Questions? The Assistant Superintendent of Educational Services and the Superintendent
will handle questions and coaching of your efforts along the way. Do think in terms of "multiple drafts" and ask us for support and clarification at any time.

Background reading and documents

Disrupting Class, by Clayton Christensen and Michael Horn

Is K-12 Blended Learning Disruptive? An Introduction of the theory of hybrids, Clayton Christensen, Michael Horn, Heather Staker

Appendix G: Elementary School

Elementary School

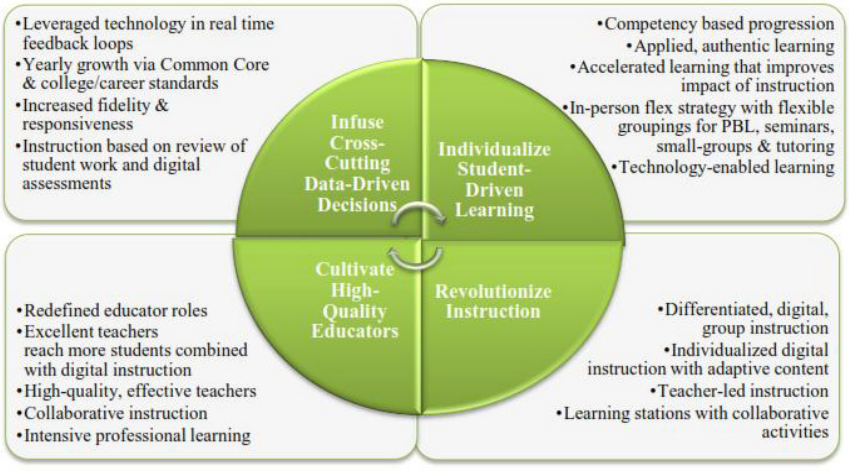
Currently we have 222 Chrome Book Computers that we use to enable a Blended Learning Model that takes place in our first through sixth grade classrooms. Transitional kindergarten, our kindergarten classes and our Special Day Class will also be doing Blended Learning in their classrooms by January 2014. They are currently using the desktop computer lab to learn the iReady program.

At we spent the 2012 – 2013 academic school year focusing on rigorous lesson planning. We adopted Thinking Maps as a tool to enable teachers and students to focus on the verbs you will see in Bloom's Taxonomy and Webb's Depth of Knowledge. The level of teaching and learning has been in the forefront of our Common Core journey. One concern that came to light with teachers was how and when to differentiate instruction for challenged or advanced students. This became the impetus of our Blended Learning Model.

The teachers advocated for a Blended Learning Model within their own classroom. By the end of the 2013 – 2014 academic year Tk – 6, including our SDC classroom, will have enough Chrome Books for one-third of their students. During our Blended Learning time in Math and English Language Arts students are grouped by specific needs. The groups include one computer station, at least one independent or collaborative workstation and one teacher station. Ultimately we hope to get more professional development on Project Based Learning for one of our stations.

During our Professional Learning Community (PLC) planning time, teachers use data to collaborate on specific standards and differentiated ways they will teach or reteach a concept. Teachers have four blocks of time within a month to meet with their grade level PLC. This is the time they use to plan for their Blended Learning Stations/Centers.

Our focus over the next two years will be to establish a Blended Learning Model that exemplifies the following:



Respectfully Submitted,

Appendix H: School Info

Short summaries of your summer blended learning work for 2013-14
(All schools that have blended learning)

Our summer work focused on PLC work. We knew in order for our Blended Learning model to be successful our grade level teams would have to work better together. While we were at the PLC conference we decided to focus on a new structure for our collaborative time. The three teachers and I spent the larger part of a planning day developing a plan to present to the staff. With the new schedule agreed upon and in place, our grade level PLCs are able to meet four times a month for approximately one hour each meeting. Our PLCs are imperative because this is where we have spent the majority of our time planning the independent work, project based learning, collaborative work and teacher direct instructions that we use during our Blended Learning time. During the summer a teacher and I also attended Thinking Maps Writing training. We brought the initial professional development for Response to Literature to the school during our August 14th day. This has added to our Common Core Standards journey with a focus on justification k-6th grades.

