

BLENDDED LEARNING: PERSPECTIVES FROM FIRST TIME HIGH SCHOOL
INSTRUCTORS

by

Tammy Mann Parlier

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University

2016

BLENDDED LEARNING: PERSPECTIVES FROM FIRST TIME HIGH SCHOOL
INSTRUCTORS

by Tammy Mann Parlier

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

Liberty University, Lynchburg, VA

2016

APPROVED BY:

Dr. Harvey Klamm Ph. D. Committee Chair

Dr. Dana Norman, Ed. D., Committee Member

Dr. Fred Conner, Ed. D., Committee Member

ABSTRACT

The purpose of this collective case study was to understand the transitional experiences of first time instructors, teaching a blended learning course at three separate high school sites. Blended learning is defined as inquiry that combines both face-to-face and online modalities (Halverson, Graham, Spring, & Drysdale, 2012). This unique merger between both traditional face-to-face instruction and innovative online learning creates transition and change experiences for instructors as they adapt their practice to satisfy the requirements of the blended learning environment (Guskey, 1986). Data collected through individual interviews, reflective journals, observations, and a culminating focus group interview examined these experiences in search of the successes and challenges encountered by instructors new to blended learning. The findings included five broad themes related to change, uncertainty, technology, collaboration, and student-centered pedagogy. The participants grappled with change in both concrete and personal ways as they journeyed through a unique change process that transformed their instruction, their interactions with students, and ultimately their pedagogy about learning. The participants struggled with feelings of uncertainty connected with the many changes they experienced. The use of technology as well as collaboration were integral components of the participants' experience with blended learning.

Keywords: blended learning, hybrid learning, online learning, face-to-face instruction

Table of Contents

ABSTRACT..... 3

Table of Contents..... 4

List of Tables 9

CHAPTER ONE: INTRODUCTION.....10

 Overview.....10

 Background.....10

 Situation to Self12

 Problem Statement.....13

 Purpose Statement.....14

 Significance of the Study.....15

 Research Question18

 Guiding Question One18

 Guiding Question Two.....18

 Guiding Question Three.....19

 Guiding Question Four19

 Research Plan.....20

 Delimitations and Limitations21

 Terms and Definitions21

 Summary.....22

CHAPTER TWO: LITERATURE REVIEW.....24

 Overview.....24

 Theoretical Framework.....24

Change	25
Teacher Change Model	25
Implications.....	27
Social Constructivism	28
Community of Inquiry	31
Community of Inquiry and K-12 Learning.....	34
Summary	35
Related Literature	36
Blended Learning.....	36
Best Practices for Quality Blended Learning.....	39
The Sloan Consortium Quality Framework	39
Perceptions of Blended Learning.....	43
Preparedness for Blended Learning	48
Instructor and Student Roles.....	51
Instructor and Student Behaviors.....	55
Summary.....	57
CHAPTER THREE: METHODS	60
Overview.....	60
Design	60
Research Question	61
Setting	62
Participants.....	65
Procedures.....	67

The Researcher's Role.....	68
Data Collection	69
Semi-Structured Interviews	70
Reflective Journals.....	74
Nonparticipant Observations	75
Focus Group Interview	76
Data Analysis	77
Coding.....	78
Trustworthiness.....	79
Credibility	79
Dependability and Confirmability	80
Transferability.....	81
Ethical Considerations	82
Summary.....	82
CHAPTER FOUR: FINDINGS.....	84
Overview.....	84
Participants.....	85
Carol.....	85
Holly	85
Lori.....	86
Angel.....	86
Mary	86
Results.....	87

Case Summaries.....	87
Themes.....	104
Research Question Responses.....	111
Summary.....	138
CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS	144
Overview.....	144
Summary of Findings.....	144
Guiding Question 1	144
Guiding Question 2.....	145
Guiding Question 3.....	145
Guiding Question 4.....	146
Discussion.....	148
Change in Pedagogy	151
Community of Inquiry	151
Social Constructivism.....	153
Perceptions.....	154
Preparation	155
Instructor and Student Roles.....	156
Implications	158
Division and School Leaders	158
Teachers	161
Students.....	161
Larger Education Community.....	162

Delimitations and Limitations	162
Recommendations for Future Research	163
Summary.....	164
References.....	166
Appendix A.....	182
Appendix B.....	183
Appendix C.....	184
Appendix D.....	185
Appendix E.....	186
Appendix F.....	188

List of Tables

Table 1.	Participants.....	67
Table 2.	Results of Participants' Progression through Guskey's Model for Teacher Change.....	105
Table 3.	Classroom Observation Data: Instructor Interactions with Students.....	121

CHAPTER ONE: INTRODUCTION

Overview

Chapter one provides an overview of this collective case study. The chapter begins with background information regarding blended learning. This section is followed by information pertaining to the researcher's experience and perspectives related to the study. The problem and purpose statements are presented and lead to a discussion of the significance of the research. The research question is introduced with four supporting guiding questions. The research plan is described and followed by delimitations and limitations of the study. A listing of pertinent terms and definitions are specified. The chapter concludes with a summary of the chapter's content.

Background

Technology use in schools is increasing and the impact of technology on instruction continues to intensify as more instructional options become available to teachers and students. Blending technology with traditional instructional practice is a cutting edge innovation that is changing how educators and students approach learning. Blended learning is one promising innovation that continues to gain acceptance in schools (Picciano, Seaman, Shea, & Swan, 2012). Blended learning is an instructional delivery method that combines face-to-face instruction and online learning (Halverson, Graham, Spring, & Drysdale, 2012). Cavanaugh (2013) reported that district-operated forms of blended learning represent the greatest area of growth related to technology-enhanced instruction within K – 12 schools. As blended learning programs increase, challenges to traditional thinking about classroom environments and instructional practice emerge. Due to the speed at which blended learning methods are being integrated into the learning environment, changes in the learning environment have occurred largely in the absence of grounded research (Ugur, Akkoyunlu, & Kurbanoglu, 2011).

The use of technology in schools has expanded from computers in classrooms and lab settings to various forms of online learning that may occur within and outside the traditional classroom. Online learning that began primarily in universities expanded to public schools by the year 2000 (Lampton, 2009). According to the National Center for Education Statistics (Zandberg & Lewis, 2008), student enrollment in some form of technology-enhanced coursework grew 65% during a two school-year period from 2002 – 2005. By 2007-2008, more than a million students in grades K-12 were enrolled in online coursework (Picciano et al., 2012). This trend is expected to continue, with some scholars predicting that nearly one fourth of all secondary school courses will become available online (Picciano et al., 2012). By the close of 2010, 48 states in the United States offered some form of online learning opportunity to at least a portion of the K-12 student population (Wicks, 2010), and that number increased to include all 50 states by 2013 (Watson, Murin, Vashaw, Gemin, & Rapp, 2013). In some states, options for online learning have become requirements (Davis, 2011; Watson, Gemin, Ryan, & Wicks, 2009). Alabama, Idaho, Florida, Michigan, and Virginia have adopted online learning as part of graduation requirements for high school students (Watson, Murin, Vashaw, Gemin, & Rapp, 2011).

Research related to online learning, however, has focused on higher education with little consideration for online learning in K-12 settings (Halverson et al., 2012; Means, Toyama, Murphy, Bakia, & Jones, 2010; Ugur, et al., 2011). Studies in higher education have documented definitions and models of blended learning (Fisher, 2010; Pape, 2010; Ugur et al., 2011), benefits to blended learning (Picciano et al., 2012; Ugur et al., 2011), barriers to implementation (Pape, 2010; Picciano et al., 2012), student perceptions (Anastasiades, Vitalaki & Gertzaskis, 2008; Brew, 2008; Chandra & Fisher, 2009; Selwyn & Bullon, 2000; Ugur et al.,

2011; Vaughan, 2007), and faculty needs and perceptions (Niemic & Otte, 2009; Palak & Walls, 2009). Educators in K-12 settings have been left to largely rely on the research from higher education when initiating blended learning programs with younger learners. Concerns have risen regarding the applicability of the higher education research to the learning needs of children due to their inherent maturational differences (Cavanaugh, Gillan, Kromrey, Hess, & Blomeyer, 2004; Halverson et al., 2012). In addition, differences are vastly different in the learning environments of young learners attending public schools and adults in the college setting. These differences raise questions about the challenges faced by instructors who must adapt their practices in a manner that creates an appropriate blended learning environment for younger learners and provide guidance and support for students as they adjust to the blended learning process. Expanded use of technology-enhanced learning options such as blended learning continues despite little research to guide instructors as they adjust to this form of instructional methodology in K-12 settings (Cavanaugh, et al, 2004; Halverson et al., 2012; Means, et al, 2010).

Situation to Self

As a veteran public school educator, I bring 30 years of teaching and administrative experience to the approach of this research. My background contains both personal and professional experiences with blended learning. Fully online and blended learning courses have been a large component of my graduate coursework, and I have taught four graduate level blended learning courses. In addition, I have promoted blended learning within the school where I currently serve as principal. In this capacity, I have helped develop an online tutoring program that matched university students with elementary students through an online video conference

connection. I have also encouraged and supported blended learning as an avenue for students to gain access to advanced coursework not available at the elementary level.

My philosophical views are a combination of interpretivism and pragmatism.

Interpretivism is philosophical view of the world that begins with the assumption that reality cannot be separated from human interpretation (Crotty, 2004). Human interpretations of reality are rooted in the social context. Research from this perspective seeks a greater understanding of the human experience (Kim, 2003). My views on learning are grounded in social constructivism which also aligns with the notion that social reality does not exist without the constructed meaning of individuals (Gall, Gall, & Borg, 2010). Thus, multiple realities in social learning situations are inevitable. Social constructivism adds to my belief that learning is a social event. I am also a pragmatist, however. While my constructivist philosophical views most certainly focus the lens through which I view learning, these views merely provide the vehicle for the discovery and understanding of pragmatic outcomes, applications, and solutions to real issues related to teaching and learning. To that end, the information gained from this study should shed light on pragmatic solutions and applications for future blended learning implementations.

Although I currently serve as an elementary principal within the same school district as the selected secondary school research sites, no relationship exists between me and participants at any of the sites. Serving as the human instrument for data collection for this study, I conducted the interviews, completed the classroom observations, and collected the electronic reflection journals. In addition, I reviewed and interpreted all data.

Problem Statement

The problem that prompted this study is the use of the blended learning instructional format in secondary school settings, despite the lack of research regarding the implementation of

blended learning programs (Cavanaugh, et al, 2004; Means, et al, 2009). Although blended learning is gaining popularity in elementary and secondary schools, a meta-analysis conducted by Means et al. (2009) reported very few studies regarding the implementation of blended learning with younger learners. A void in the research at the high school level presents a gap in the literature that limits the guidance available to practitioners who wish to establish and implement blended learning programs in their schools.

Exploring the perceptions of first time instructors involved in blended learning at the secondary school level can provide insight and guidance to educators who are transitioning from traditional instructional experiences to blended learning programs. This study sought to add to the body of literature by studying specific cases of blended learning implementation experiences of high school instructors new to blended learning. Without research at the precollege level, school leaders must use caution when applying current research findings related to instructors of college students to programs for elementary and secondary school environments.

Purpose Statement

The purpose of this collective case study was to investigate the experiences of first time teachers, regarding their experiences as they transitioned into a blended learning instructional environment at the high school level. Increased understanding of how instructors perceive the blended learning transitional experience can aid practitioners in improving blended learning experiences for teachers. A variety of studies at the higher education level have investigated instructors' perceptions of blended learning (Grgurovic, 2011; Mahdizadeh, Biemans, & Mulder, 2008; Napier, Dekhane, & Smith, Niemiec, 2011; & Otte, 2009; Palak & Walls, 2009). Additionally, Burkle and Cleveland-Innes (2013) and Comas-Quinn (2011) conducted studies that specifically included examinations of the transitional experiences of instructors at the

college level. These studies focused on higher education environments, however, and it cannot be assumed that these results will generalize to younger learner blended learning environments. This study sought to address this void in the body of knowledge by investigating the experiences of instructors at the secondary school level to determine their challenges and successes.

Significance of the Study

This study is significant because there has been little research related to blended learning in secondary school settings. A meta-analysis conducted by U. S. Department of Education (Means, et al., 2009) reported very few studies regarding the implementation of blended learning with younger learners. A meta-analysis conducted by Zhao, Lei, Yan, Lai, & Tan (2005) related positive effects when blending online and face-to face instruction with pre-college students. The remaining research with K-12 education, though, focused primarily on broad program evaluations and policy, rather than best practices for instructors and learners (Rice, Dawley, Gasell, & Florez, 2008). Halverson et al. (2012) noted that most of the seminal research associated with blended learning at any level has not been empirical in nature, focusing instead on defining blended learning models. Despite this dearth of empirical research, most school district technology-enhanced programs utilize a blended rather than fully online methodology (Watson et al., 2011). This void in the literature, combined with the popularity of blended learning programs, indicated the need for additional research regarding how blended learning instructors experience this innovative instructional practice with younger learners.

Studies in higher education blended learning programs have reviewed the outcomes and experiences of adult learners and instructors (Banerjee, 2011; Napier et al., 2011). Results noted in the literature comparing student achievement outcomes in blended learning to face-to-face models (Cavanaugh et al., 2004; Chiero & Beare, 2012). Researchers suggest that although

student and faculty perceptions of blended learning in the higher education setting are positive (Grgurovic, 2011; Niemiec & Otte, 2009), difficulties related to transition from traditional instructional delivery to the blended learning model (Bakkenes, Vermunt, & Wubbels, 2010; Burkle & Cleveland-Innes, 2013; Comas-Quinn, 2011; Pape, 2010) as well as professional development needs for instructors (Kenney & Newcombe, 2011; Pape, 2010) are salient concerns in the blended learning implementation process in higher education.

Comas-Quinn (2011) examined teachers' experiences after a university made the decision to offer an intermediate Spanish course in a blended learning format. Instructors in this case were not provided choice in the instructional format and were required to make the transition to blended learning. Major findings from this study were related to technology, the integration of technology into the course, and instructor concerns regarding time. Many participants reported recurring issues with the reliability and effectiveness with the technology, stating that the technology tools did not integrate well with the goals and activities for the course. Some teachers reported tools, such as the blog, were not useful, and, as a result, most students did not take advantage of this learning tool. Time was also noted as a significant concern by the instructors, reporting that adjusting to teaching in the online learning environment added considerably to their workload.

The impact of instructional change was noted as a theme enmeshed with the major findings regarding technology, technology integration, and how teachers managed time (Comas-Quinn, 2011). Teachers experienced a number of changes that transformed their traditional role as college instructor. Teachers struggled with learning many new things simultaneously. These changes included mastering the use of online learning tools as well as embracing new pedagogy for teaching and learning. In short, teachers felt overwhelmed with their new role with so many

new skills to learn within a short period of time. Comas-Quinn suggested the need for additional research, as well as more rigorous and ongoing training programs, for teachers new to online and blended learning.

Burkle and Cleveland-Innes (2013) analyzed the role adjustment experiences of first time post-secondary online learners and their instructors. Instructors and students in this study faced adjustment challenges that require the development and application of new skills in the online learning environment. The role of the instructor was transformed from teacher's transferring knowledge to students to a role of being the facilitator for knowledge acquisition. In the midst of adjusting to this pedagogical shift, teachers also had to develop skills to support their students who were also adjusting to the online learning environment. Student learning was impacted by the instructors' ability to make these role adjustments and new pedagogy. The authors noted the need for professional development to enhance and ease the transition into blended learning. The authors also called for further study of the role adjustment experiences of instructors new to blended learning environments, to clarify the challenges and identify needed interventions.

School divisions who educate students in grades kindergarten through twelve are transitioning toward the inclusion of more blended learning instructional options at an ever increasing rate (Picciano et al., 2012). Continued growth in online learning will likely impact precollege education, and potentially replace many traditional methods for instruction. The result of the literature review prompted questions in the mind of this researcher as to how these issues may impact the experiences of instructors undertaking blended learning instruction at the secondary level. Current research in the field of online learning in K-12 settings is incomplete. This study builds from existing higher education research by investigating the experiences of teachers directly involved with blended learning at the high school level. From the results of this

study, practical insights will be provided for school leaders who are planning to transition their students and staff into the blended learning instructional model.

Research Question

What are the experiences of first time high school instructors of a blended learning course? Studies conducted in higher education settings confirm the impact of perceptions of blended learning on both motivation and satisfaction with the overall experience (Grguvoric, 2011; Lopez-Perez, Perez-Lopez, & Rodriguez-Ariza, 2011, Niemiec, & Otte, 2009; Ozkan & Koseler, 2009). While perceptions may impact the approach in changing to the use of blended learning, other aspects such as preparedness to teach, relational role adjustments between teachers and students, and methods adjustments needed for student learning success may have even greater impact on the transition to the blended learning environment. The following sub-questions were utilized in search of meaning within the research question.

Guiding Question One

What were the instructor's perceptions of blended learning prior to their involvement in blended learning? Instructor's perceptions are a vital component of educational practice (Grgurovic, 2011; Mahdizadeh, Biemans, & Mulder, 2008; Palak & Walls, 2009). While teachers often harbor positive attitudes towards general technology use (Niemiec & Otte, 2009), less is known about the perceptions of first time instructors of blended learning prior to their blended learning experience.

Guiding Question Two

What are the preparation experiences of first time blended learning instructors? Bakkenes et al. (2010) found that the implementation of innovative practices in education can be

threatened when teacher preparation is overlooked. The value of professional development related to providing instruction online is also noted in the literature (Kenney, Padmini, & Newcomb, 2010; Pape, 2010; Shaw, 2009). Instructors are charged with facilitating student learning within the blended learning environment. As a result, student preparation for online learning, or lack thereof, can also impact the experiences of blended learning instructors (Burkle & Cleveland-Innes, 2013; Kemmer, 2011). This guiding question seeks to uncover the teacher's preparation experiences and how this experience impacted their ability to carry out their new role in the blended learning course.

Guiding Question Three

What teacher and student role adjustment experiences confront the first time blended learning instructors? Teaching in an online learning environment represents a significant change for experienced instructors (Postholm, 2012). The transition from traditional teaching methodology to the blended format requires a paradigm shift related to teacher's roles (Ugur et al., 2011). This new role aligns with constructivist principles that emphasize active learning for students as well as a facilitator role for instructors (Duelen, 2013). Embedded in the changing role for teachers is the need for instructors to adapt their practice in a manner that recognizes and supports the shifting roles of students. Students are expected to be more self-directed and assume greater responsibility for their own learning during the online components of blended learning courses (Burkle & Cleveland-Innes, 2013; Napier et al., 2011; Shaw, 2009).

Guiding Question Four

What strategies or practices do first time blended learning instructors employ in transitioning themselves and their students to the blended learning environment?

Social Constructivism (Vygotsky, 1978) provides the basis for teaching strategies that promote student interaction and problem solving within the zone of proximal development. Scaffolding is encouraged and can be provided in the blended learning environment through the use of a variety of technology tools in the online environment (Napier et al., 2011).

Research Plan

The emerging nature of blended learning in the K-12 setting, as well as the need to understand the experiences of first time instructors within the natural context, supports the use of qualitative case study research. The research questions were explored within the current real-life educational settings, bounded by time (school year) and place (specific high school sites). A collective case study design was utilized to focus on five first time instructors of a blended learning course at the high school level. Teachers from three high school sites within the same school district served as the participants. The research plan included face-to-face interviews with each instructor. Observations, electronic reflective journals, and a focus group provided additional data sources. Data were examined and evaluated, through the use of coding, to articulate themes across the cases.

The use of the collective case study research design provided a distinctive viewpoint from which to draw conclusions regarding the truth about adjustments made by teachers within the blended learning setting. Rich descriptions of the change experiences of the individual teachers were collected directly from the participants, capturing their unique expression and voice. This form of data collection is limited to qualitative inquiry and allows for the retention of essential elements from the real life experience. These vital components would likely be lost by research methodologies that separate the research from the social context of the blended learning instructional environment. Analysis of themes across these individual cases provided

the opportunity for developing a single set of cross-case findings about the true nature of the adjustment experience of first time blended learning instructors.

Delimitations and Limitations

Delimitations are the boundaries set by the researcher for this study. In this case, the delimitations include limits placed on the setting and participants. Teacher participants from three separate high schools were purposefully selected for the study. Teacher selection was limited to first-time teachers of blended learning courses. Although these instructors were novice teachers with respect to the blended learning methodology, each instructor had least 4 years of teaching experience through the traditional face-to-face instructional format with the most experienced teacher posting 25 years of classroom experience. The focus for this study was the experiences of the instructors, therefore, no data was collected directly from the students. While these delimitations purposefully focused the scope of the study, they also limited how the findings might be applied to other blended learning programs with differing characteristics.

Limitations are those aspects of the research design or methodology that can impact the interpretation or analysis of the study's outcomes (Creswell, 2008). Case study research in general is limited by a reduction in the ability to generalize the findings to situations outside the study (Creswell, 2013). In this case, the impact is mediated by the collection of data from multiple cases across three settings. The potential influence of the researcher's personal bias is may serve to limit the research, since the researcher served as the sole instrument for data collection. Personal reflection, memoing, and member checking were utilized to minimize the impact of personal bias.

Terms and Definitions

Important terms utilized throughout this document are defined in this section.

1. *Blended learning* - Blended learning is an instructional delivery method that combines face-to-face instruction and online learning (Halverson et al., 2012).
2. *Face-to-face instruction* – Face-to-face instruction refers to the component of blended learning that occurs with the teacher and student within a more traditional classroom environment (Chandra & Fisher, 2009).
3. *Scaffolding* – Scaffolding is a technique where an instructor or peer provides support to learners within the zone of proximal development (Vygotsky, 1978).
4. *Zone of proximal development* - The zone of proximal development is “the distance between the (child’s) actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under the adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 131).

Summary

Blended learning is a promising instructional methodology that is gaining in popularity and acceptance in both higher education and precollege learning institutions (Picciano et al., 2012). The brisk pacing of the application of blended learning methods in elementary and secondary schools has occurred despite a void in research regarding the use of blended learning with younger learners (Ugur Akkoyunlu, & Kurbanoglu, 2011). Existing research has focused on higher education (Halveson, et al., 2012; Means et al., 2009; Ugur et al., 2011), leaving educators in elementary and secondary school settings no choice but to apply these findings within their educational contexts. Concerns regarding the applicability of research grounded in higher education, due to the innate differences between older and younger learners (Cavanaugh et al., 2004; Halverson et al., 2012), prompted the impetus this collective case study.

The purpose of this study was to add to the body of knowledge by illuminating the experiences of first time instructors of a blended learning course at the high school level. The research was guided by a single research question: What are the experiences of first time high school instructors of a blended learning course? With this as the single broad research question, four guiding questions further focused the research toward instructor perceptions prior to teaching the blended learning course, the instructors' preparations experiences, role adjustment experiences, and the transition strategies developed by the instructors to assist themselves and their students as they progressed in the blended learning environment.

CHAPTER TWO: LITERATURE REVIEW

Overview

This study investigated instructors' experiences while engaged in their initial involvement as teachers in a blended learning course. Particular attention has been given to the transition experiences. This chapter provides a description of the theoretical frameworks that grounded the study. Justifications for the selection of each theory are included. The chapter concludes with a review of the related literature, focusing on the following topics directly related to this study: blended learning defined, teacher perceptions in transitioning to blended learning, instructor and learner roles in blended learning, preparedness for these roles, and best instructional practices for the blended learning environment.

Theoretical Framework

Blended learning is an instructional delivery methodology that combines elements from both the traditional classroom learning environment where face-to-face instruction is the norm with components of fully online learning where instructors and students may be physically separated. Transitioning into an innovative approach to teaching, such as blended learning, propels instructors into uncharted territory, requiring change in their usual classroom practices. These changes are complex, and in many ways, unique to teachers. When transitioning to the blended learning instructional environment, instructors experience a distinct change process that includes adjusting to a learner-centered pedagogy and the online teaching environment. The notion of the impact of life change for the teacher is the initial focus. As a result, the theoretical framework for this study begins with Guskey's Model of the Process of Teacher Change (1989).

Due to the limited advances in theory development specific to blended learning (Drysdale, Graham, Spring, & Halverson, 2013; Graham, 2013; Halverson et al., 2012),

theoretical frameworks relevant to traditional pedagogy and student learning, Social Constructivism (Vygotsky, 1978) and the Community of Inquiry Framework (Garrison, Anderson, & Archer, 2000), will be the lens' to view this study's investigation into the instructor's experiences as they made the change to the blended learning pedagogy.

Change

Change in general, causes feelings of discomfort and anxiety for human beings, and teachers are no different from the general population when it comes to change. Change for teachers within the educational context, however, is different from the typical changes that individuals or even organizations might encounter (Guskey, 1989). Individuals may desire a personal change concerning a particular habit. Organizations may initiate an institutional change regarding behaviors and practice that impact the function of the organization. When considering the work of teachers, change is largely introduced for the purpose of impacting student learning in a positive way. As a result, teachers experience a distinctive change process that is uniquely linked to learning outcomes for their students (Guskey, 1989; Richardson, 1998).

Change is often a process that is difficult for teachers (Guskey, 1989; Richardson, 1998). Change requires time, effort, and extra work. Change also brings anxiety and can cause teachers to feel threatened by the proposed change. Since teachers rely on experience when making teaching decisions, they may be reluctant to make changes until they are sure those changes will produce the desired results for their students (Richardson, 1998).

Teacher Change Model

Guskey (1989) proposed a change model that captures the distinctive nature of the change process for teachers. His model presents change as a process or succession of events

rather than a singular event. For change to be successful, Guskey's model postulates four components that must occur in the following sequence: staff development, change in teacher classroom practice, change in student learning outcomes, and change in teacher's attitudes and beliefs.

Staff development. The first stage of the change process for teachers is staff development. Staff development is defined as a systematic attempt to bring about change (Guskey, 1989). Staff development is a purposeful process with the goal of bringing about change in classroom practice that will ultimately lead to changes in learning outcomes. It is important to note that while staff development is presented as the first component in the change process, staff development should not be viewed as a single event. Staff development in this model is ongoing and is available to provide support and follow-up for teachers throughout the change process. Change can create feelings of apprehension, and teachers find it helpful to know that help and assistance is available to them during their implementation of the innovative practice (Guskey, 1989). Teachers also need to be aware of how to readily access any needed assistance.

Change in classroom practice. Following the initial staff development event, teachers begin to change their classroom practice with the implementation of the innovative strategy or practice. This initial change in classroom practice does not ensure that the innovation becomes an enduring component of the teacher's repertoire of strategies, but rather serves as a trial period for the innovation. With student learning as the desired outcome of any instructional innovation, teachers typically reserve judgment concerning the new practice while monitoring the impact of the innovation on student learning. As a result, feedback related to student learning is a critical component in the change process for teachers. Evidence of lasting student

improvement enhances teachers' ability to change and sustain changes in practice over the long term (Guskey, 1989).

Change in student learning outcomes. The art of teaching is undertaken with the goal of impacting student learning. For this reason, any change in classroom practice is measured against this rubric. According to Guskey's model, genuine student success provides the fuel that will boost teachers into the final stage of the change process (Guskey, 1989). Key to lasting change will be the ability of the innovation to demonstrate successful results over the long term for the teacher's students. Evidence of ongoing student improvement will then enhance the teachers' ability to change and sustain changes in practice over time (Guskey, 1989). This record of positive results within the teacher's own classroom is the necessary ingredient leading to significant changes in the beliefs and attitudes of the teachers.

Change in teacher beliefs and attitudes. The final stage of Guskey's Model for Teacher Change is the resulting outcome of the previous stages. Evidence of improvement in student achievement will prompt authentic changes in teacher beliefs and attitudes towards the innovation. It is ultimately these beliefs and attitudes that will sustain the innovative practice in the classroom beyond the initial implementation.

Implications

When examining the change process for teachers through Guskey's Model (1989), several implications emerge. First, change for teachers is a learning process that is largely developmental and experience-based. Changes in teacher's attitudes and beliefs about new practices are linked to changes in student learning outcomes. In short, teachers do not adjust their beliefs about an instructional innovation until they have witnessed its impact on student learning.

Guskey postulated that teachers and students are tied together in the change process in a seemingly symbiotic fashion that is student-centered giving emphasis to student learning.

Secondly, changes in teachers' beliefs and sustained changes in teachers' practice are the result of, rather than the cause of, the innovative practice. A new or innovative practice is introduced in education with the intention of improving student performance. This introduction thrusts teachers into the change process, which often begins with professional development. Teachers' commitment to the new practice, however, is based on experience and evidence of student achievement rather than from staff development alone. Long lasting change for teachers is governed by the ability of the teachers to see the evidence of student achievement first hand (Guskey, 1989).

Social Constructivism

Because the change process for teachers is largely dependent upon student learning outcomes, an examination of learning theory and pedagogy related to learning theory is appropriate. The impact of the change process for teachers is not isolated to the internal aspects of human behavior. The impact also affects the application of learning theory and pedagogy. Vygotsky (1978) provided the foundational understandings about learning for this collective case study in his theory of social constructivism. Social constructivism is a theory of learning that emphasizes social interaction in the learning process and provided the basis for studying the connections of change in teacher pedagogy and student learning. Inquiry-based learning is the favored teaching methodology from the constructivist perspective, whereby the student creates understanding by building on information gained from prior learning experiences. Often this knowledge is facilitated through questioning. Learning from the constructivist viewpoint is greatly influenced by the culture and social context in which the learning occurs. Vygotsky's

theory differs from other learning theories in that social constructivism recognizes the inquiry-based, collaborative learning process as the driving force behind the development of learning as opposed to other frameworks that place primary emphasis on learner's development as the prerequisite for learning (Duelen, 2013).

A primary component of social constructivism is the notion of the zone of proximal development. Vygotsky defined the zone of proximal development as "the distance between the (child's) actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 131). The challenge for the instructor in the constructivist classroom is to create a social context that will facilitate learning within each student's zone of proximal development. This is often accomplished through a process known as scaffolding, where the teacher or more capable peer engages with the learner where skill gaps occur and facilitates learning through the problem solving process (Duelen, 2013; Kingsley, 2011). Scaffolding places the constructivist teacher in the role of facilitator, or "guide on the side" rather than the traditional teacher centered role of "sage on the stage" (Kingsley, 2011, p. 320). With this constructivist teaching methodology, students construct knowledge through these social interactions with more capable peers or adults rather than simply receiving and memorizing information from an instructor presentation.

When providing scaffolding, the instructor or peer provides support to learners within the zone of proximal development (Vygotsky, 1978). As the student progresses, scaffolding is gradually decreased until the learner demonstrates mastery of the skill independently. As the student moves into a new zone or proximal development, scaffolding at the new level is

introduced (Stavredes & Herder, 2013). Progressing through this repetitive cycle with the appropriate amount and type of scaffolding is how learning occurs.

Scaffolding is a teaching technique where an instructor or peer provides support to learners within the zone of proximal development (Vygotsky, 1978). Facilitating this cycle with the appropriate amount and type of scaffolding is the challenge for the instructor. Scaffolding can be provided in four ways, depending on the learning task and the needs of the learner (Hannafin, Land, & Oliver, 1999). Procedural scaffolding in the case of preparation for online learning would provide guidance to students in the use of technology and how to access online materials (Stavredes, 2011). Metacognitive scaffolding provides support for the student's thinking processes and how the learner manages their own learning. Instructors who provide conceptual scaffolding offer students assistance and prompts for the ideas to consider in the learning process. Finally, strategic scaffolds provide a "just-in-time" strategy for the completion of specific learning tasks (Stavredes, 2011).

Blended learning brings about a fundamental change in the educational setting and social context for learning with the introduction of the online component. This change in the learning environment provokes questions about how learning can be facilitated in the new online social context. This hybrid learning environment requires pedagogy that can bridge the activity from the traditional classroom with the online component (McGee & Reis, 2012).

Hannun, Irvin, Lei, & Farmer (2008) suggested that learner-centered pedagogy with online instruction produced positive results when utilized in rural K-12 settings. Enonbun (2010) suggested that the emergence of Web 2.0, interactive tools such as blogs, podcasts, social networks and virtual worlds now enable educators to facilitate knowledge construction within the online component of blended learning. Legg et al. (2009) found constructivist learning

principles to be appropriate for online nursing education with adult learners. Girvan & Savage (2010) found that learners were able to construct knowledge through the use of a virtual reality site designed for the training of educators. Gayton (2013) found that constructivist principles could be applied to adult learning through the integration of social media into classroom instruction. Keengwe & Kang (2012) found that the use of constructivist principles in blended learning increased the effectiveness of teacher preparation programs.

Although research suggests that hybrid or blended learning environments could provide the social context needed to support learning in higher education settings (Duelen, 2013), a gap in the literature remains with regards to blended learning in high school settings. With the bulk of available research supporting constructivist pedagogy related to the online components of blended learning with adult online learners, questions arise about how these principles might be applied in secondary school settings.

Community of Inquiry

Building on constructivist principles, Garrison, Anderson, and Archer (2000) developed the Community of Inquiry Framework for online learning. This process model for online learning promotes both collaboration and constructivist learning. Constructivist learning occurs, according to the framework, in a collaborative community rather than through individualized independent online study. The framework promotes an educational experience that supports higher order learning rooted within a learning community comprised of instructors and students (Garrison & Akyol, 2013). Such a community includes both independence and interaction. Central to the framework are three components referred to as presences: teaching presence, social presence, and cognitive presence. Although each presence is unique and separate, they are

interdependent with overlapping influences on each other as well as on the learning environment (Garrison & Akhol, 2013).

Social presence. Social presence is defined as the ability of learners to project themselves socially and emotionally into the learning environment (Garrison, Anderson, & Archer, 2010). Garrison (2009) further developed the definition of social presence by clarifying that participants in the learning group are able to identify with the group, communicate purposefully in a trusting environment, and develop relationships. Students perceive greater feelings of social presence when they are able to identify with the learning community, can communicate in a purposeful and trusted environment, and are able to develop interpersonal relationships (Garrison, 2009). Social presence is characterized by open communication, affective expression, and the development of relationships (Stenbom, Hrastinski, & Cleveland-Innes, 2012). In effect, social presence is a collection of social behaviors in an online environment that provide the social interactions needed for learning to occur.

Studies examining social presence have produced significant findings. Social presence is linked with learning outcomes as well as student satisfaction with the overall learning experience (Garrison & Akyol, 2013). Kim, Kwon, and Cho (2011) found that both media integration into instructional content and instructor quality are predictors of social presence and learner satisfaction. While interactions between individuals in the online learning environment do predict social presence, interaction alone does not forecast learner satisfaction (Kim, Kwon, & Cho, 2011). Additionally, strong social presence is linked with increased retention rates in course enrollments (Garrison & Akyol, 2013). These findings underscore the vital role played by the instructor in facilitating greater social presence through media integration and the provision of sound instruction with supportive interaction.

Kear (2010) noted that a lack of social presence creates challenges for students, particularly in the area of authentic communication. Standard text-based online communication can promote an atmosphere of isolation and disconnectedness that inhibits social presence. Students suggested the inclusion of member profiles in the course design as one method to promote students' knowledge of one another. Additionally, students reported synchronous communication tools as a means to facilitate social presence.

Teaching presence. While all participants bear some responsibility for the establishment of a vibrant social presence in the online learning environment, instructors have the added duty to establish an effective teaching presence (Lowenthal, 2010). Teaching presence includes the design, facilitation and direction of cognitive and social processes leading towards learning outcomes (Garrison, Anderson, & Archer, 2010). Instruction is provided through a discovery-based relationship (Stenbom, Hrastinski, & Cleveland-Innes, 2012) where direct instruction is minimized. Teachers facilitate discussion and discovery through interaction and dialogue. Teaching presence impacts students' perceptions of overall satisfaction, perceived learning effectiveness, and sense of community (An, Shin, & Lim, 2009; Garrison, Anderson, & Archer, 2010; Gorsky, Caspi, Antonovaky, Blau & Mansur, 2010). Teaching presence is also linked to student acquisition of knowledge (Paechter, Maier, & Macher, 2010).

Perhaps the most important characteristic of teaching presence is the mitigating effect the presence has on both cognitive and social presences (Garrison & Akhol, 2013). The teacher, through teaching presence, serves as a moderator for cognitive presence and cultivates the development of effective social presence. This is accomplished through a host of teaching behaviors such as interaction, course design, and timely feedback.

Cognitive presence. Cognitive presence is the extent to which learners are able to construct and confirm meaning through sustained reflections and discourse (Garrison, Anderson, & Archer, 2001). Effective cognitive presence requires intellectual engagement from both the instructor and learner that occurs in a reciprocal relationship (Stenbom, Hrastinski, & Cleveland-Innes, 2012). Cognitive presence is evidenced by a problem solving approach to meaning construction, and is composed of four major phases: the triggering event, exploration of the problem, construction of a solution, and finally testing the solution. Meaning construction begins with a triggering event that typically highlights a problem to be solved. It is important to note that the triggering event is customarily engineered by the instructor through an effective teaching presence. The triggering event is then followed by an exploration of relevant information related to the problem. Information gathered is then considered with the goal of creating a possible solution. Finally, the solution is tested and revised if needed. Throughout the learning process, interaction and reflection are key elements.

Community of Inquiry and K-12 Learning

The Community of Inquiry framework is broadly considered a valid lens for viewing the learning process (Diaz, Swan, Ice, & Kukpczynski, 2010; Garrison, Cleveland-Innes, & Fung, 2010). Although the community of inquiry was originally developed as a tool for studying computer mediated instruction in higher education settings, the application of the framework has expanded to include both online and blended learning formats (Garrison & Vaughn, 2008; Garrison, Anderson, & Archer, 2010). Stenbom, Hrastinski and Cleveland-Innes (2012) applied an adapted form of the framework to study social, teaching and cognitive presence with K-12 students receiving math coaching through a technology mediated learning environment. Their

experiences suggested that the Community of Inquiry framework can be applied to various forms of blended learning as well as with students outside the higher education arena.