Initial proposals for 2014-15

We would like to continue building our knowledge of rigorous instruction with a focus on Project Based Learning and Thinking Maps Expository writing. We feel that Blended Learning will only be successful if we use the time students are working collaboratively or independently in meaningful ways. Student directed learning is how we see the 21st century skills being played out in our classrooms and school.

Site design discussions with district support person as needed (could be district support person talking with site or a design thinking protocols day at the D.O.)

fd

Blended learning proposals for 2014-15

fgg

Appendix I: Blended Learning Proposal for 2014-15

School
Blended Learning Proposal for 2014-15

Please describe the applicant school's proposed blended learning model as concretely as possible.

Currently we have 242 Chrome Book Computers that we use to enable a Blended Learning Model that takes place in our kindergarten through sixth grade classrooms. At the school we spent the 2012 – 2013 academic school year focusing on rigorous lesson planning. We adopted Thinking Maps as a tool to enable teachers and students to focus on the verbs you will see in Bloom's Taxonomy and Webb's Depth of Knowledge. The level of teaching and learning has been in the forefront of our Common Core journey. One concern that came to light with teachers was how and when to differentiate instruction for challenged or advanced students. This became the impetus of our Blended Learning Model.

During Math and English Language Arts students are grouped by specific needs within their own classroom. The groups include one computer station, one independent or collaborative workstation and one teacher station. During our Professional Learning Community (PLC) planning time teachers use data to collaborate on specific standards and differentiated ways they will teach or reteach a concept. Teachers have four blocks of time within a month to meet with their grade level PLC. This is the time they use to plan for their CCSS and Blended Learning Stations/Centers.

Include a description of the way you organize your school day/week, and the way blended learning

Teachers have the flexibility to create schedule in ways that fit their needs best. This year they have played with options such as block scheduling per subject area, rotations within classroom for language arts and math or even whole grade level rotations. Since this has been our year to experiment, we are constantly evolving our model so that we can be prepared for a solid plan in 2014 – 2015.

We do have a number of non-negotiables and expectations for our Blended Learning Model.

- You must implement blended learning in your classroom for language arts and math.
- Blended learning rotations will be a minimum of 20 minutes each for each subject.
- All students must rotate through the teacher for each lesson.
- Data is used to group students and create differentiated lessons.
- Lessons must address struggling learners and enrichment for higher learners.
- Students must be grouped according to need and it should be flexible so students move in and out of a group based on data.

Impacts your curriculum, instruction, and assessment processes. In what way is your program.

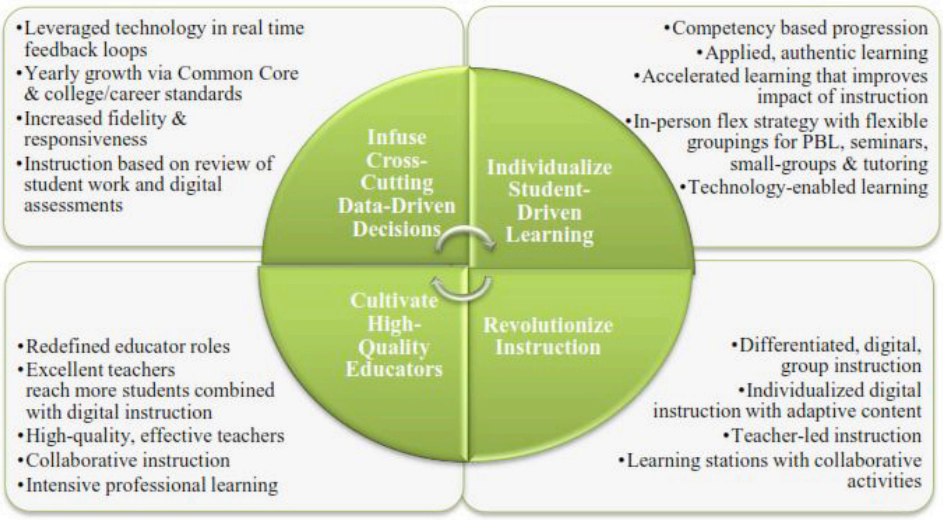
Students have begun taking ownership in their own learning since we adopted Blended Learning. Many teachers are creating independent or collaborative work that incorporates self-direction for intermediate students. Data from various programs gives students an awareness of their strengths and struggles. Students create roadmaps to help themselves find success.