Summary

The complex nature of blended learning, combined with the limited research conducted regarding teaching and learning in this unique environment, resulted in the need to draw on multiple sources when developing the theoretical foundation for this study. Vygotsky's work (1978) provided the basic lens through which learning is viewed. According to Vygotsky, Social constructivism emphasizes social interactions as paramount in the learning process. As a result, learning occurs as the student creates knowledge by building on information gained through prior learning experiences within the social context. Learning is a collaborative process where students learn from their interactions with an adult or more capable peer. The learning context for blended learning includes an online learning component that requires a different approach to collaboration and social interaction that can be achieved in a traditional classroom. The Community of Inquiry Framework for online learning proposed by Garrison, Anderson, and Archer (2000) is a model that is aligned with constructivist learning theory and outlines how to promote collaborative learning in the online environment. The instructor supports the students' educational experience through the teaching, cognitive and social presences. Implementing blended learning for the first time challenges instructors to make significant changes in their traditional teaching practice. Guskey (1989) proposed that teachers experience a unique change process that links enduring changes in the beliefs and practices of teachers to evidence of student learning. Guskey's Model for Teacher Change outlines the developmental stages that teachers progress through when experiencing change. This model provided the focus for

examining the changes experienced by the instructors as they transitioned from traditional to blended learning instruction.

Related Literature

The related literature presented in this section includes an overview of blended learning, best practices for blended learning, and a summary of the Sloan Consortium's Quality Framework for online learning. Due to the emphasis on social interaction in the learning process outlined in social constructivism (Vygotsky, 1978) and the unique relationship between instructor and student presented in the Community of Inquiry perspective (Garrison, Anderson, & Archer, 2000), research related to both the instructor and student experiences is included in this section. The section concludes with a review of two studies highlighting the adjustment experiences of first time instructors of blended learning at the college level.

Blended Learning

Technology-enhanced learning has become increasingly available at institutions of higher education (Ugur et al., 2011) and is emerging in K-12 settings. Online learning began largely as a distance learning opportunity where the majority of instruction occurred over the internet, but has now evolved to include a variety of delivery methods. Foundational studies in higher education as well as emerging literature from the secondary levels of K-12 education show comparable achievement results when comparing face-to-face instruction with fully online and blended learning methodology (Cavanaugh et al., 2004; Chiero & Beare, 2012). Additional reported benefits have included expanded course offerings, flexibility in schedules for instructors and students, credit recovery options, and increased access for students in rural areas (Picciano et al., 2012). The benefits of online and blended learning documented in higher education as well as

the developing reports of applications with younger learners have fueled the migration of such programs into K-12 settings. De la Varre, Keane, and Irvin (2011) cited a benefit for the use of the hybrid learning model in meeting the needs of small rural high schools struggling to offer advanced courses and attract qualified teacher. The addition of blended learning options afforded access to advanced courses and enabled the schools to meet students' academic needs in a cost-saving process.

The use of technology is growing in K-12 education. Integration of technology in the school setting ranges from the use of computers in the traditional brick and mortar classroom to various forms of online learning that occurs both within and outside the traditional classroom. According to the National Center for Education Statistics (Zandberg & Lewis, 2008) student enrollment in some form of technology enhanced coursework grew 65% during a two school-year period from 2002-2005. By 2007-2008, more than a million students in K-12 education were enrolled in online coursework (Picciano & Seaman, 2010). This trend is expected to continue with some predicting that nearly one fourth of all secondary school courses will be offered online (Picciano & Seaman, 2010). States such as Alabama, Idaho, Florida, Michigan and Virginia have now adopted online learning requirements impacting graduation for high school students (Watson, et al., 2011). This shift in practice underscores the importance of understanding the experiences of those participating in blended learning courses as instructors as well as students.

Blended learning is an instructional format comprised of learning situations that combine customary fact-to-face instruction with instruction delivered via the internet (Chandra & Fisher, 2009; Ugur et al., 2011). Face-to-face instruction is the term used to describe traditional classroom instruction within a standard classroom environment. Typically with face-

to-face instruction, both the instructor and students are present within the classroom environment where instruction is presented and responses to the content are made. In contrast, the term blended learning refers to learning that takes place partially over the internet (Means et al., 2010). Blended learning situations differ from traditional instruction through the use of online tools to communicate, collaborate, publish work, and extend learning time (Pape, 2010). In contrast to traditional distance learning programs, blended programs retain some face-to-face components for instruction. Blended learning can be flexible with regard to time utilizing either synchronous or asynchronous approaches. Synchronous programs structure the instruction so that exposure to content occurs in real time either in person or via technology such as the internet (Means et al., 2010). Tools such as video conferencing, webcasts, chat rooms, and classroom internet use assist in creating synchronous blending learning environments. Asynchronous formats allow for time differences between the presentation of instruction and the student's response to the content (Means et al., 2010).

Beyond the physical components that define where and how blended learning is delivered, Graham and Robison (2007) examined three elements of blended learning that relate to the purpose for this instructional methodology. They noted that blended learning can be described as enabling, enhancing, or transformative. Blending learning options from the enabling category intend to increase access to education or provide convenience to the learner. Examples might include programs that enable students in geographically remote areas to enroll in courses, or programs designed for nontraditional students that provide flexible scheduling. Enhancing blends are designed to increase active learning and often accomplish this through combining the most engaging features of both traditional classroom instruction and technology enhanced online instruction. Transformative blended learning environments address specific

pedagogy aimed at making foundational change in the way learning occurs. Ultimately, blended learning provides opportunity to combine some or all of these elements in the learning experience.

Best Practices for Quality Blended Learning

With the advent and expansion of online learning in higher education, models have been developed outlining the characteristics of quality online learning. Although this research is clearly aimed at higher education, the movement to include forms of online learning in K-12 settings prompts questions about the use of such frameworks to guide K-12 implementations.

Shelton (2011) reviewed 13 paradigms for quality online instruction designed for higher education. Shelton found several common themes in her review of the literature. The most prominently noted indicator for quality was institutional commitment, support, and leadership. This was followed by teaching and learning with an emphasis on teacher quality and pedagogy. The third most cited theme in her research was support for faculty and students.

The Sloan Consortium Quality Framework

The Sloan Consortium Quality Framework and the Five Pillars model addresses quality indicators for learning environments (Moore, 2011). The Sloan Consortium is a group that seeks to establish benchmarks and standards for quality in online instruction that promote continuous improvement through their framework. The five principles of quality outlined in the framework are learning effectiveness, cost effectiveness and institutional commitment, access, faculty satisfaction, and student satisfaction. Laumakis, Graham, & Dziuban (2009) suggested that this framework may be applied to learning environments such as blended learning that include both

online and face-to-face learning. In the sections that follow, the five pillars are defined and relevant research related to each area is presented.

Learning effectiveness. Learning effectiveness is at the heart of any educational endeavor. Learning effectiveness in the online or blended learning environment has been defined as learning outcomes that meet or exceed the standards and outcomes typical for traditional learning environments (Moore, 2011). In other words, learning that includes an online component should be at least as effective as learning that occurs in traditional instructional environments (Picciano, 2009). This fundamental benchmark for quality according to the Sloan Consortium's Quality Framework includes several components (Moore, 2011). At the foundation of learning effectiveness is the establishment of a community of inquiry for students in the online learning environment. Within the community of inquiry, active learning and facilitates interaction with relevant curricula (Moore, 2005).

Wegmann & Thompson (2014) suggested that quality interactions can enhance learning in both the online and traditional classroom. Purposeful interaction between students and instructors is vital (Moore, 2011). In the blended learning environment, interaction is beneficial in both the online and face-to-face components of learning (Shea & Bidjerano, 2009). Wegmann & Thompson (2014) note that students interact in multiple ways within blended learning environments. Initially, students interact with themselves through their own thinking process. Students interact with the content as they complete assignments. Interactions with peers occur through both face-to-face and online encounters. Finally, students interact with the technology platform utilized to deliver the content.

Course design is another best practice for promoting learning effectiveness. While blended learning courses are instructor led, effective online instruction is based in pedagogy that

aligns with a student – centered; constructivist methodology where trust and community are built. Constructivist methodology decreases the instructor's in direct instruction while adding inquiry based problem solving in its place.

Faculty satisfaction. Teaching is the core component of education. Faculty satisfaction plays a role in teaching that is worthy of consideration according the Sloan Pillars of Quality (Moore, 2011). Faculty satisfaction can be measured through reflection and whether or not they will teach blended learning again. In quality programs, faculty members contribute to the development of online programs and benefit from teaching online courses. Faculty satisfaction is impacted by the degree of technical support and training they receive in preparation for online teaching. Best practices for promoting faculty satisfaction include training, the implementation of best practices, capitalizing on the efficiencies of technology, and incentives such as ties to promotions for participation in technology enhanced teaching.

Student satisfaction. Discussion and interaction between peers as well as student to instructor interactions are major contributors to student satisfaction. Student satisfaction is also impacted by students' experiences with support services such as advising and orientation and preparation for online learning. Learning experiences that match students' expectations enhance student satisfaction. Student satisfaction is tied to the preparation for the incorporation of the online component of the learning process (Moore, 2011).

Cost effectiveness. While long term online learning programs provide cost savings to school divisions, initial start-up costs can be a barrier to program implementation (Picciano et al., 2012). Many costs associated with online learning programs must be frontloaded with a large initial investment from the learning institution. Expenses connected with technological infrastructure and equipment can be prohibitive. Some divisions cannot afford this initial

expense and do not have the depth of resources required while waiting for a return on that initial investment (Niemic & Otte, 2009). Ongoing expenses must also be considered. Computers, one small aspect of the online learning environment, tend to have a life cycle of only three years (Chandra & Fisher, 2009) requiring budgetary planning for replacement cycles for expensive technology. Added funding concerns are generated from outdated policies that link school funding to attendance which is often measured by the amount of “seat time” that students spend in the traditional brick and mortar school setting (Niemic & Otte, 2009).

Access. The availability of online instruction enables schools to offer courses that otherwise may be inaccessible to students. This is particularly true in small rural school divisions (Picciano & Seaman, 2010). Expanding course offerings to include Advanced Placement courses or unique courses where student enrollments are small can be challenging due to prohibitive costs when hiring staff and providing classroom space in the traditional manner. In other cases, teacher shortages in the critical areas of math and science have created fierce competition for hiring among school divisions that frequently leaves small rural divisions without needed staff. In these situations, online courses have become an attractive option for both students and school leaders in rural districts.

Online learning provides flexibility for both the school division as well as the student (Graham & Allen, 2009). The menu of options for course delivery enables school leaders to choose from a continuum ranging from offerings purely online, blended or hybrid formats, to the traditional face-to-face format. This array of options diminishes the impact of customary constraints produced by limited classroom space, teacher shortages, and strict instructional time schedules. Online course offerings reduce scheduling conflicts and enable schools to meet the diverse needs of learners. Course completion can be measured by content mastery with fewer

concerns for adherence to arbitrary calendars or daily time schedules. Options for both accelerated and extended learning time can be made available based on students' needs. Blended learning provides students the advantage of access to both face-to-face and computer mediated instruction within the same course. Schools also note increased flexibility in how they are able to utilize space and personnel as a result of reduced demands for physical classroom space and greater choice in how teaching staff is used (King, 2009).

Perceptions of Blended Learning

Perceptions play a role in the success of any transition or new innovative practice, and the implementation of blended learning is no exception. Studies of the perceptions of both students and instructors in higher education settings reveal the role perceptions can play in the implementation process. Due to the limited available literature regarding the perceptions of high school students and teachers, the literature reviewed here primarily presents the perceptions of instructors and students at the college level. This research provides a frame of reference for the exploration of the perceptions of high school instructors of blended learning courses.

Instructor perceptions. The importance of faculty perceptions cannot be overlooked in the online teaching environment (Grgurovic, 2011). Teachers' beliefs and perceptions are primary ingredients in the recipe of decision making regarding classroom practice and instruction (Mahdizadeh, Biemans, & Mulder, 2008; Palak & Walls, 2009). Teachers' attitudes toward e-learning environments are influenced largely by their feelings about computer and internet use (Mahdizadeh, Biemans, & Mulder, 2008). While teachers display positive attitudes regarding technology use in general, their instruction often falls short of the integration needed to provide learner centered instruction in an online learning environment (Niemic & Otte, 2009). Even in technology rich environments, positive attitudes and increased access to technology may not

translate into changes in teacher practice regarding instruction. Teachers use technology predominantly for administrative purposes (Palak & Walls, 2009) or for one directional dissemination of information (Comas-Quinn, 2011).

Although, overall faculty perceptions related to blended learning are positive (Napier, et al., 2011), several themes of significance beyond the technology emerge in the literature. Perceptions related to time management are noted in several studies. Instructors involved in various forms of e-learning often report a lack of time to master the use of technology at a level that enables integration into online teaching as well as the complexity of blended instructional process as barriers to effective instruction (Comas-Quinn, 2011; Ocak, 2011). Instructors of blended learning courses report that effective management of time both in and out of class impacted their success (Napier et al., 2011). Course design also emerged as a component of staff perceptions. Original blended learning course design and traditional course redesign to accommodate the blended format were perceived as challenging to instructors (Napier et al., 2011). Finally, Napier et al., (2011) found the perceptions faculty had in the process of transitioning from traditional instructional delivery methods to blended learning expressed less positive feelings about their experiences than veteran instructors.

Bair & Bair (2011) conducted a collaborative self-study of their experiences as online instructors. Data collected through their own reflections on their teaching, student feedback, course evaluations, and peer observations were analyzed for salient themes. The analysis was informed by both the Community of Inquiry framework (Garrison & Vaughn, 2008) and the Sloan Consortium's Five Pillars of Quality (Moore, 2005). Their findings suggest a paradoxical scenario that online instructors must navigate. Related to social presence, the use of technology increased opportunities for individualized interaction online, however, both instructors reported

feelings of isolation despite the increased interaction. Some face-to-face sessions were suggested as a means to mediate the need for some face-to-face contact. The instructors also found public and private nature of online communication to be a challenge. While much communication occurred through private, individual emails, the instructors were cognizant of the fact that communication intended to be private could at any point be shared with or forwarded to others. With regard to cognitive presence, the instructors noted that online text-based communication facilitated and increased engagement by providing flexibility for the timing of student responses. This flexibility, however, reduced the spontaneity that occurs in a traditional classroom where discussions occur in real time. Flexibility was also noted to uniquely impact teaching presence. While students had much flexibility in how and when they engaged in the online course, the overall structure of the course required more structure than a traditional course. Instructors experienced less freedom to take advantage of teachable moments and make adjustments to the course based on how students responded to the content. Finally, the technology itself contributed to the paradoxical teaching environment. Technology was found to streamline tasks in many areas, but instructors felt their workload increased overall as they were continually expected to learn to use new applications and tools.

It is important to note that although instructor perceptions play a role in instructional decision making, such perceptions are self-reported and are not always the reality in the classroom. Examples have already been provided noting the disparity between perceptions related to technology and actual technology integration. Inconsistencies in instructor perceptions and classroom reality with regard to the application of constructivist teaching methods are also documented in the literature. Savasci & Berlin (2012) documented disconnect between teachers' reported beliefs and the actual implementation of constructivist principles in the classroom.

Student perceptions. Research examining a variety of blended and online learning experiences reveals overall positive student perceptions. Kenney & Newcombe (2011) conducted a pilot study of a small college's transition into a blended learning format for a human development course. Their research found 75% of students surveyed felt the blended learning approach enhanced their learning with 90% expressing overall satisfaction with the convenience of the blended delivery. Greater engagement in learning was also reported by 64% of students surveyed. Lopez-Perez, et al. (2011) studied the perceptions of students participating in a general accounting course delivered through a blended format. Their results showed students perceived a high level of perceived utility, motivation, and satisfaction with their experience.

Additional studies noted specific factors that positively impacted students' perceptions of blended and online learning. Ozkan & Koseler (2009) found that student attitudes towards technology, perceived quality of the instructor, system quality, content quality, and support from others produced positive perceptions of blended learning. Their findings reveal a statistically significant relationship between the attitudes of learners and perceived satisfaction with e-learning. In another case, students reported flexibility, interaction with professor, independent learning, authenticity, learning style, and social presence were contributing factors to their positive blended learning experiences (Napier et al., 2011). Wu, Tennyson, & Hsia (2010) found students' perceived learner satisfaction was impacted by a combination of cognitive, technical, and social environmental factors with student interactions playing a significant part in the climate of the learning environment. Banerjee (2011) found that learning effectiveness and student satisfaction were important components to the success of transitioning to blended learning. Students further reported that interactivity and connectivity with peers was important.

Fetzner (2012) provided an alternate perspective and noted that existing research regarding student perceptions of blended learning overlooked the views of those students who had attempted but were unsuccessful with online learning environments. In her study at the community college level, students who did not experience success with online learning environment were surveyed. Their perceptions about their lack of success related primarily to workload and deficiencies in time management skills that were needed to address the workload. Students reported falling behind in their assigned work and struggling to regain and maintain proper pacing for the course. Surprisingly, over half of the students surveyed indicated they would likely enroll in an online course again despite their reported difficulties.

Voegelé (2014) studied students' perceptions of social, teaching, and cognitive presence related to blended learning effectiveness. Students reported on the importance of interactions with peers as well as greater comfort with expression in a learning environment that encouraged exploration and critical reflection. Increased opportunities for meaningful interaction emerged as a common theme in student data. Students also noted the importance of integration of the face-to-face and online components of the course through aligned pedagogy. Learning activities that were consistently connected between the face-to-face and online segments were perceived to enhance learning. Students perceived the optimum blended learning environment to be purposefully integrated across formats and supportive of inquiry in both settings.

Studies specifically examining the views of high school students related to any form of e-learning are scarce in the literature. A single study of high school ninth graders' views revealed "highly positive" perceptions of blended learning biology course (Yapici & Akbayin, 2012).

Kim, Hisook, & Karimi (2012) studied the perceptions of high school students enrolled in

courses through a public online charter school. The results revealed that 56% of students surveyed perceived online discussion as a benefit to their academic success.

Preparedness for Blended Learning

While perceptions play an important role in the day to day teaching and learning process, these perceptions also point to areas of need related to instructor and learner readiness for participation in blended learning (Moore, 2011). Themes such as time management, technology integration (Pape, 2010), and learner centered pedagogy (Mahdizadeh et al., 2008; Palak & Walls, 2009) come to the forefront as potential prerequisites for successful blended learning experiences. Proper training is necessary for staff who transition from traditional to blended instructional methodology (Napier et al. 2011). Instructor training and student identification processes are strategies that can promote success in blended learning programs.

Instructor preparedness. A trained, skilled teacher is the cornerstone of the learning environment whether traditional, online (Moore, 2011), or blended. The neglect of teacher training is a noted shortfall made by schools implementing online learning programs (Meyer, 2014). Teacher learning is an important factor in student learning (Archambault et al., 2010; Buczynski & Hansen, 2010). With concerns for student learning at the center of educational change, Bakkenes et al. (2010) suggest that any innovative educational practices such as online learning programs are at risk when teachers' learning is not considered as a planned part of the implementation process. Teachers of technology enhanced courses are burdened not only with the mastery of content knowledge, but are also expected to deliver that content effectively in an environment mediated by technology. Without proper professional development, instructors are less able to provide quality instruction in the online learning environment (Bigatel, Ragan, Kennan, May & Redmond, 2012; Kenney et al., 2010; Pape, 2010; Wicks, 2010).

The provision of effective professional development related to various forms of e-learning is a complex process comprised of more than an event such as a workshop or lecture (Stein, Ginns, & McDonald, 2007; Wilson, 2012). Teaching in an online learning environment represents significant change for many experienced instructors, and such change often does not occur in a linear or sequential fashion (Postholm, 2012). Training to address these needs should occur over time and incorporate a variety of learning options for teachers. The opportunity for hands-on learning within the authentic teaching context provides an ideal learning environment for instructors (Stein, Shepherd & Harris, 2011; Stein et al., 2007). Training within established relationship groups such as content departments or grade level teams is preferable to large whole group sessions. Gains with specific skill work are achieved most effectively from even smaller individualized one-on-one training experiences (Wilson, 2010). Palak & Walls (2009) found that embedding learner centered pedagogy within skill specific training increases the instructor's ability to integrate skills in areas such as technology use in ways that are student-centered. Shaw (2009) highlights the importance of training for faculty that will allow staff to build on pre-existing skills and expertise while developing new skills needed for the unique online learning environment. Staff will naturally rely on traditional practices that may or may not transfer successfully into the non-traditional setting (McQuiggan, 2012). Training in how to adapt and modify existing skills can be beneficial.

Calderon, Ginsberg, & Ciabocchi (2012) found that professional development should specifically include the development of pedagogy to support the creation of a community of learners in the blended learning environment. Instructors must also be taught how to facilitate interactions between faculty and students as well as student to student interactions (Bigatel, et al., 2012).

Meyer's (2014) meta review of the literature examining faculty preparation and training noted that development for instructors in higher education is evolving from training that simply encouraged the addition of technology tools in traditional classroom instruction to preparation for instruction in the online classroom. Meyer's review brings to light several shortcomings related to faculty development noted in the research. Current research lacks focus on the pedagogical shifts and challenges unique to the online learning environment. Furthermore, existing research shows that faculty development tends to take a "one size fits all" approach with little consideration to the learning needs of the faculty attending the training. Finally, rigorous program evaluation is needed to determine the effectiveness of current faculty development programs.

Student preparation. Preparation for learning experiences mediated by technology can enhance the learning experience. While some students are reluctant to enroll in blended or online courses due to apprehension related to computer skills (Allen, Omori, Burrell, Mabry & Timmerman, 2013), still others embark in online learning experiences without the needed prerequisite skills for success (Stavredes, 2011). Relevant prerequisite skills for online learning include basic computer literacy, time management and strategies for planning monitoring, and evaluating their work in the online classroom. Considering that students' satisfaction with online learning experiences is tied to the preparation for the new learning environment (Moore, 2011), the importance of preparation for online learning is noteworthy.

Student preparation for blended learning deals largely with the acquisition of technology and time management skills, and the assessment of the student's ability to be self-directed in learning (Kemmer, 2011). Students participating in blended learning experiences reported surprise with the level of self-discipline and time management needed to succeed in

blended learning (Napier et al., 2011). Faculty from this same study as well as others (Archambault et al., 2010; Roblyer, Davis, Mils, Marshall, & Pape, 2008) reported a need to assess potential students ahead of time to determine their aptitude for success in the blended learning environment. In the absence of formal assessments, potential students should at least be made aware of the demands for self-direction and responsibility with blended learning (Napier, et al., 2011). Holley and Oliver (2010) have developed a method for mapping students' risk for inability to engage in a blended learning environment suggesting that not all students are a match for blended learning. Jones (2013) found that requiring an orientation for first time participants in online or hybrid courses resulted in students feeling better prepared for their online and hybrid course. The addition of the student orientation reinforces realistic expectations and afforded an opportunity for students to practice using technology (Archambault et al., 2010).

Instructor and Student Roles

The advent of blended learning has decreased the amount of face-to-face instructional contact time while adding an online component to learning. The shift from traditional face-to-face instruction to blended learning changes the social context of the classroom for both the learner and instructor. This new social context for learning has created the need for new roles for both the instructor and learner (Barbour, 2013; Zhu, Valcke, & Schellens, 2010). Roles are a collection of behaviors that occur within a social group, organization, or society, and are typically learned within the social context (Burkle & Cleveland-Innes, 2013). These instructor and learner behaviors are now significantly influenced by technology which has advanced to allow the social component to be included in education in novel ways (Gaytan, 2013; Legg, et al., 2009). As the roles of both instructors and learners evolve in technology enhanced learning

environments, the relationships between learner and teacher are transformed (Anastasiades et al., 2007; Zhu et al., 2010).

Instructor roles. The International Association for K-12 Online Learning has developed standards of quality for online teaching (Pape and Wicks, 2009). This document not only highlights the importance of the teacher in the online learning environment, but also defines four broad categories that encompass the new roles effective online teachers must play. Those categories include guiding and personalizing learning, communication, assessing, grading and prompting, and developing online course content and structure (Pape and Wicks, 2009). The changing roles of faculty related to blended learning is noted in the literature (Burkle & Cleveland-Innes, 2013; Ocak, 2011; Shaw, 2009). Instructors too will need to craft and polish new skill sets for the online components while maintaining skills needed to teach in the traditional face-to-face forum (Ocak, 2011). At the foundation of the instructor's changing role is pedagogy. The shift from teaching in the traditional classroom setting to any form of technology enhanced learning requires teaching practice to move away from the teacher centered model in favor of learner centered teaching strategies (Burkle & Cleveland-Innes, 2013; McQuiggan, C., 2012; Kenney & Newcombe, 2011; Ocak, 2011; Shaw, 2009; Ugur et al., 2011). An alignment of beliefs with the learner centered constructivist paradigm complements technology enhanced teaching by allowing the teacher to serve as facilitator or guide in the learning process rather than one who simply transmits knowledge (Baylen & Zhu, 2009). The blended learning environment challenges instructors to connect with learners through technology and create an online learning environment that promotes engagement and collaborative work. In particular, blended learning instructors will need to be skilled in using constructivist strategies that will encourage interactivity and collaboration in the online environment. The instructor's

role becomes that of the moderator or facilitator of online interactions and discussion rather than the content expert who supplies knowledge (Zhu et al., 2010). In particular, teachers will need to be skilled in using instructional strategies that will encourage interactivity, collaboration, and authentic engagement in creating meaning within the online environment (Legg, et al., 2009; McGee & Reis, 2012).

In addition to the pedagogical shift, instructors new to blended learning will be expected to utilize a host of technology tools to facilitate learning in the online learning environment. The advent of Web 2.0 tools introduced a host of interactive tools into the online teaching learning environments making dynamic and collaborative learning communities (Enonbun, 2010). While the evolution of tools such as blogs, podcasts, and social networks may be largely responsible for making interactive blended learning a reality, this process has created a steep learning curve for instructors who are digital immigrants rather than digital natives (Enonbun, 2010; Shaw, 2009). Caulfield (2011) notes that the integrating all components of blended learning presents a significant challenge for instructors.

Shaw (2009) noted that all instructors are not adequately equipped for the evolution of instruction towards the blended learning format. Highly skilled teachers in traditional classroom environments often struggle with the transition to their new role. Napier et al. (2011) report that college instructors who are adept in using new tools and possess an openness to shifts in approach have positive impacts on transitions to blended learning in higher education settings. In some cases, however, instructors are not given choices about their teaching assignments causing feelings of resistance and resentment towards changing roles. Resistance to the transition process can prove to be counterproductive to the implementation process. Shaw (2009) noted that resistance is most evident with more experienced faculty. For some

experienced faculty, the addition of the online classroom component can cause veterans to feel like beginning teachers again as they grapple with new instructional practices and technology tools.

Student roles. The blended learning classroom context requires a unique skill set for student learners. First time students experiencing blended learning are expected to manage the adjustment to an online delivery format as well as pedagogical differences in the learning environment (Garrison & Akyol, 2013). Burkle & Cleveland –Innes (2013) report that students must demonstrate a basic level of proficiency with internet and technology use to achieve success in the blended learning environment. Students will also be expected to manage new methods of communication as well as synchronous and asynchronous instruction (Burkle & Cleveland-Innes, 2013). For younger learners, who are likely digital natives, the educational environment is often the last segment of their life to welcome technology. Experiences with technology outside the school setting will undoubtedly support students in their new role as digital learners.

The online component of the blended learning course will require greater autonomy self-direction on the part of the student than the traditional learning environments (Burkle & Cleveland-Innes, 2013; Napier et al., 2011; Shaw, 2009). Acquiring the skills needed to successfully function in the role of online learner is complicated by a lack of opportunity for students to learn these vital skills in an authentic context with the benefit of role models prior to participation in the blended learning experience. Typically, students are left to learn these skills while concurrently completing their first blended learning course.

Instructor and Student Behaviors

Recognizing the change in roles is not enough to support learning. Success in the blended learning environment is contingent upon the changed behaviors in the new learning environment. Instructors must not only learn and apply new behaviors in the blended learning environment, but must assist students in the application of changed learning behaviors as well.

Instructor behaviors. Teaching in the online portion of a blended learning course requires a wider range of skills than teaching in the traditional classroom. Instructors must employ instructional strategies that facilitate student engagement and active participation (Bigatel et al., 2012; Burkle & Cleveland-Innes, 2013). Engagement is encouraged by the provision of support and resources for the learner (Calderon et al., 2012; Moore & Shelton, 2013). Picciano & Seaman (2007) suggest that the maturity levels of learners in K-12 learning environments will require more mediation from instructors than may be needed in higher education settings. Instructors who are able to provide support not only through the scaffolding of course content but also expectations regarding the use of technology create a learning environment more conducive to meaning construction.

Archambault et al. (2010) specifically studied at-risk students enrolled in online education with the goal of determining teaching strategies that would promote success. Six strategies were identified including individualized instruction, professional development for teachers, the provision of support structures for students, an online orientation for students, pedagogy that aligns with instructional practice, and early identification and screening of at-risk students.

Student engagement and participation are also encouraged through opportunities for interaction in both the face to face and online environments. Opportunities for interaction should

be varied and include student to instructor (Bigatel et al., 2012) as well as student to student (Burkle & Cleveland-Innes, 2013; McGee & Reis, 2012). Online discussion forums have been found to be a particularly effective teaching tool for facilitating interactions among students and between students and instructors (Alrushiedat & Offman, 2013; McGee & Reis, 2012). In addition to discussions, feedback can be a critical component for students (Burkle & Cleveland-Innes, 2013). Frequent and prompt feedback regarding student progress enhances student engagement and overall success in the blended learning context. Effective instructors should design learning experiences that are active and process driven. Assessment should be product or project based (McGee & Reis, 2012).

Dipietro (2010) suggests that a second adult in addition to the content area teacher contributes to a quality learning experience for online learners. This adult, known as the course mentor or facilitator, are physically located with the students during some or all of their online learning experiences. Course mentors often assist students with persistence in the course as well as time management and motivation. Adults serving in this role can positively impact student achievement through maintaining frequent contact with the content area teacher (Cavanaugh, 2013) and provide learner centered support (De la Valle, Keane, & Irvin, 2010).

Student behaviors. The dramatic shift in the students' role in the blended learning process requires several distinct behaviors that will promote success. McGee & Reis (2012) found that successful students must demonstrate independence in work, time management, and sound communication skills in the blended learning environment. Holley & Oliver (2010) found that student engagement in blended learning situations is enhanced by their ability to control technology, previous educational experiences, and their ability to manage their learning space. Finally, the importance of self-regulation is highlighted in the research (Ting & Chao, 2013).

Ting & Chao (2013) found that action control, or student's ability to focus on the task at hand rather than giving in to competing tendencies, leads to higher achievement in blended learning courses.

Summary

Blended learning is an innovative instructional methodology that combines traditional face-to-face instruction with online learning. The practice was established in colleges and universities and continues to gain popularity due to the perceived and empirically documented benefits of blended learning programs (Halverson et al., 2011; Means et al., 2010). Most recently, blended learning programs have been implemented with younger learners in high school settings. Some states have enacted graduation requirements that mandate at least one online or blended learning course during the high school years. These transformative steps at the high school level have been taken despite the limited research available concerning blended learning at the high school level. District and school leaders are left to rely on the research conducted with adult learners in higher education to guide their practice.

Reports of student perceptions of blended learning in higher education are generally positive (Kenney & Newcomb, 2011; Lopez-Perez, et al., 2011). Students described their learning experiences as improved by the blended learning format citing flexibility and convenience as contributing factors to their success. Students also valued their connectivity to instructors and peers in the learning process. Interestingly, even students who were not successful with a blended learning course often indicated that they would be interested in attempting another blended learning course.

The perceptions of instructors regarding blended learning are more complex. Broadly, perceptions about blended learning are positive. Instructors report positive feelings about

technology use and demonstrate an understanding of the instructional pedagogy needed to instruct within an online learning environment (Napier et al., 2011). Perceptions don't always mirror reality, however. Disparity was noted in instructor perceptions regarding technology integration when compared with actual classroom usage (Niemi & Otte, 2009). Additionally, some discrepancies were noted in applying the more collaborative teaching approach. Instructors perceived teaching a blended learning course to be more time consuming than teaching through the traditional format. Increases were noted in the time needed to prepare for individual lessons as well as the planning and preparation for overall course design or re-design.

Preparing students and instructors for blended learning experiences is one way to assist in the transition to blended learning. Professional development related to technology, learner centered pedagogy, and time management could benefit instructors preparing to transition to blended learning instruction. Ongoing professional development and support for instructors through hands-on experiences within authentic contexts are preferable to lecture style workshops. For students, preparation should focus on identification of students who are self-directed learners adept at time management.

Blended learning represents a transformative shift in the roles of both the learner and instructor. Students must gain additional skills in self-direction and become more responsible for their own learning. Arguably, it is instructors who must undergo the greatest change in roles. Instructors must adjust their pedagogical approach to instruction to match the context provided by the online environment. Veteran educators accustomed to transmitting information to students as the content expert will have to modify their teaching approach to one that facilitates an environment of collaboration and problem solving.

What remains unknown to date is how the information known about blended learning in higher education settings might apply to blended learning implementations with younger learners. Questions persist about the experiences of high school students and instructors with blended learning. How do high school instructors perceive their blended learning experiences? How are instructors and their students prepared for their blended learning experiences? And how do instructors perceive their respective changing roles in the blended learning environment? What practices in the blended learning environment are perceived to directly impact student learning? This collective case study seeks to answer these questions through an examination of the blended learning experiences of teachers at three high schools in an eastern state within the mid-Atlantic region of the United States.

CHAPER THREE: METHODS

Overview

This qualitative collective case study investigated the transitional experiences of five instructors participating for the first time in a course presented through a blended learning format at the high school level. Grounded in Guskey's Model for the Process of Teacher Change (1989), Vygotsky's (1978) social constructivist learning theory, and the Community of Inquiry framework for online learning proposed by Garrison et al., (2000), this study examined the experiences through individual interviews, a focus group interview, reflective journals, and observations. Analysis of the data was documented with the intent of understanding the successes and challenges experienced by these individuals and providing a voice that articulated the richness of their collective experiences in a cohesive and comprehensive document. This chapter will present a description of the research design, research questions, setting and participants.

Design

This study employed qualitative collective case study design. According to Yin (2009), case study methodology is best suited for research that focuses on contemporary phenomena within real-life contexts. The phenomenon under study here was the adjustment experience of first time instructors of a blended learning course. Blended learning is an instructional delivery method that occurs within a unique context where both face-to-face and online instructional methodologies are utilized. Case study research is an effective methodology for the study of cases such as this, where experiences can only be accurately examined within the naturally occurring context (Stake, 2010; Yin, 2009). Case study research must occur within a bounded

system (Yin, 2009). This case study occurred within a system that was bounded by the location of the cases, the time allotted for course enrollment during the school session, and each teacher's level of experience with blended learning. Data was collected from the participants through semi-structured interviews, one focus group interview, nonparticipant observations, and reflective electronic journals. Exploration of the blended learning experience through the voices of the instructors while immersed in blended learning is most appropriately completed through the case study design. Memoing was the primary strategy employed to bracket the researcher from bias during data collection and analysis. The researcher also declared assumptions that were informed through the literature review.

Research Question

The research question for this study was developed based on the need to illuminate the experiences of first time teachers in blended learning courses at the high school level. Broadly, this study sought to answer the following research question: What are the experiences of first time high school instructors of a blended learning course? The following four guiding questions provided focus for the research:

1. What were the instructor's perceptions of blended learning prior to their involvement in blended learning?
2. What were the preparation experiences of first time blended learning instructors?
3. What teacher role adjustment experiences confront the first time blended learning instructors?
4. What strategies do first time blended learning instructors employ in transitioning themselves and their students to the blended learning environment?

Setting

It is appropriate and in some cases preferable to conduct collective case study research across multiple sites (Creswell, 2013). Blended learning is a unique instructional methodology that challenges the typical conception of the traditional classroom setting (King, 2009; Means et al., 2010). The online components included in the methodology provide virtual classroom environments that extend well beyond the traditional classroom with four walls within a conventional school building. Adding to the complexity of the blended learning setting is the flexibility afforded to both instructors and students regarding the actual time spent teaching and learning in the virtual environment versus the physical classroom site (Graham & Robinson, 2007; Means, et al., 2010). As a result, the sites for this study are described in terms of both the anchor communities and the blended learning environments for the participants. The anchor communities house the traditional brick and mortar school facilities where the participants present and their students might typically receive traditional instruction. These anchor communities also contain the private homes and community based locations where students access the internet to complete the online portions of the course away from their instructors. Two centralized blended learning classroom environments designed to support online work, as well as face-to-face instruction, is included as an integral component of the overall setting for the study.

This study took place within a single school district serving students in three distinct anchor communities with each containing a 9 -12 grade high school. The school division is located in a mid-Atlantic state. Anchor communities have been labeled in terms of their community high schools as High School A, High School B, and High School C to remove identifying information. Students from all three physical sites made up the blended learning

class rosters of the teacher participants. Students were brought to the two centralized classrooms at one school location to complete the face-to face components of blended learning. Students in the centralized location were enrolled math and science courses, housed in one large classroom space, and English and history courses were conducted in a second large classroom space. Students and instructors participated in virtual classroom spaces from their homes, libraries, anchor school sites, or other public places within each of these anchor communities.