Primary students have learned problem-solving skills as they do not always have direct access to teachers for simple questions. We have already noticed a huge difference in rigorous, on-task, and academic conversations.

Teachers have a greater awareness of student's needs based on the various pieces of data they get from programs such as iReady or Kahn Academy. Their grade level PLC time is spent creating rigorous and differentiated lessons to meet the needs of all their students. Since the students have lessons that are at their ability level, when they are working collaboratively or independently, they are successful in completing the assignment or task.

How is Blended Learning significantly different from traditional instruction?

Blended Learning is different because it gives teacher the gifts of time. When students are rotating through the computer station, teachers are gathering data without sitting at home at night with a red pen. We have a large pool of data and many ways to look at reports and progress for students. Once we have this data teachers work together to create lessons that will address multiple needs for students. The students are grouped together by need so the teachers only have to teach each lesson once based upon the scaffolding or enrichment needs of each group of students. When the students are in groups working collaboratively or independently they are on task because they are able to complete the work that has been leveled for their appropriate skill level. Teachers have found student behavior to be on task and office referrals have dwindled down to about one - two per month.



Appendix J: RFP for Blended Learning Schools in 2014-15

School
School District – RFP for Blended Learning Schools in 2014-15

Vision Statement – please include a brief vision statement for your school and how blended learning fits within that vision

Our Vision:
The school's community develops engaged, accountable and adaptable students in preparation for a global society through:

- Collaboration
- Communication
- Critical Thinking
- Creativity
- Caring

Our Blended Learning Model enables students to **collaborate** among themselves and teachers in meaningful ways. The emphasis in our model is differentiated instruction so when students are working with partners or groups they are able to have meaningful conversations within their ability level. We also encourage **creativity** and **critical thinking** through the lessons and projects we expect our student to produce. **Caring** and **communication** are nurtured through school wide expectations, which enable a successful Blended Learning Environment.

Overview of your model of blended learning - Include a description of the way you will organize your school day/week, and the way blended learning impacts your curriculum, instruction, and assessment processes. In what way is your program significantly different from traditional instruction?

Blended Learning is different because it gives teacher the gifts of time. When students are rotating through the computer station, teachers are gathering data without sitting at home at night with a red pen. We have a large pool of data and many ways to look at reports and progress for students. Once we have this data teachers work together to create lessons that will address multiple needs for students. The students are grouped together by need so the teachers only have to teach each lesson once based upon the scaffolding or enrichment needs of each group of students. When the students are in groups working collaboratively or independently they are on task because they are able to complete the work that has been leveled for their appropriate skill level.

During Math and English Language Arts students are grouped by specific needs within their own classroom. Teachers use data to put students into groups based on

differentiated needs from the various pieces of data they get from programs such as iReady or Kahn Academy. The groups include one computer station, one independent or collaborative workstation and one teacher station. In the past struggling students were pulled out of class to go to an intervention specialist for support. These instructional aides were not trained teachers and they did not necessarily have the expertise our teachers have. One benefit of Blended Learning is that the teacher is able to meet in small group with the struggling students, so now the teachers are able to better support the struggling student throughout the day. This also helps the students who are above grade level. Teachers created extension lessons to challenge the high students within the classrooms. Another benefit we have discovered from our Blended Learning experience this year is that students are on task and engaged in their work because it is at their ability level. Therefore our classroom behavior problems are almost nonexistent.

Teachers have the flexibility to create schedule in ways that fit their grade level or classroom needs. This year teachers have played with options such as block scheduling per subject area, rotations within classroom for language arts and math or even whole grade level rotations. Since this has been our year to experiment, we are constantly evolving our model so that we can be prepared for a solid plan in 2014 – 2015.

Role of the teacher and student - Please describe the role of the student in your blended learning program. How do you facilitate truly personalized learning for your students? What does a typical student day look like? Please also describe the role of the teacher in your program. What does a typical teacher day look like?

During our Professional Learning Community (PLC) planning time teachers use data to collaborate on specific standards and differentiated ways they will teach or reteach a concept. Teachers have four blocks of time within a month to meet with their grade level PLC. This is the time they use to plan for their CCSS and Blended Learning Stations/Centers. We spent the 2012 – 2013 academic school year focusing on rigorous lesson planning. We adopted Thinking Maps as a tool to enable teachers and students to focus on the verbs you will see in Bloom's Taxonomy and Webb's Depth of Knowledge. Rigorous levels of teaching and learning have been in the forefront of our Common Core journey. When teachers are differentiating lessons for challenged or advanced students they are mindful of keeping the rigor in lessons. Thinking Maps have helped our teachers create multiple lessons with the same grade level text for each of the differentiated groups. These foundational skills are imperative for students as they begin to tackle non-fiction text that research and project based learning projects will focus on.

The typical day for our teachers would include a whole group overview or model of the day's lesson in ELA or Math. Next would be specific instructions on the expectations for each group. Students would then go into their assigned group where they would either be with the teacher, on the computer or working independently/collaboratively. The teacher would provide appropriate differentiated scaffolding for the group she is teaching. She

would end her time with the students with an example of what they are expected to produce during independent/collaborative time. The rotations average 40 – 50 minutes depending on the grade level. Students would rotate through her using this model for both ELA and Math. Science and Social Studies are often embedded within the language arts time, which creates the conditions for Project Based Learning.

What student learning outcomes do you want to achieve with a blended learning model?

Ultimately I would like to see our Blended Learning model take on more of a project based learning program for students. I believe that Common Core Standards are the perfect impetus for Project Based Learning and Blended Learning. I envision students learning the foundational skills from the teacher and from software then applying it in a real world application. The true college and career readiness comes from students who are able to take a complex problem, break it apart, research it through the computer and look at multiple solutions. Blended Learning gives us the tools to be able to create these conditions for students.

Please list the names of all staff members who endorse this proposal and will support a blended learning implementation in 2014-15.

All of our teachers Kinder through Sixth grade are on board with Blended Learning already. Our families and students are also raving about how much they love the transition in our educational program this year.

Appendix K: Member Checking Email Teacher A

Member Checking Email

Thank you for your participation in my doctoral study on educator transition to a blended learning environment. Themes that resulted from the interview and classroom observational data is summarized below. Please let me know if these are an accurate representation. If you have any suggestions, modifications, or questions, please contact me.

The purpose of this study was to capture teacher perceptions of their transition to a blended learning environment. The research questions in this study were :

1. What are upper elementary grade teachers' experiences with blended learning?
2. How are upper elementary grade teachers defining blended learning?
3. What are upper elementary grade teachers' perceptions of their transition from traditional teaching to a blended learning approach to teaching and learning?
4. How has teaching and learning changed since the adoption of blended learning?

Below is a brief summary of key themes from the interview and my observation.

1. Decision process: top down, freedom to design, expectation for all
2. Blended learning definition: student-centric, personalized learning on computer, students work independently
3. Support needs: more guidance, examples and definition of blended learning, processing time, creating appropriate flexible groups, work for independent groups
4. Changes: classroom rotation model, 3 rotations (independent, personalized online, teacher), grouping flexible, better meeting the needs of all students, students self-monitor, ownership for learning, limited whole group instruction, increased rigor
    - Independent rotation - students work independently on paper/pencil/book assignment
    - Personalized online - students work online based on needs/level (iReady & Khan Academy)
    - Teacher rotation - mini-focused small group lessons in math, language arts

How has your implementation of blended learning changed since you first began 4 years ago? I believe you started with Language arts and then added math. You have 3 groups (independent, online, teacher). I believe your rotation time is 30 minutes per rotation. Has this changed in anyway? How much of your time is blended learning? Is there anything else that has changed over time? What is the greatest benefit from changing to a blended learning environment?