High School A is located in a rural community and serves approximately 1,042 students. The on-time graduation rate is 86%. The student body is approximately 43% economically disadvantaged. While internet access is available in the school setting, the rural nature of the surrounding community impacts accessibility to the internet in many homes.

High School B is located in a suburban community serving 1,375 students. The socioeconomic status for the surrounding community is largely middle to upper middle class and fewer than 10% of students qualify for free or reduced priced meals. The on-time graduation rate is 93%. Internet access is readily available within the school as well as throughout the community. Several businesses and restaurants provide wireless internet access to customers creating additional internet access points for students in this community.

High School C is located within a small town and serves approximately 880 students. The on-time graduation rate for High School C is 85%. Over 43% of the student body is considered economically disadvantaged. Although internet access is available in this community, the level of economic disadvantage may impact the ability of some families to have the means to access the internet in the home. Public access to the internet within the community is available, but is limited to the public library and very few business locations.

A central location was provided for the delivery of the face-to-face component of the blended learning instruction. Students and instructors from each of the three anchor sites participated in face-to-face instruction at the centralized location, while the online components of the course were available to students in their homes within each high school community. Students were also able to access the online course content at the centralized classroom location.

Two blended learning classrooms were designed for simultaneous use within the centralized high school site. Each classroom was a large multi-purpose room style facility that had been transformed into a nontraditional classroom space that included round tables with chairs, multiple technology carts containing chrome books, sets of calculators, and other needed school supplies. The rooms were also joined together by a common large foyer where restrooms and snacks were available. The entire blended learning center was equipped with wireless internet.

The setting for this study was selected because it included students and staff from three distinct communities that would provide perspectives from different regions within the school system as well as diversity in the type of community represented. This school division was selected because of the division's support and emphasis on blended learning in the division's strategic plan. Each high school was implementing a similar blended learning instructional arrangement. Conducting research with cases anchored in multiple community settings provided the basis for cross-case analysis (Yin, 2009) of the novice instructors' experiences with the blended learning model.

It should be noted, however, that the technology resources within each community setting differed. Although the face-to-face components of the blended learning instruction occurred at the centralized site for all students regardless of their home high school or anchor community,

the students did not experience the online portions of the course from a level playing field due to the differences in technology resources and internet access available in the anchor communities.

Participants

Participants were selected for the study through purposeful sampling. Purposeful sampling enables the researcher to select participants that will ensure the availability of robust data for collection (Gall et al., 2010; Stake, 2012; Yin, 2009). Participation in this case was limited to five first-time instructors of a blended learning course. Although instructors were to be novices with blended learning instruction, the instructors were also required to be experienced teachers with at least three years of teaching experience. The instructors were also required to have previously taught the assigned blended learning course in a traditional format. The selection of instructor participants in this way ensured familiarity with the content as well as familiarity with traditional teaching methodology. This restriction was intended to reduce the impact of instructor difficulty with learning new content while also learning to work with the blended learning format.

Establishing a pool of instructors who met the established criteria was the first step in the participant selection process. The Personalized Learning Supervisor for the school division where the study was conducted identified fifteen teachers who met the initial criteria for years of overall teaching experience, teaching experience with blended learning, as well as teaching assignments. This group of teachers was then contacted by the researcher via email to determine their willingness to participate in the study. A copy of this correspondence is included in Appendix B. The teacher participant pool was established based on the affirmative responses to the email correspondence. From this pool of fifteen qualified participants, seven responded stating their willingness to participate. All participants were fully informed of the nature of the

research and of their right to withdraw at any time. Written informed consent was gained from each participant.

Early in the data collection phase, the researcher learned that two of the participants' primary responsibilities were administrative rather than instructional. As a result, these participants were excluded from the study. Data collection continued with the remaining five participants.

Table 1 summarizes pertinent demographic information regarding the participants. It is important to note that although there were no qualifying instructor participants from anchor site B, the inclusion of this site in the setting remains relevant to the study since students typically attending traditional classes at the high school within anchor site B were enrolled in the courses taught by the participants. As a result, the participants' online classrooms reached into this anchor site community. The literature on blended learning points to the unique role that instructors assume in their instructional experience (Barbour, 2013; Zhu, Valcke, & Shellens, 2010). While all participants in the study functioned as blended learning instructors, the school division allocated two unique role designations to the instructors based on the needs of the students and staff expertise. The designations represented in the participant sample for this study include Content Specialist (CS) and Academic Coach (AC). These designations are included in with other demographic information in Table 1.

Table 1

Participants

Demographic Information				
Pseudonym	Gender	Ethnicity	Anchor Site Assignment	Instructor Role
Angel	Female	Hispanic	Site C	Mathematics CS
Carol	Female	Caucasian	Site C	Mathematics CS
Holly	Female	Caucasian	Site C	Mathematics CS
Lori	Female	Asian	Site A	Academic Coach
Mary	Female	Caucasian	Site A	Economics CS and Personal Finance CS

Procedures

This section provides an overview of the specific procedures followed while conducting the study. Since the study involved human participants, the approval of an institutional review board (IRB) was necessary prior to conducting the research (Gall et al., 2010). A copy of the approval letter from the IRB can be viewed in Appendix A. After gaining IRB approval, the proper school division representatives were contacted to secure permission to conduct the study within the school division. The researcher served as the human instrument for data collection and analysis for the study. Detailed information regarding the researcher's role, data collection procedures, and data analysis are included in subsequent sections of this chapter.

The Researcher's Role

The nature of qualitative research requires that the researcher play a unique personal role in both the data collection and data analysis portions of the study. Field work (Stake, 2010) required the researcher in this study to devote extensive time with each blended learning instructor personally collecting data through individual interviews, one focus group interview, and nonparticipant observations. Through these personal contacts, the researcher served as the human instrument for data collection (Creswell, 2013; Yin, 2009). The researcher also collected data provided electronically through the participants' reflective journals. Following the data collection, the researcher in this case study analyzed and interpreted all data collected.

Although the researcher is often the "instrument of choice" for data collection (Lincoln & Guba, 1985), care must be taken to ensure that the researcher is objective and findings are free from bias. In this study, the researcher utilized prepared list of interview questions to guide interviews. A prepared protocol was utilized during the nonparticipant observations. Care was taken during each classroom observation to assume a passive presence while observing within the blended learning environment minimizing interactions with participants. The researcher also practiced reflexive journaling and memoing to expose any potential researcher bias.

As the primary instrument for data collection in this study, it is important to document any relevant aspects of the researcher's biography that both inform the researcher's perspective on blended learning as well as those that might provide opportunities for bias to enter into the data collection and analysis process. The researcher brings 30 years of experience in education to the study. Those experiences include public school classroom teaching experiences at the elementary, middle and high school settings. In addition, the researcher currently serves as a school principal in the participating school division. It should be noted, however, that none of

the participants are employed to teach in the school where the researcher serves as principal, and no additional relationship exists between the researcher and participants.

The researcher has had several personal encounters with blended learning that further inform her understanding of this instructional methodology. The researcher has experienced blended learning from the student perspective while enrolled in doctoral coursework. She has also taught several Master's level courses presented in a blended learning format through a state university. Finally, the use of blended learning has been encouraged and implemented on a small scale within the school where the researcher serves as principal. Each of these experiences fueled the researcher's interest in revealing the first hand experiences of novice blended learning instructors.

Data Collection

The accuracy of conclusions drawn in qualitative study is enhanced through triangulation, the collection of data from multiple data sources (Stake, 2010; Yin, 2009). In this study, the data were gathered from multiple sources including nonparticipant observation, electronic reflection journals, individual interviews, and one focus group interview. The data were collected over a nine week period, and from multiple participants. This approach allowed the researcher to gather data through multiple avenues while safeguarding the authenticity and depth of the participants' experiences. All written data collected by the researcher was stored on the researcher's laptop computer that is password protected. A backup copy of all data was saved on a flash drive which has been maintained in a locked file cabinet in a lockable home office space.

Data for each case was collected concurrently throughout the study. Due to the flexibility offered through the blended learning instructional format, instructor schedules varied during the semester. As a result, the order and timelines for data collection varied slightly from case to

case. The data collection began with nonparticipant observations. This allowed the researcher to gain valuable insight into the blended learning context at the outset of the study. The nonparticipant observations were followed by the submission of reflective journals for the participants. Semi-structured interviews were conducted next with the focus group interview concluding the data collection. It should be noted that there was some overlap in the timing of data collection. For example, a semi-structured interview may have occurred before the second nonparticipant observation in one case, but followed the observation in another case. A total of 12 nonparticipant classroom observations were conducted with at least two data collection points for each participant. A total of 10 semi-structured interviews were completed with two interviews. Despite encouragement to complete the weekly reflective journals, each participant provided data in this format only twice. One focus group interview was held at the conclusion of the study. Each form of data collection is described in more detail in the sections that follow.

Semi-Structured Interviews

Interviews provide an avenue for qualitative researchers to garner information from participants with depth and detail related to the research topic (Rubin & Rubin, 2012). Qualitative interviewing is a suitable technique when seeking to determine what participants think about a particular topic, why they engage in a particular behavior, or how a process works (Rubin & Rubin, 2012). The semi-structured interview is a specific type of interview that is designed around a set of questions prepared ahead of time (Wengraf, 2004). These questions are open-ended, however, providing the interviewer the flexibility to explore unplanned questions or issues that may arise from participant's responses to the planned questions (Wengraf, 2004). A responsive interviewing approach (Rubin & Rubin, 2012) was utilized during the interview process. This technique is a dynamic and adaptive method that allows for some modifications

within the process based on analysis of the data collected. Follow-up interview questions were developed based on analysis of initial interview data.

Seidman (2013) encourages the piloting of interview questions prior to the start of research. The initial interview questions developed for this study were piloted with 2 novice blended learning instructors not participating in the study. These novice instructors were asked the interview questions to assure that the questions would elicit the types of data needed to address the research questions. The pilot interview process provided an opportunity to construct revisions to the interview questions had they produced responses that did not correlate with the scope of the study. The contents of the pilot interview were transcribed and analyzed. Based on that analysis, it was determined that the questions did yield responses in support of the research questions for this study. In addition, the interview questions were reviewed by an expert in the field of blended learning who confirmed the suitability of the interview questions.

Standardized Semi-Structured Interview Questions

1. What were your perceptions of blended learning prior to becoming involved in this course?
2. Describe your experiences with the blended learning course.
3. What preparation experiences were you provided prior to teaching the course?
4. How did these preparation activities impact your experience with blended learning?
5. What did you have to do differently to prepare for and teach this course?
6. Do you feel that your students were prepared for the blended learning instructional format? Why or why not?
7. What role adjustments did you experience as a teacher transitioning to the blended learning instructional format?

8. Describe any role adjustments that you observed with your students?

Questions 1 and 2 were designed to elicit information about teacher's perceptions of the blended learning instructional arrangement both prior to and during their experience as instructors. The literature examining instructor perceptions of blended learning indicates that perceptions play an important role in instructional practice (Grgurovic, 2011; Mahdizadeh, Biemans, & Mulder, 2008; Palak & Walls, 2009). Although faculty perceptions of blended learning in higher education have been found to be positive (Napier, et al., 2011), several barriers were also reported to impact instructors' perceived effectiveness. Those barriers include difficulty in mastering the use of technology (Comas-Quinn, 2011; Ocak, 2011; Palak & Walls, 2009), time management (Napier, et al., 2011), and adjustments to the blended learning instructional format (Napier, et al., 2011). These questions sought to understand the participants' perceptions related to these topics and any others that may arise during the course of the study. Through these questions, participants were able to address the broad research question regarding their overall experiences with blended learning as the first guiding question concerning the instructors' perceptions of blended learning prior to their involvement with the course.

Questions 3 through 6 were designed to explore the preparation experiences of the instructors and directly relate to the second guiding question driving the research. Despite the recognized importance of a trained, skilled instructor in both traditional and online learning environments (Moore, 2011), training is often neglected when implementing online learning programs such as blended learning (Meyer, 2014). Preparedness for blended learning is a noted area of need in the literature for both instructors and students (Mahdizadeh et al., 2008; Moore, 2011; Palak & Walls, 2009; Pape, 2010). Prerequisite skills such as time management (Napier, et al., 2011), technology integration (Pape, 2010), and learner centered pedagogy (Mahdizadeh et

al., 2008; Palak & Walls, 2009) impact blended learning experiences. Therefore, questions 3 through 6 were developed to assess the level to which these instructors were prepared for their blended learning experience.

Questions 7 and 8 are tied to the research question through the third guiding question regarding the role adjustments that confront the instructors and their students as they transition from traditional to blended learning environments. The changing role of faculty as they move into online learning environments is documented in the literature (Barbour, 2013; Burkle & Cleveland-Innes, 2013; Ocak, 2011; Shaw, 2009; Zhu, Valke, & Schellens, 2010). Pape and Wicks (2009) outline broad categories that describe the role adjustments faced by instructors making this transition. Those categories are guiding and personalizing learning, communication, assessing and grading, and developing online course content and structure (Pape & Wicks, 2009). The shift from teacher centered pedagogy to learner centered instruction is perhaps the most challenging role adjustment for faculty (Burkle & Cleveland-Innes, 2013; McQuiggan, 2012; Kenney & Newcomb, 2011; Ocak, 2012; Shaw, 2009; Ugur et al., 2011). Question 7 was specifically designed to highlight the adjustment experiences of the instructor.

Students experience role adjustments when transitioning to blended learning environments as well (Burkle & Cleveland-Innes 2013; Garrison & Akyol, 2013). Students new to blended learning are faced with managing the online delivery format along with the shift to learner centered instruction. The greater autonomy provided to learners in the blended learning environment produces a role adjustment in students that may require intervention of the instructor to facilitate a successful transition. Question 8 acknowledges that the adjustment experiences of students likely impacts how instructors manage the blended learning environment, and seeks to reveal how instructors perceive and assist with their students' transition.

Semi-structured interviews were scheduled with the participants at two points during the study. The first interview occurred with each participant during or after the third week of the teaching semester. Initial interviews were all conducted at the centralized blended learning classroom site. Each interview began with the broad, open-ended questions included in Table 1. Following analysis of the responses, follow-up questions were developed and asked in the second semi-structured interview. The second interviews occurred during the final days of the semester, and took place in mutually agreed upon locations. Responses to all interviews were recorded via audio tape and later transcribed.

Reflective Journals

Reflection is a tool that allows teachers to connect knowledge and practice (Postholm, 2012). Instructor participants were asked to maintain an electronic reflection journal containing weekly entries during a seven week period. Entries were to be submitted and maintained electronically via email with backup storage on a flash drive. Compliance was encouraged through weekly email reminders to participants. Five participants completed two journal entries each during the seven week period. The journal protocol is located in Appendix B.

Journal entry responses were completely open ended giving the participants the freedom to choose the information they wish to submit. Four open ended prompts were developed for the Reflective Journal with each prompt connected to the overall research question or guiding questions. See Appendix C.

Reflective Journal Prompts

1. What themes or issues stand out as you reflect on the events of this week?
2. How did your preparation experiences impact your blended learning experiences this week?

3. What adjustments to your practice, if any, did you make in order to implement blended learning instruction?
4. What strategies did you employ to assist your students in transitioning to the blended learning environment?

The first question was included in the reflective journal to elicit responses related to the broad research question: What are the experiences of the first time instructor of a blended learning course? The question was purposefully open ended to allow the participant to respond freely with any information they felt stood out during the week. The second prompt was designed to bring out how the participants' training and other preparation experiences impacted their day-to-day work in the blended learning environment. Responses to this prompt served as one data source informing the second guiding research question related to preparation experiences. The aim of the third journal prompt was to explore any changes to practice experienced by the instructors. This prompt was linked to the third guiding research question related to role adjustments and the fourth guiding question related to transition strategies. Finally, the fourth journal prompt addressed transition strategies for students making a connection to the fourth guiding question focusing the research.

Nonparticipant Observations

Nonparticipant observations provide a window into the context and natural setting for phenomenon under study (Yin, 2009). In this case study, nonparticipant observations were conducted to collect data from within the naturally occurring blended learning environment. The observations were conducted at the centralized instructional setting allowing observations of both face-to-face instruction as teachers worked with individuals or groups of students, and

segments of online instruction as some students worked independently. A total of 11 nonparticipant observations were conducted. These observations were scheduled and typically occurred over thirty minute sessions. It should be noted, however, that observation times varied due to the lesson content and needs of the students. Each observation occurred at the centrally located blended learning classroom site and included student populations from each of the three community home high school sites. Both descriptive and reflective notes were made on the observation protocol provided in Appendix D. Results were recorded electronically and stored on both the observer's laptop computer and backup flash drive.

It is important to consider that observational data can be impacted by the mere presence of an observer within the natural context causing changes in the behaviors of those being observed. This phenomenon, known as the Hawthorne Effect (Adair 1984), can distort observational data since participants may change their behavior simply because they know they are being observed. Despite this, both Yin (2012) and Stake (2010) tout the value of observational data. Since it may be difficult to completely remove bias from data collected through observation, nonparticipant observations were utilized as one of several methods of data collection for this study. Although the purpose of my presence in the learning environment was known to each of the participants, I assumed a passive position during the observations avoiding any interactions with the participants. Observations were made from the etic perspective with the observer functioning as an outsider looking in to the blended learning context.

Focus Group Interview

A focus group is a group of individuals selected to comment on their personal experiences related to a particular research topic (Gibbs, 1997; Powell & Single, 1996). Focus groups are a popular method for gathering qualitative data and are often paired with other forms

of qualitative data collection such as individual interviews (Morgan, 1996). Focus group interviews also provide a social element to the data collection that cannot be achieved in individual interviews, journal writing, or observation (Morgan, 1996). This social component may enrich the data collection related to the experiences of the instructors as they question each other and explain their viewpoints to each other. This process will bring to light finer points of agreement or disagreement among the participants that cannot be discovered through the other data collection techniques employed in the study.

One focus group interview was conducted at the conclusion of the study. The purpose of the focus group interview in this study was to clarify and confirm information previously collected from the participants in the semi-structured interviews, reflective journals, and nonparticipant observations. In addition, this focus group session provided a forum for further exploration of issues or questions brought to light through the previously collected data. The questions guiding this culminating activity were developed during the data collection process and are included in Appendix D. Two participants agreed to participate in the focus group interview which was conducted face-to-face in a traditional classroom setting of one of the participants.

Data Analysis

Yin (2009) supports the selection of one or more strategies to orient the data analysis phase of research. Including multiple approaches for data analysis strengthens the overall reliability and validity of the study's findings. For this collective case study, selected strategies for data analysis included the use of coding, pattern matching, and cross case synthesis. Data from the nonparticipant observations, reflective journals, focus group, and individual interviews were collected. Prior to analysis, member checking with each participant was employed to

ensure the accuracy of the data. After the accuracy of interview transcripts was confirmed, data analysis proceeded using the following procedures.