Would an online learning network of resources and other blended learning elementary educators be of value to you?
Please email me your response to the questions above and any additional information or clarification you would like to add.

Thank you again for your participation in my research!

Sandra Somera

Appendix L: Member Checking Email Teacher B

Member Checking Email

Thank you for your participation in my doctoral study on educator transition to a blended learning environment. Themes that resulted from the interview and classroom observational data is summarized below. Please let me know if these are an accurate representation. If you have any suggestions, modifications, or questions, please contact me.

The purpose of this study was to capture teacher perceptions of their transition to a blended learning environment. The research questions in this study were :

1. What are upper elementary grade teachers' experiences with blended learning?
2. How are upper elementary grade teachers defining blended learning?
3. What are upper elementary grade teachers' perceptions of their transition from traditional teaching to a blended learning approach to teaching and learning?
4. How has teaching and learning changed since the adoption of blended learning?

Below is a brief summary of key themes from the interview and my observation.

- Decision process: team decision, freedom to design, expectation for all
- Blended learning definition: student-centric, personalized learning
- Support needs: processing time, using data effectively to inform instruction and grouping, creating appropriate flexible groups, planning time, curated online resources, immediate tech support
- Changes: classroom rotation model, 3 rotations (independent, personalized online, teacher), use of data (group students and guide instruction), grouping flexible, better meeting the needs of all students, students self-monitor, ownership for learning, limited whole group instruction
    - Independent rotation - students work independently or collaboratively, paper/pencil/book/digital devices/online on assignments per their learning plan
    - Personalized online (Personal Learning Time) - students work online based on needs/level
    - Teacher rotation - mini-focused small group lessons in math, language arts, social studies

How has your implementation of blended learning changed since you first began 4 years ago?

- I believe you started with Language arts, then added math and now social studies.
- Started with 3 groups (collaboration, online, teacher) to 4 groups (independent, collaboration, personal learning time, teacher).
- I believe your rotation time has changed, you started with 20-30 minutes per rotation. Now 45 min
- School focus is now on personalized learning time where students can work online or on projects, based on their action plans and goal setting, or academic updates
- Greatest benefit:
    - we are better meeting students' needs and preparing them for thier future years in school/life
    - Students are engaged, challenged and have autonomy in their learning

Would an online learning network of resources and other blended learning elementary educators be of value to you?

- The platform that we are using this year has an abundance of online resources and we meet weekly with support provider. It has been very helpful

Please email me your response to the questions above and any additional information or clarification you would like to add.

Thank you again for your participation in my research!
Sandra Somera

Appendix M: Member Checking Email Response Teacher B

Hi Sandy,

I feel that the majority of your notes are accurate. There are just a couple of revisions that I would like to make:

How has your implementation of blended learning changed since you first began 4 years ago? I believe you started with Language arts, then added math and now social studies. You went from 4 groups (collaboration, independent, online, teacher) to 3 groups (independent, personal learning time, teacher). **I started with 3 groups and then changed to 4 groups.** I believe your rotation time has changed, you started with 20-30 minutes per rotation. What is the rotation time now? **My rotations were extended to 45min time blocks.** Is there anything else that has changed over time? **Our school is changing to personalized learning. I have structured personalized learning time where students can work online or on projects, based on their action plans and goal setting (it is all individualized). During this time, I meet with small groups for instruction or I have one-on-one meetings with students for check-ins, goal setting, or academic updates.** What is the greatest benefit from changing to a blended learning environment? **We are better meeting students' needs and preparing them for their future years in school/life. Students are engaged, challenged, and have autonomy in their learning.**

Would an online learning network of resources and other blended learning elementary educators be of value to you? **The platform that we are using this year has an abundance of online resources and we meet weekly with a support provider. It has been very helpful.**

Please email me your response to the questions above and any additional information or clarification you would like to add.

Thank you Sandy!