Coding

Coding is the process of assigning a word or short phrase to a unit of data that symbolically depicts a summary or the essence of the data (Saldana, 2013). Coding provides the connection between data collection and meaning that leads to later pattern detection, categorization, theory building, or other analytic process (Charmaz, 2001). Coding of the data can occur in multiple cycles as the researcher searches for themes and meaning in the data (Saldana, 2013). For this collective case study, three cycles of coding were utilized. Coding began with open coding to develop a listing of common terms. This was followed by axial coding which was used to interpret the open codes and link them to central categories. Finally, selective coding was utilized in the cross case analysis to identify the major themes from the data.

Open coding. Open coding was employed at the outset of this coding phase. Open coding is deemed appropriate for all types of qualitative studies and is especially effective in studies with a variety of data sources (Saldana, 2013). In this case, open coding was employed to discover the common in vivo terms in the data. In vivo coding is a technique that utilizes words and phrases from the participant's own language as the codes (Saldana, 2013). This technique ensures that the participant's voice is given precedence and is honored in the data analysis. In this case, in vivo coding was utilized in conjunction with open coding of participants' interview data. Descriptive codes were also utilized to summarize the content of nonparticipant observations and journal entries.

Axial coding. A second cycle of coding is often necessary to develop categories from the first cycle of coding (Creswell, 2013). Axial coding methodology was applied to the initial codes, linking those codes to central categories. Through this process, the original codes were organized into categories: perceptions, preparation and training, role adjustments, transition strategies, change, administrative challenges, technology, and classroom management.

Cross Case Synthesis. Yin (2009) reported that, when possible, cross case synthesis can reinforce the patterns to develop themes of individual studies. In this study, five cases were examined. Each case was treated as a separate case with independent data collection. Following the data collection, analysis of each individual case, and open and axial coding processes, selective coding (Strauss & Corbin, 1994) was employed to develop themes from the categories across the cases.

Trustworthiness

Trustworthiness is an essential component of qualitative research (Lincoln & Guba, 1986; Stake, 2010; Yin, 2009). Several areas have been identified related to trustworthiness in case study research including credibility, dependability, transferability, and confirmability (Lincoln & Guba, 1986). In the sections that follow, these aspects of trustworthiness are defined and described as they pertain to this case study.

Credibility

Credibility is connected to the authenticity or truth of the research findings (McGloin, 2008) and mirrors the concept of internal validity as it applies to quantitative research (Lincoln & Guba, 1986). This case study research occurred within the natural setting of the blended learning environment and included the perspectives of current blended learning instructors. The

researcher utilized memoing as a means to identify and limit potential bias. Prolonged engagement within this natural setting through nonparticipant observations enhanced credibility (Lincoln & Guba, 1986; Mills, Durepos, & Wiege, 2010). The researcher made 15 visits to the centralized blended learning site, and conducted 11 nonparticipant observations in the blended learning setting. Additionally, participants were provided the opportunity to review the transcripts of their audio-recorded interviews through member checking. Member checking was used to verify data accuracy of transcribed content. Providing these opportunities for participant review and making any needed corrections enhanced accuracy and increased the reliability of the study's results (Lincoln & Guba, 1986; Mills et al., 2010; Stake, 2010).

Dependability and Confirmability

Dependability refers to the consistency in the data study and whether or not this consistency would be maintained should the study be repeated (McGloin, 2008). Dependability was enhanced through the use of an audit trail that monitored the accuracy of the data collection (Lincoln & Guba, 1986; McGloin, 2008). In this study, the data collection began with nonparticipant observations. A protocol was utilized for recording the observations of the researcher during each observation. The protocol included a place for descriptive notes and the researcher's reflective thoughts that occurred during the observation. Two semi-structured interviews were conducted with each participant. Each interview was guided by a predetermined set of interview questions. Responses were recorded and later transcribed by the researcher. The accuracy of all transcripts was verified through member checking with the participants. Electronic reflective journals were collected from each participant. Weekly reminders were provided to the participants to encourage the completion of the journals. Even with the reminders, participants chose to only be involved in two input journal entry weeks each. The

audit trail also included an ongoing detailed chronology, outlining the data collection process and timeline for each data collection point.

Confirmability is also linked to the neutrality of the study's findings (McGloin, 2008; Mills et al., 2010). Both reflexivity and triangulation were practices that boosted confirmability (Mills, Durepos, & Wiege, 2010; Stake, 2010). In this study, triangulation occurred through data collection from multiple data sources that include semi-structured interviews, nonparticipant observations, reflective journals, and one culminating focus group interview. Additionally, the researcher declared all personal biases at the outset of the study and memoed during each phase of the data collection. A sample of the researcher's memoing is provided in Appendix E.

Transferability

Transferability speaks to the ability to generalize the results from the study to another context (McGloin, 2008; Mills et al., 2010). Yin (2009) postulated that conducting research in a natural setting and increased sample size can improve the transferability of case study results. Data collection occurring within the natural setting increases the applicability of the findings to other natural blended learning settings. In this study, research was conducted in the natural setting of the participants centrally located school classrooms, as opposed to a laboratory or other contrived setting. Additionally, this study explored the research questions through the eyes of five participants. The instructor participants taught in two high schools from three anchor communities with the same school district. Students enrolled in the blended learning courses were drawn from the three separate anchor communities. Common findings across multiple participants and anchor sites increased the likelihood for transferability of these findings to the broader population (Yin, 2009).

Lincoln and Guba (1986) point out that thick descriptive data deepens transferability of qualitative study findings. The Encyclopedia of Case Study Research (Mills, Durepos, & Wiege, 2010) defines thick description as “a term used to characterize the process of paying attention to the contextual detail in observing and interpreting social meaning when conducting qualitative research” (page 942). In this case study, data collected through interviews, nonparticipant observations, and the reflective journals were compiled and analyzed to develop thick descriptions of the instructors’ blended learning experiences.

Ethical Considerations

Approval from the Institutional Review Board provided the initial check for ethical research practices. A copy of the approval is included in Appendix A. Ethical considerations with regard to issues of privacy and consent were addressed. Care was given to protect participant privacy by the removal of instructor names from all data and reports. Participants and schools represented were referenced through pseudonyms. Participants were informed of the risks related to identification despite precautions due to the small number of participants in the study. Participants were made aware of the procedures for withdrawing from the study. All data was carefully stored on a laptop computer that is password protected. Backup files were stored on a flash drive maintained in a lockable filing cabinet in a secure office location.

Summary

This qualitative study employed a collective case study design to investigate the experiences of five first time instructors of a blended learning course. A single research question and four guiding questions focused the study. The study was conducted in a single school district and included three high school anchor sites from within the district. The participants were normally based at two of the three anchor sites. Instructed students were drawn from all

three high school sites. The face-to-face component of the blended learning courses occurred in a centralized classroom space within the school district. Online components of the blended learning course were completed within the anchor communities, and could be completed in the centralized classroom as well.

The researcher served as the primary instrument for data collection for this study. Data collection sources included nonparticipant observations, electronic reflective journals, semi-structured interviews, and one focus group interview. The data were collected over a nine-week time period and from all participants. The researcher transcribed all recorded interview data and utilized member checking to confirm the accuracy of the transcripts. Data analysis occurred in three phases. Open coding was employed at the outset of data analysis for the development of an initial set of common terms from the data. This was followed by axial coding which led to the development of major categories. Finally, overarching themes were developed through a cross case syntheses process that included selective coding.

The trustworthiness of the research was enhanced through several means. Memoing was used to identify researcher bias. The study occurred within the natural setting for the blended learning environment, and included prolonged engagement with the researcher in the setting. Member checking was employed to ensure accuracy of all interview transcripts. Triangulation across multiple data points was used to confirm findings. The researcher also kept audit trail records throughout the study outlining the data collection processes and timelines.

CHAPTER FOUR: FINDINGS

Overview

The goal for this study was to investigate the transition experiences of high school teachers instructing a blended learning course for the first time. This chapter presents the findings and data analysis of the information gleaned during the field work portion of the study. Data sources include nonparticipant observations, reflective journals, semi-structured interviews, and one focus group interview. Broadly, this study sought to answer the following research question: What are the experiences of first time high school instructors of a blended learning course? The following four guiding questions provided focus and narrowed the scope of the research:

1. What were the instructor's perceptions of blended learning prior to their involvement in blended learning?
2. What were the preparation experiences of first time blended learning instructors?
3. What teacher role adjustment experiences confront the first time blended learning instructors?
4. What strategies do first time blended learning instructors employ in transitioning themselves and their students to the blended learning environment?

The sections that follow provide a description of each case participant and summary of the experiences related to each participant's individual case. Relevant themes arising from the data are organized and presented as they aligned with the guiding questions that directed the path of the study. Chapter 4 concludes with a report of the findings of cross case analysis. Common themes derived across the cases are presented.

Participants

Five instructors new to blended learning were selected as individual cases for this collective case study. Background and demographic information for each participant is provided as an introduction to each individual case. Pseudonyms have been used to protect the identity of each participant.

Carol

Carol is a Caucasian veteran mathematics teacher based at High School C. Her teaching experience has been exclusively in traditional classroom settings utilizing traditional instructional methodologies. Although Carol's primary teaching responsibilities were with Algebra I coursework, she was considered a mathematics content expert across content areas including algebra, geometry, and algebra functions. Carol was an eager participant who willingly contributed to the study.

Holly

Holly is a veteran teacher also based at High School C. She is Caucasian and endorsed as a mathematics teacher who was referenced as a math content specialist. Holly's teaching experiences had been in traditional instructional settings, and she approached teaching from primarily a teacher centered perspective. She was initially eager to participate in the study and freely shared information with the researcher. As the study progressed, however, she appeared less eager, and confirmed with the researcher on two occasions the promise of confidentiality regarding her identity. Holly's teaching responsibilities include Algebra II and Algebra, Functions, and Data Analysis.

Lori

Lori, an Asian American instructor based at High School A, is an experienced educator with a strong background in instructional technology. Lori's technology skills were utilized across content areas as she assisted students with learning the how to best use the blended learning technology. Lori's primary content area responsibilities included English coursework.

Angel

Angel, a veteran mathematics instructor serving as a content specialist for the blended learning program, is based in a traditional learning environment in High School C. Angel served as the instructor for the Geometry coursework. As the semester progressed, Angel emerged as an instructional leader who supported collaboration and teamwork among the blended learning instructors. She often referenced her work with others, and was also described by other study participants as a team player who collaborated with colleagues. Angel presented as a student-centered instructor who was willing to take instructional risks in her classroom practice.

Mary

Mary, the youngest participant in the study, is endorsed in the content areas of history, social sciences, and English. She brought strong technology skills to her blended learning experience, and was eager to apply those skills in her instruction. Mary's instructional focus during the study was the Personal Finance course.

Results

This study sought to investigate the experiences of first time instructors of a blended learning course. Five individual cases were textually individually analyzed and then coded through open, axial, and selective coding to determine overarching themes. Analysis began with open coding which revealed common terms in the data. Axial coding was conducted following the open coding process, yielding central categories linked to the open codes. The development of themes began with cross case analysis where the cases were examined collectively to determine commonalities across the cases. Selective coding was employed to determine shared themes. Five shared themes were identified. A complete listing of codes and themes can be found in Appendix F.

A summary of each case is presented in the section that follows. These summaries include teacher preparation experiences, role adjustments, interactions with students, and transitional strategies employed by the participants. Following the individual case summaries, the five themes derived from the cross case analysis are presented as they relate to the original guiding questions for the research.

Case Summaries

Carol's Case Summary. Carol expressed positive initial perceptions of blended learning, although she wasn't sure about the platform selected to deliver the online content. She shared she felt that the methodology was a good idea. Carol presented as a student-centered educator who tended to frame nearly every answer to questions in terms of her students, even if the question directly asked about some component of her experiences. She defined herself in terms of her students and their successes or failures. She often felt overwhelmed and unsure of her own effectiveness because she struggled to evaluate and understand the successes and

failures of her students. Several ideas have been derived from Carol's experiences that contributed to feelings of inadequacy and ineffectiveness. Those ideas related to changes in teacher student interactions, insufficient teacher preparation experiences, insufficient student transition strategies, and her own role adjustment experiences.

Teacher preparation experiences. While Carol acknowledged receiving a one day overview training prior to the start of the semester, Carol often felt unprepared for the day to day challenges she faced. These feelings related to her lack of preparation fueled apprehension that crept into her discussions of a variety of topic areas. Carol's greatest concerns related to lack of formal preparation and her own deficits in personal exposure to blended learning.

Carol relayed that she received very little formal preparation for her transition into the blended learning instructional arena. While she was provided one day of training, she expressed feeling overwhelmed by the information provided. She stated "...it was overwhelming because I had never seen the program before let alone know how to move around (in the program)." She added, "...it wasn't that the training was bad...it was just...until you actually get in it...it's such a big program." In her second interview Carol expanded on this need to "actually get in it" referring to the software program. She suggested a hands on approach to training rather than the one day overview format would have been more beneficial for her.

Carol also reported a lack of personal experiences with any form of technology enhanced learning, from either the student or instructor perspective. Carol shared, "You know, I've never taken an online class." She later added, "I've never taken a class with this software, so I don't fully understand the problems the kids have." Carol concluded that her shortfall in personal experiences with blended learning as a student impacted her ability to connect with and understand her students in the current blended learning setting. Carol indicated that increasing

her personal experiences with blended learning would be an advantage to her as well as her students.

Role adjustment. Carol experienced adjustments in a number of areas impacting her role as the teacher in the blended learning environment. When asked about how her role had changed, she often commented about students working from home versus working in the more traditional classroom. She referenced monitoring those students who primarily worked from home stating, “We don’t see them face to face. All we’re seeing is progress. Well the snapshot that we look at is progress and what their grade is. And as long as their progress is hitting their target and their grade is above 70, we pretty much let them go.”

Pacing of instruction was another area of adjustment for Carol. Pacing in the blended learning environment was more individualized and student driven than what she expected in the traditional classroom. Carol indicated that she monitored grades allowing students who were doing well to have more freedom to continue on at their own pace. Students not making adequate progress were required to come in to the centralized classroom for additional assistance. Carol reported positive feelings about the flexible pacing of instruction and was proud of students who finished all of the course requirements early. “It was good to see the kids finish up and enjoy success.” But she also shared a challenge that accompanied the individualized pacing. “All the students are in different places, so it’s kind of hard to jump back in to teaching by hand.” Carol had to adapt and be prepared to meet students’ instructional needs across a variety of topics on any given date.

Perhaps the largest shift in Carol’s role as the teacher was linked with the student-centered philosophy behind the blended learning philosophy. Carol approached teaching from a student-centered perspective, but her prior teaching experiences were situated in a more

traditional educational environment. Carol philosophically agreed with much about blended learning, but had to learn how to apply this philosophy in the new classroom environment.

When asked to clarify her perceptions of the shift in her role, Carol shared:

The performance part where you stand up in front of the class and do things, there's the grading part where you sit and do that stuff, and then there's the individual work with the kids...that's pretty much the three and then the administrative stuff. That's the three main roles of the teacher. This (referring to blended learning) takes away the performance part. We're really not doing much of that. I'm here to guide and help.

Finally, Carol experienced new levels of collaboration and teamwork with her colleagues while instructing in the blended learning environment. She and her fellow instructors worked together to ensure that students had the resources and support needed to succeed. Two factors contributed to the enhanced collaboration that Carol experienced. The structure of the blended learning environment within the school district provided physical opportunity for the collaboration and teamwork to occur. The centralized classroom site was a shared learning space where multiple teachers worked with students within one of two large learning spaces. Teaching in close proximity with her colleagues rather than alone in a traditional classroom provided frequent opportunities for Carol to work and plan collaboratively with her fellow instructors. Carol also felt insufficiently prepared for teaching in the blended learning environment and overwhelmed with the demands in the new instructional setting. These feelings motivated Carol and her colleagues to work together to ease these burdens.

Interactions with students. Classroom observations revealed that Carol's interactions between with students occurred exclusively in one-on-one or very small group settings. No

whole group instruction was observed. Carol interacted with students primarily via face-to-face encounters, however, email was also used to interact with students when either the student or teacher were working away from the centralized classroom. According to Carol, she interacted with her students in the online environment via email or google classroom outside of scheduled classroom hours. Classroom interactions were initiated primarily by the individual students rather than the teacher. Exchanges were prompted through raised hands or by students approaching the teacher while she was seated in another part of the large classroom space.

The substance of the interactions between Carol and her students varied and frequently included more than academic content. Carol often provided encouragement to her students. Carol also spent time discussing and critiquing the instructional software with her students that regularly reported that the videos were boring. Some students also needed assistance in planning, time management, and preparation for learning. Carol discussed pacing and provided learning resources for these students. Finally, a small percentage of Carol's observed interactions with students were related exclusively to instructional support regarding academic content.

Carol relayed conflicting thoughts about her interactions with students. In her initial interview she shared feelings of disconnection with students who worked primarily from the online instructional environment. She stated "They....took it at home. So I don't know what they're experiences are or what they struggled with or what they liked or anything like that." Later in the same interview, however, Carol shared that she feared her interactions with students contributed to student dependence. "But it's the interaction with the kids that I think we're afraid of because right now the kids are so dependent on us and we don't want that."

During her second interview, Carol expressed additional concern for how the limited opportunity for direct interactions with students in the blended learning instructional environment impacted her relationships with students. She shared, "...a lot of times there were names on a computer screen and I didn't even know who they were. I would go over to help a kid after, and I'd have to peek at this grade to see who he was." Carol valued relationships with her students, however, she expressed frustration with the impact of fewer interactions on teacher and student relationships. Carol shared, "I'm very much a relationship type of teacher. I mean I joke with my kids. You know when they play a game. I usually know how they did and that sort of stuff. Yeah, that I didn't feel I don't know – it didn't feel the same. Not that it was bad, I guess, but it just wasn't the same."

Transitional strategies. When discussing transition strategies, Carol had very little to say about her own personal evolution from traditional teaching to the blended learning instructional format. Outside of a single reference to importance of teamwork among the teachers, all comments related to transition strategies were framed in terms of how she worked to transition her students into the new learning environment. Carol indicated that transitioning her students to the blended learning environment "is the biggest problem we had." She felt that students were unprepared to self-monitor and lacked the ability to progress independently through the coursework. She noted that the students' prior educational experiences may have impacted their ability to readily transition into blended learning. Carol explained that students who were taking courses for the first time experienced greater success than those who were repeating a course.

Carol employed several strategies aimed at assisting her students with the transition to blended learning. Those strategies ranged from orienting students to the components of the

software to coaching students in how to access and learn the content through the nontraditional blended learning instructional methodology. Accessing and productively using the online videos was particularly troublesome for students transitioning from traditional classroom teaching to the blended learning. Carol noted that “A lot of kids at the beginning weren’t paying a whole lot of attention to the videos, and they were just waiting to get to the test so they could take the test.” As a result, students needed additional orientation and instruction on to how to benefit from the videos. Carol also learned how to disable the auto-progress features of the software program while she worked with students to increase their ability to monitor their own readiness to test.

Although Carol articulated several strategies she employed to assist students with the transition to blended learning, she felt of inadequate and ill equipped to address this challenge. She noted, “I don’t think we’ve done a good job of telling them how to take a test online.” She felt that despite her efforts, students needed additional instruction with using the technology productively. She shared, “I don’t think they used the technology. We think they know how to use computers and everything, and I don’t think they do really. But they know how to do some stuff but not how to use it productively.” Carol was puzzled about why students could use technology for a variety of purposes outside of school, but were not proficient with utilizing technology for educational tasks. Carol’s feelings of inadequacy grew as the semester progressed. She felt that she struggled to understand the problems the students experienced with the blended learning format sharing.

Holly’s Case Summary. Holly’s initial perceptions of the blended learning methodology were colored by her prior experiences. Holly had experienced success with more traditional teaching methodologies, and this caused her to be skeptical about the potential effectiveness of blended learning. Holly’s initial perceptions included an expectation of “a lot of

computer” as the primary method for delivering instructional content. She also anticipated that her role as the instructor would shift as she would need to provide supplemental materials to students who may need additional instructional materials to support their learning.

Holly described her overall experiences with blended learning in a negative light. Her initial perceptions of skepticism were reinforced by what she described as a “terrible” experience. Holly portrayed the blended learning environment as “unorganized, it’s unstructured, and the kids have no structure.” Holly repeatedly added concerns that the students were not learning with the blended learning methodology. Holly felt frustrated with several aspects of her blended learning experience. Most notably, she felt unprepared and ill equipped for the transition to blended learning.

Preparation. Holly reported that she received two days of training prior to the beginning of the semester. She reported feeling inadequately trained and was left to her own devices to learn about the software program that would deliver the content to the students. In Holly’s view, this gap in preparation set the stage for a challenging start to the semester. She stated during an interview “It just makes everything very difficult. When you’re not properly trained, I mean nothing’s very smooth.” Holly alluded to feelings of disorganization and frustration with how the semester started as a result of being unprepared to instruct through the blended learning format.

Holly also felt ill equipped for the planning and preparation required of her as the blended learning teacher. Holly felt that her lack of training at the beginning made it more difficult and time consuming to prepare for daily instruction. She felt she wasted a lot of time trying to work through the numerous features of the software program. She expressed frustration with the challenges associated with locating supplemental resources. This frustration was exacerbated by the asynchronous nature of blended learning. The search for supplemental

resources on a variety of topics for individual students was overwhelming and time consuming for Holly. Sensing that her students were not mastering the content, she felt compelled to return to her comfort zone by providing more traditional instruction to assist students. Unfortunately, she found this impossible in the blended learning environment.

Role adjustment. Holly had difficulty embracing the role adjustment she faced in blended learning, and ultimately compared her role in the classroom to babysitting. She stated “I don’t feel like I’m really here to be a teacher.” She frequently referenced her preference for methods she used in her traditional classroom setting. She spoke of homework and other assignments with designated due dates, and felt that students would perform better under more structured and traditional conditions. She spoke of lesson plans that she was not required to complete for the summer semester.

Ultimately, Holly felt out of control in the blended learning setting. She often used the word control when discussing her experiences. She branded the methodology itself as being unorganized and unstructured and shared that ‘most days I feel like I’m being pulled in ten different directions.’ She further stated “you have no control over the kids.” Holly’s reluctance to let go of her traditional pedagogy produced considerable frustration for her regarding the flexibility in attendance requirements, the asynchronous pacing, and student learning behaviors. Holly’s teacher centered perspective was inflexible and proved to be an enormous barrier for both her and her students.

Interactions with students. Classroom observations revealed that Holly’s one-on-one interactions with students outnumbered her group interactions eight to three. Holly was vocal about her preference for traditional whole group instruction where pacing of instruction was

more synchronous. Despite this preference, Holly's teaching behavior included significantly more individual contact with students than whole or small group interaction.

Transitional strategies. Holly did not feel armed with tools and strategies to assist her students' transition into the blended learning environment. She was not sold on the method herself, so it is no surprise that she experienced difficulty supporting her students in their transition. She attributed any difficulties experienced by her students to their need for more traditional instruction or lack of motivation. She stated, "They need structure. They need someone telling them, nope this is due tomorrow." Holly felt students weren't motivated, and needed to learn how to be productive in the blended learning environment. Holly had no strategies in her repertoire to assist her students with their transition from traditional to blended learning.

Lori's Case Summary. Lori's perceptions prior to instructing a blended learning course were optimistic. She confirmed that training had been limited regarding the methodology and software, but her solid technology skills allowed her to move forward without cause for concern. She anticipated that her role would transform from the traditional lecture format to one where she would provide resources for students to independently explore content. She understood that an online software program would deliver the bulk of the content instruction to students. As the semester progressed, however, several ideas emerged from Lori's documented experiences. These themes included the lack of preparation, the need for strategies to support learners in their transition, and her own role adjustments related to the methodology.

Teacher preparation experiences. Lori echoed the perceptions of the other participants regarding a lack of preparation for the blended learning experience. She stated "There wasn't any formal training. We had one day of 'this is what summer session will look like' and

expectations.” Beyond noting the lack of training on the nuts and bolts of the blended learning program, Lori also noted that there were no preparation experiences aimed at guiding teachers through the transition from traditional to the blended learning teaching methods. Lori indicated that she developed these strategies for herself along the way.

Role adjustment. Lori shared several ways that her role as the teacher changed in the blended learning environment. Perhaps the most notable transformation occurred with her communication with students. While she also interacted with students one-on-one or in small groups, Lori also relied heavily on electronic methods of communication. She frequently used email, the google classroom, and electronic messaging to connect with students. She recognized technology as an asset that provided greater availability of teacher to students.

Lori also spoke about how the organizational structure of blended learning impacted her role as the teacher. She noted the ability for both students and teachers to participate in the learning process from home as innovative and transformative. Teaching from home while some students were physically present in the centralized classroom environment was a new experience for Lori! Lori also shared her experiences assisting students with technology issues in the centralized site whose teachers were teaching from home, and sharing plans and resources with colleagues. This type of teamwork was rewarding for Lori.

Lori also spoke about her mindset as a major component of her role adjustment experiences. She began the semester with some preconceived notions about teaching and how her students would approach blended learning. Many of those ideas did not hold true during the semester. For example, Lori shared “We saw first-hand that students learned in different ways. If we allowed them choice, they owned their learning more deeply. They took ownership more.”

She framed many of her responses to interview questions in terms of students' needs. She indicated "I have to make a major shift."

Interactions with students. When reflecting on her interactions with students, Lori noted in her reflective journal that students were more likely to ask teachers for help in the blended learning instructional environment. She found that the reduced need for her to provide whole group direct instruction left her with more time to work with students individually. Lori also took advantage of technology as a means for increased communication. She utilized google classroom, communication logs, and electronic messaging when connecting with students outside the classroom.

Transitional strategies. Lori also anticipated that her students would be intrinsically motivated learners who would excel with the perceived autonomy the blended learning instructional format would provide. Once involved in the course, however, Lori conveyed concerns about her students' ability to transition from a traditional to blended learning setting. Lori expressed disappointment related to her students' level of motivation stating that students were often not intrinsically motivated, and as a result, she often had to spend time addressing what she characterized as "a lot of disciplinary" concerns. Lori added that she spent much of the time coaching students about how to benefit from the instructional videos. Although Lori expressed support and positive perceptions of the blended learning methodology, her responses frequently contained concerns with student discipline, administrative challenges, and other organizational management issues. This mismatch between her initial perceptions of how students would react to the blended learning environment and the reality of their preparedness was a source of frustration for Lori. Lori needed additional preparation and strategies to assist

her students in the blended learning environment. She expressed frustration because she felt unsupported in her efforts in this area.

Angel's Case Summary. Angel was enthusiastic when discussing her early perceptions of blended learning. She shared her expectation that blended learning would be “a great tool for teachers” that would be “helpful for teachers to meet all of the needs” for students. She implied a basic grasp of some of the changes she would experience in her role as blended learning instructor indicating that instruction would “not just be the teacher teaching all the time.”

Teacher preparation experiences. Angel felt confident in her abilities to effectively implement the blended learning instructional methodology. She acknowledged being trained regarding the educational software, and felt the preparation experiences were helpful. She further indicated, however, that she would have preferred even more training than was provided. She believed that although she felt prepared to begin the summer semester, she noted that many of her peers were not prepared and cited their ongoing difficulties with using the software program.

Interactions with students. Angel's observed interactions with students were largely one-on-one, and she was often engaged in prolonged encounters with individual students. In one instance, Angel spent nearly twelve minutes with one student. These interactions included traditional paper and pencil activities, viewing computer content together, and discussions. Interactions were initiated by both students and the instructor. Angel shared positive feelings about her student interactions in the blended learning environment. “I felt like there's more relationship building in blended learning because you have to deal with the student one on one.” Angel also shared additional comments about the importance of relationships in blended learning. She developed these relationships through her individual interactions.

Role adjustment. Angel's adjustment experiences with her first blended learning experience ranged from positive experiences with teamwork and collaboration to grappling with the broad challenge of change. Angel noted, "There was a challenge (for me) because I am teaching for more than ten years already, and I had been used to doing hands on at the same time, and then doing some computer activities. She noted that her role in the traditional classroom had been more teacher oriented requiring a lengthy planning and instructional process. Angel discovered that time she spent developing traditional lesson plans for a more traditional teaching methodology was now spent planning individualized support lessons with supplemental materials for particular students. Angel also described a shift in the role of the student in the blended learning environment. She observed her students struggling with taking more ownership of their learning, and believed they were less prepared for their transition. She said "The students faced a greater challenge than I did." She spoke about assisting students with using the technology, explaining processes for watching instructional videos and pretesting with the software system, and encouraging students to take initiative with their learning.

Transitional Strategies. Angel emphasized one idea consistently when considering strategies she utilized to assist her with the change to blended learning. She stressed that organization was the key for her in successfully transitioning from traditional to the blended learning methodology. Related to organization were Angel's ability to plan collaboratively with her peers to streamline the planning process as well as the search for instructional resources. In addition, Angel invested time in learning about the technology tools available to her and leveraged those competencies to further increase her organization.

Angel also noted that her students needed assistance with the transition to blended learning. In fact, she believed that her students faced a greater transition challenge than she had

experienced. Angel reported that her students would have benefitted from an orientation period prior to starting the summer semester where students could become familiar with the blended learning model as well as the online software program. Angel also described the difficulties some students had with taking initiative in the learning process and transferring and applying technology skills commonly used outside of school into the learning process.

Mary's Case Summary. Mary shared that while her initial perceptions about blended learning were favorable, she knew very little about blended learning prior to becoming a blended learning instructor. She indicated blended learning was “just a term” that she had “never really heard before.” Mary envisioned that technology would be one component of blended learning, but beyond this, she was unclear about how blended learning would be implemented. She expected that students’ would divide their time between “listening to me and using some sort of technology” but her perceptions lacked details about how she would provide instruction with the blended learning methodology.

Teacher preparation experiences. Mary’s incomplete understanding of blended learning continued into the early weeks of the semester. She indicated that she “wasn’t really sure what she was getting in to.” With no formal training before embarking on her journey into blended learning, it was her positive outlook that propelled her as she started. She described her first days by saying “I just kinda jumped in with both feet and we started with the technology.” She characterized her progression through the semester as often learning from mistakes through the use of trial and error. She further noted that she found this experience helpful. She shared “If I did it the wrong way it helped me to figure out how to do it the right way.”

Role adjustment. Mary faced changes in her role as the teacher in the blended learning environment. She acknowledged that her frame of reference as a traditional student and her

training in traditional teaching methods influenced how she typically viewed her role as a teacher. She recalled her childhood classroom experiences where compliant students sat in rows in a quiet and respectful classroom. Mary was also Mary's experiences in the blended learning environment challenged her to view her role in teaching from an alternate perspective. Her comments clearly indicated a shift in her pedagogy from a traditional teacher centered practice to a more student-centered approach. She talked about letting go of old paradigms. She recalled asking students to be quiet only to discover that they had actually been productively discussing content. These changes were especially evident in how technology, teaching resources, and her relationships with her students impacted her role in the blended learning classroom.

Mary's blended learning experiences concluded with her realization that she had transitioned from a teacher centered position where she directed the learning to a mindset that she characterized as a coaching perspective. She concluded, "We become their coach. We encourage them and tell them that they can do this. And we try to change their study habits, their skills, and to empower them, and with that we try to give them some of the power." Mary also concluded that blended learning was more difficult for her than traditional teaching methods. She reported the planning and preparation was overwhelming at times and suggested that working with a group of blended learning teachers for support would be preferable to attempting the transition alone.

Interactions with students. Mary often referenced how her relationships with her students impacted her teaching in the blended learning environment. She felt that getting to know the students on a personal level was a vital component of planning appropriate instruction for her students. She summarized her view as "we know the students so personally, so you have to get to know the students before you can give them assignments or resources." Mary described

her interactions with her students as an important factor in how she developed relationships with them. Mary had fewer group interactions with her students, but described more in-depth individual interactions in the blended learning environment.

Establishing relationships with her students allowed Mary to learn that her students didn't feel that they could do their work through the course on their own. Some students who didn't have positive experiences in the traditional school format came to blended learning already feeling "like they're not a good learner and they feel like they need somebody with them all the time or they won't be successful." In the blended learning environment, students were expected to have even more control over their learning, and the students were not accustomed to this. Mary found that she had to work to assist her students with this transition. As a result, her interactions with students went beyond the simply conveying content information. Mary worked to build relationships, and focused on teaching students how to be more in control of learning in the blended learning environment.

Transitional strategies. Mary expected that technology would play an integral role in the blended learning process, but acknowledged that her ideas about the use of technology evolved as she moved through the semester. Her initial thoughts were grounded in a more traditional instructional practice where all students would use the same type of technology in a uniform manner. Mary quickly learned that offering flexibility to students concerning what technology to use and how to best use the technology was most effective in supporting student learning. She found that getting to know her students allowed her to offer the best technology tools and options for enhanced learning.

Mary encountered a demanding shift in instructional practice related to instructional resources. From her traditional background, Mary was accustomed to being a primary source of

information for students herself. In the blended learning environment, Mary found that she not only had to know her content area more thoroughly in the blended learning environment, but she also had to have a host of learning resources in mind and available to help her students at any given time. This contrasted sharply with the traditional, more linear teaching experience where very specific resources are made available through an often prescribed timeline or pacing guide. Since pacing for Mary's students was asynchronous, she had to be prepared with knowledge and support materials for many segments of the course at once. Mary often felt overrun by the preparation demands required to meet this need.

Themes

The development of themes began with the aforementioned case summaries. The use of open coding and axial coding methods provided the basis for a cross case analysis that led to five shared themes: Change, Uncertainty, Collaboration, Technology, and Student Centered Pedagogy. See Appendix F for a complete listing of the codes. Each theme is described in the following sections.

Change. The transition from traditional instructional methods to a blended learning methodology placed the teachers in this study in an environment saturated with change. The participants experienced changes in their physical classroom environment, lesson planning, instructional delivery, instructional resources, and in how they interacted with their students. In addition to these concrete changes, the participants experienced change as a unique process foundationally impacted their instructional practice.

The participants were required by their school division to adjust their teaching methodology in a manner that aligned with the blended learning instructional format. Simply complying with this requirement, however, did not result in lasting, meaningful change in

practice and foundational beliefs for all of the participants. An analysis of the findings across the cases revealed that each participant embarked upon a journey of change that mirrored Guskey's model for teacher change (1989) as the semester progressed. Each participant advanced through the series stages in developmental progression according to Guskey's model (1989), however, the pacing of their change process was distinct for each participant. As a result, participants were at various points along the model's continuum of change at the conclusion of the study. Table 2 presents a visual representation of each participant's progress with Guskey's Model (1989) for Teacher Change at the conclusion of the study.

Table 2

Results of Participants' Progression through Guskey's Model for Teacher Change

	Holly	Angel	Carol	Lori	Mary
Staff Development	✓	✓	✓	✓	✓
Change in Classroom Practice		✓	✓	✓	✓
Change in Learning Outcomes		✓	✓	✓	✓
Change in Teacher Beliefs		✓	✓		

Note: ✓ denotes participant progress through the stage of development.

The table shows that each participant was involved in the one-day staff development training provided by the school division. Although all of the participants felt the training was beneficial, none felt the one-day session adequately prepared them to successfully change their practice. In addition, the participants did not experience a change in basic mindset or pedagogy based on the training. Holly was most vocal about her disappointment in the training. She felt the training left her the position of having to learn how to navigate the software on her own, and expressed frustration with her inability to adjust to the blended learning format overall. Lori

confirmed the feelings of Holly and other participants regarding the professional development stage. She shared, "...there wasn't any real training for becoming a, you know, successful personalized learning coach." She added much of her learning about blended learning occurred "along the way." Although no formal training was provided beyond that first initial day of professional development, the participants indicated that they all continued to learn on their own as the semester progressed. Although each felt that more formal training throughout the semester would have been beneficial, their ability to learn on their own and from each other enabled the participants to begin to change their practice.

Four-of-the-five participants worked to change their classroom practices, based on their training and their own learning experiences with the blended learning model. Each participant shared challenges they experienced while making these changes, and expressed reservations about the effectiveness of the program. Ultimately, Holly was not able to adjust to the new method of teaching. Change in practice became easier for the remaining participants as they noted the positive impact of their instruction on student learning outcomes. As the participants became more proficient with blended learning implementing new strategies for themselves and their students, they noticed positive changes in student achievement. Carol, who initially had reservations about the effectiveness of the software, shared "...once we saw their scores come up, we switched them to automatic progression where it gives them a couple of chances and then it takes their highest score and moves on to the next thing." Carol's confidence in the new methodology grew as she noted rising scores. This phenomenon produced a cycle where increases in student success fueled the participants' willingness to change their teacher practice. Changes that produced student success encouraged even greater change in teacher practice.

Early in the semester, both Lori and Mary struggled with student accountability and instructional control, but learned that giving up some control within the learning environment produced greater results for students. Lori pointed out, “If we allowed them (referring to the students) choice, they owned their learning more deeply. They took ownership more.” Mary had a similar experience. As she adjusted her role from a teacher-centered instructional approach to more student-centered strategies, she found that her students benefitted from more flexibility and control in their learning. Mary shared, “it’s great to see them taking it (referencing power and control in the learning environment) and running with it.” Ultimately, a cyclical relationship developed during this phase where small changes in teacher behavior would lead to changes in student achievement. The increases in student learning would reinforce the participants’ changes in teaching practice and encourage additional change.

For two participants, this repeating cycle of teacher change that produced student achievement led to the final stage of Guskey’s Model for Teacher Change (1989) resulting in modifications in the participants’ underlying beliefs and pedagogy. Both Carol and Angel demonstrated alterations in their belief system that impacted their pedagogy and teaching methods beyond their semester of blended learning instruction.

Carol and Angel also reported challenges as they returned to their home campuses to begin teaching in a manner that aligned with their changed practice and pedagogy. Among the hurdles they faced was the conflict between the flexible, student-centered mindset and the traditional teacher centered requirements present on the home campus. Carol described her enthusiasm for bringing components of blended learning into her classroom stating, “I have started recording some of my lessons and posting them on youtube.” Ironically, the school division required Carol and her peers to follow a prescribed pacing guide which limited the

asynchronous pacing that was beneficial to students during the summer session. When discussing the pacing guide requirement Carol reported “If I will change my pacing, then I will be behind the other teachers. And we need to develop common assessments for, you know, Geometry and Algebra I.” Angel indicated she planned to utilize Khan Academy as a resource for video instruction, but lamented the insufficient access to technology to support the implementing the blended learning methodology. Referencing the lack of technology, Carol shared “We need to know it is there. I’m not going to sit there and make the lesson up thinking maybe we’ll have it (referring to technology) this day.” Both Angel and Carol had changed their mindset, and were equipped with ideas and strategies to make long term changes in their instructional practice. Ironically, both Carol and Angel found that the same school division that had prompted their journey to change through requiring the use of blended learning during the summer session was structured in a way that did not support the use of blended learning long term. The use of the pacing guides to control and rate of instruction as well as the lack of technology were formidable barriers to implementing the changes to their teaching methods.

Uncertainty. Participants were plagued by feelings uncertainty concerning many components of their experience with blended learning ranging from their ability to use technology to the overall effectiveness of the methodology. As Guskey’s Model for Teacher Change (1989) points out, teachers typically do not embrace enduring change until they are certain that the change will effectively produce positive results for their students. In this case, the participants’ inexperience with blended learning caused them to question the effectiveness of the methodology. They questioned whether blended learning would adequately meet the learning needs of their students.

Their inexperience with utilizing technology in a blended learning environment contributed to their uncertainty about how to best use the technology tools available to them administratively, for communication, and for learning. The participants felt they needed additional training and ongoing support to remedy their concerns with technology. The participants were also bewildered by their students' inability to apply seemingly basic technology skills readily employed outside the classroom to their learning tasks.

The participants were uncertain about their role as they moved from their comfortable position as the traditional sage on the stage to the less familiar role as a guide on the side for students. Their new role took away some elements from the teaching process such as traditional lesson planning and the "performance part of it" as Carol noted. This resulted in a shift in control regarding learning where students were expected to be more independent and in charge of their learning. This shift contributed to the participants' feelings of uncertainty about their role in transitioning their students into the blended learning environment. Students were also experiencing a role adjustment, and needed guidance and strategies from their teachers to be successful in their new role.

Collaboration. Collaboration became a necessary strategy that the participants utilized as a survival skill when facing the challenges of lesson planning, gathering and creating instructional materials, helping students adjust to this new learning environment, and navigating the many new technology tools at their disposal. The participants felt overwhelmed with the many new expectations regarding blended learning instruction. The instructors had to plan differently for instruction in order to meet the needs of students within an asynchronous learning environment. The gathering of materials became an enormous task when considering the many topics that could be covered at any given time in a self-paced learning environment. The

participants learned to work together to streamline the planning process, and they shared learning resources to mitigate the challenges inherent to asynchronous pacing. The participants also collaborated about and with technology. Participants who questioned their technology skills sought out peers who could assist them. Those who were more skilled with technology, developed ways for the instructors to share learning resources and instructional plans via google classroom, google document, and email.

Technology. Technology permeated every aspect of the findings in the study. The participants anticipated using technology as a component of instruction prior to their involvement in blended learning, however, they discovered that technology was deeply embedded in other aspects of their blended learning experience as well. The participants had to expand their repertoire of technology skills beyond administrative tasks. The instructors had to utilize technology in new ways to foster communication with their students. Ultimately, the instructors came to view technology as an integral component and beneficial tool as they worked to facilitate a community of inquiry during the semester.

Pedagogy. The participants' pedagogy evolved through the semester as their approach to instruction became more student centered. This was most evident in the data collected from the participants' final interviews. Although each participant would be returning to a traditional non-blended classroom environment following the summer semester, the participants readily shared elements from their blended learning experience that they would now incorporate into their instructional craft. In one case, the instructor planned to video her classroom instruction so that students could have this example as a reference in addition to traditional classroom notetaking. Another participant expressed frustration at the district's arbitrary pacing guides requiring synchronous learning as opposed to asynchronous pacing matched to student learning needs.

The participants each progressed through stages that mirrored Guskey's Model for Teacher Change (1989) regarding their changed pedagogy. Initial uncertainty and even resistance to the blended learning pedagogy gradually faded as the participants could see evidence of success for their students.

Research Question Responses

A single broad research question regarding the experiences of first time instructors of a blended learning course served as the basis for the study. Four guiding questions supported the main research question. The sections that follow provide responses to each guiding question and include connections to the overarching themes from the cross case analysis.

Guiding Question 1. What Were the Instructor's Perceptions of Blended Learning Prior to their Involvement in Blended Learning? Three commonalities surfaced across all the participants' perceptions with each commonality linked to an overarching theme. Participants expressed neutral to favorable overall perceptions about the blended learning methodology prior to their participation in the blended learning environment. These perceptions were tempered, however, with feelings of uncertainty about how the method would be implemented and mild skepticism about its potential effectiveness for student learning. All of the participants noted that their perceptions were affected by their prior educational experiences, beliefs, and pedagogy. Finally, each of the participants expected that technology would play a central role in the blended learning methodology.

Change. Global perceptions of blended learning prior to participation ranged from neutral to enthusiastic. No participants entered into the experience with negative perceptions of the methodology. One participant expressed positive perceptions in her first interview stating that she "thought it was a great idea personally." She added that although she had no previous

experience with computer aided learning, she had “always wanted it.” Responses from less passionate participants were “honestly, I didn’t even think about it” and “blended learning to me was just a term.”

Despite their generally positive impressions of blended learning, participants wondered why the school division chose this methodology over traditional instructional approaches. Participants had reservations about the effectiveness of the methodology in regard to student learning. The participants expressed that their early perceptions of blended learning did not include a clear understanding of the fundamentals for implementing blended learning methodology. One participant stated “I wasn’t sure what it was.” While another lamented that “Nobody explained it.”

Uncertainty, collaboration, and pedagogy. Since all participants were novice blended learning instructors, they had no personal background experiences with the methodology to inform their early perceptions. Not only were participants new to instructing in a blended learning environment, none of the participants had experienced a blended learning course from the student perspective. This void in their experiences influenced their perceptions. In addition, participants noted exposure to the opinions of others, both staff and students, regarding their blended learning experiences. Participants admitted that their perceptions had been colored at least in part by information gained second hand from their peers and students. Participants noted the absence of background knowledge from personal experiences with blended learning was a challenge. One participant expressed that she had some reservations about the effectiveness of blended learning due to negative feedback from students who had been previously enrolled in courses delivered through the blended learning format. She shared “... I had heard a lot of kids have misconceptions or the kids saying that it was hard.” Another participant shared that her

prior successes using traditional instructional methods caused her to have doubts about the effectiveness about blended learning. Despite knowing that blended learning require a departure from traditional teaching practice, three participants initially viewed their upcoming teaching experience through the more traditional, teacher-centered lens. While two participants discussed blended learning from a student-centered perspective, their practice did not reflect an application of learner-centered methods.

Technology. Each of the participants knew that technology would be an integral component of the instructional process. All participants referenced technology in some way when discussing their early perceptions of blended learning, but they did not fully understand the role technology would play in their teaching nor did they realize how technology would impact the students' learning process. Mary's early perceptions about technology in the blended learning were that "students would be going back and forth between listening to me and using some sort of technology." Lori spoke about the software program and her perception that it would be insufficient to meet the needs of her students. Angel indicated that the integration of technology would create an environment where she would not be teaching all the time. These perceptions proved to be incomplete when considering the full impact of technology in blended learning.

Guiding Question #2. What were the preparation experiences prior to teaching the blended learning course? Reports from participants were saturated with concern with their lack of preparation for the transition into the blended learning instructional format. Although each instructor did receive a full day of training provided by the school division prior to the start of the semester, this training focused largely on the software program that would be used to deliver

content to the students. Little attention was given to the blended learning methodology nor the pedagogy linked with a more student-centered approach to instruction.

Change. Both teacher interviews and reflective journals revealed that teachers felt this training was not sufficient to support their transition to the new instructional landscape. Data revealed generalized feelings of disorganization and lack of preparation from the outset. Carol reported in her first reflective journal “I felt we were not on top of the game at the beginning and a good tone was not set.” These feelings persisted throughout the semester as participants worked through their respective courses. Lori’s remarks best summarize the feelings of participants regarding their preparation for blended learning. When asked about strategies in place to prepare and assist the instructors in their transition to the blended learning methodology, she relied “There were none. Some we learned along the way.”

Analysis of the data revealed four specific areas that all participants felt were insufficient to support a successful transition experience for them. Those areas include formal training, ongoing training and support, and preparation for how to help the students in their transition to blended learning. The paragraphs that follow expand on each of these topics and will outline connections to shared themes. The section concludes with insights regarding how this lack of training resulted in participants’ reliance on their mismatched pedagogy and second hand information from others as a guide.

Uncertainty. Participants reported an absence of background knowledge and experiences with blended learning both in their role as the instructor and in their earlier lives as students themselves. Without training and information to fill this vacuum, participants struggled with the mismatch between their traditional experiences and the student-centered pedagogy required of blended learning instructors. As a result, teachers reported a lack of empathy and understanding

for what their students were experiencing because they had no previous experience with blended learning. Carol shared following her second classroom observation, “You know, I’ve not taken an online class. I’d like to go through an entire Edgenuity class.” “I’ve never done anything with computer aided (instruction). I’ve always wanted it.” Carol further stated in her first interview, “I need to take a blended learning class myself.” Mary referenced her own experiences as a student. She recalled “As you prepare yourself to become a teacher, you look at the model you had when you were in school and everyone sat in rows and everyone was quiet and respectful and they did what the teacher asked.” Mary confessed that these experiences impacted both her early view of blended learning and her approach to instruction in the classroom. She learned through trial and error that a more student-centered approach was required with blended learning. Preparation for this shift could have eased frustrations and decreased trial and error periods for the participants.

Study participants reported one full day of formal training prior to the start of the summer semester. While the participants found the training helpful, the single day was insufficient, and did not adequately prepare them to teach their students in the blended learning format. This lack of formal training contributed to the enduring feelings of uncertainty expressed by each of the participants. Carol noted in her reflective journal that she struggled with a “lack of familiarity with the software at the beginning.” She further shared that additional formal training at the beginning would have been helpful. Carol stated “it was overwhelming because I had never seen the program before let alone know how to move around (the program).”

Lori also reported concerns with a lack of formal training. She disclosed, “There wasn’t any formal training. We had one day of ‘this is what summer session will look like’ and expectations.” Angel confirmed the inadequate time devoted to formal training, but expressed

less concern than other participants about limited opportunities for training. Holly confirmed by sharing “The first week or week and a half we pretty much had to figure it out on our own.”

Angel acknowledged she had some prior exposure to the software program and reported this likely contributed to her ability to utilize the software. Angel still struggled with taking full advantage of the technology based aspects of the blended learning course, but benefitted from some prior exposure to the online program.

Collaboration, technology, and pedagogy. Participants noted a need for ongoing support with various components of blended learning throughout the semester. Their needs included a hands on component that would provide support throughout their first teaching experience with blended learning. Participants felt like they didn’t know how to fully utilize the software program that was delivering the content to students, and were left to their own devices to acquire the needed information. Mary reported using “trial and error” as her strategy for overcoming the challenges associated with implementing blended learning. Holly expressed frustration with her inability to navigate through the software system bemoaning the large amount of time she routinely spent attempting to utilize the software system. She shared “You have to go into this screen, then this screen, then this screen, and this screen, and then you finally get to the grades. And you’re supposed to do this for everything they’ve done. It took me over an hour one day to go through that. It is really hard time wise.”

Participants also needed ongoing support for managing the student data within the software system. Carol reported in her second reflective journal “I don’t know how to access from the program to see what they are having problems with.” She further added, “I feel a lot more comfortable with the program, but there are plenty of features I still don’t know about.” When asked follow up questions in her second interview about the need for additional training

prior to beginning the transition to blended learning, Carol's response affirmed this need, but also highlighted the need for continued support as teacher's experienced the new instructional methodology. Carol shared:

That (referring to additional training prior to teaching the blended learning format) would have been helpful. I mean they gave us a one day kind of overview of what was going on. And they did a good job with that. The problem is that you pretty much have to dive in and use it and kind of see what happens when a student takes a test. Where's all that data going? How do you see it? And Access it? And See it? You kind of have to see it live." Carol added, "And it wasn't that the training was bad...it was just ...until you actually get in it ...it is such a big program.

Blended learning was a new experience for many of the students enrolled in the participants' courses. Participants reported that many of their students were unprepared for learning through the blended learning format." Lori expressed frustration at the students' lack of preparedness stating, "If they had before coming here had been given some type of instruction in as you're listening to the video...you know kind of tips on how to best..." Carol declared, "This (referring to transitioning students from traditional to blended learning) was the biggest problem we had." Participants reported that students were familiar with technology, but were not able to apply their technology skills effectively and productively in the learning environment. Students knew how to use technology for leisure activities, but struggled to carry over these skills into the classroom. For example, one participant noted that students would have no problem stopping and rewinding a Youtube video, but students seemed to need permission to stop and rewind instructional videos to gain clarity about difficult content. Angel noted that some students also struggled to take initiative with their learning. Angel noted that students felt it would be

“cheating” to utilize the internet to search for additional learning resources or information. As a result, these students appeared to staff members to be unmotivated.

The instructors’ own unfamiliarity with the methodology intensified the challenges for them as they attempted to assist their students with the transition. Instructors were surprised by their need to not only teach their content, but also teach students how to learn in the blended learning environment. Instructors felt that additional training and support for how to assist their students through the transition would have been helpful. Carol noted in her reflective journal “I have never taken a class with this software so I don’t fully understand the problems the kids have.” Angel noted that students didn’t understand the importance of the instructional videos and felt it was cheating to seek additional learning resources on the internet. Angel had to teach students through these challenges. Lori and Angel both expressed concern that students didn’t understand the importance of taking notes from the instructional videos. Their students didn’t automatically make the link between note taking in a traditional classroom lecture and note taking from an instructional video. Carol’s feelings provide a poignant window into the emotional stress this added component caused for her.

I don’t think I’m doing a good job. I’m not feeling...well...I’m very (silence).

I mean everybody probably thinks I’m doing just fine, but I just (pause) I know there’s tools out there that I’m not using. And I just know I’m (pause) I need more help with what tools I can use to help the students.

Guiding Question 3. What teacher role adjustment experiences confront the first time blended learning instructors? Each participant was faced with making dramatic changes to their teaching practice while teaching in the blended learning environment. These changes required the instructors adjust to new expectations and experiences in their role as the teacher. The

participants often described their experiences by comparing their role in the blended learning environment with their responsibilities in their former, more traditional, classroom. Their common experiences are described here in terms of how they contrasted the blended learning teaching methodology with more familiar traditional methods, changes in the instructors' relationships with students and colleagues, and transformed pedagogy.

Change and uncertainty. Perhaps the greatest challenge to the novice blended learning instructor was the alteration of the most basic day-to-day components of how learning was to be achieved in the classroom. As a result, participants often began their discussion of their role adjustment experiences in this realm. Participants noted several areas where their day-to-day instructional practice was at odds with their customary role in a traditional classroom. Those areas include instructional delivery, planning for instruction, and learning resources.

Participants learned early in their experience that content would be delivered to students in a vastly different manner with blended learning. Their role as the teacher no longer included being the primary agent responsible for the regular transmission of content to large groups of students. Some embraced this change, while others found it difficult to let go of this task. Holly expressed that she felt like a “babysitter” when not providing direct whole group instruction. She repeatedly stated concerns about not being in control in the blended learning environment, frequently feeling “pulled in ten different directions.” Mary talked at length about how the reduction in teacher directed instruction changed the interactions in the classroom. She noted that what she might have once considered misbehavior in a traditional classroom setting was actually academically focused collaboration between students. She found she had to overcome her reluctance to trust students to be in charge of their own learning in the new teaching environment.

Planning for instruction changed significantly for the novice blended learning instructors as well. Participants found that there was no place for traditional lesson planning in the blended learning environment. The asynchronous pacing of instruction made traditional whole group instruction impossible. When describing her shift away from providing direct whole group instruction, Carol shared, “All the students are in different places so it’s hard to jump back to teaching by hand.” Consequently, lessons were planned informally and sometimes spontaneously for small groups or individual students. Participants reported stress related the expectation for being prepared to address any component of their course content at any given time based on the learning needs of their students. This was both time consuming and intellectually demanding in terms of preparation for daily interactions with students.

Providing instructional materials and resources for students was an enormous concern for the participants. All of the participants spoke frequently about their seemingly endless search for supplemental instructional materials for their students. Participants felt this was also a time consuming process when compared with more traditional methods of instruction where a single set of materials might be used to accompany instruction on a particular topic. Preparing for multiple concepts simultaneously included the provision of materials supporting a variety of topics concurrently. Participants characterized this task was daunting, and grieved about their inability to use their traditionally planned lessons and materials.

Collaboration. Interactions with students could not occur in the same manner as in a traditional learning environment, which produced an additional role adjustment for the participants. Instructors’ interactions with students were examined through both classroom observations conducted by the researcher as well as through teacher reports in interview and reflective journal data. When observing in the blended learning classroom environment,

instructors' interactions were first classified as either occurring with the whole group or students, small groups of students within the blended learning classroom, or one-on-one interactions between one single student and the instructor. Interactions were then further classified into subcategories within each of the group size categories. Those subcategories defined the type of interactions. Interactions were ultimately classified as monitoring interactions where instructors passively moved about the larger classroom providing minimal guidance, directive exchanges connected with classroom management and organization, instructional communications linked directly to content, interactions related to student progress, and blended learning strategy instruction including technology use, software orientation, or adjusting to the blended learning methodology. Table 3 provides an overview of the observational data collected from each participant.

Table 3

Classroom Observation Data: Instructor Interactions with Students

	Whole Group					Small Group					One-on-One				
	M	D	I	PE	S	M	D	I	PE	S	M	D	I	PE	S
Lori	4	1	0	0	0	1	0	1	0	0	0	0	9	2	1
Mary	3	1	0	0	0	2	0	0	0	0	0	0	10	1	2
Carol	2	1	0	0	0	0	0	1	0	0	0	0	9	2	3
Holly	2	1	0	0	0	0	0	0	0	0	0	0	4	4	0
Angel	1	0	0	0	0	0	0	0	0	0	0	0	15	3	2

Note: M denotes Monitoring Interactions, D denotes Directives, I denotes Instructional Interactions, PE denotes Progress and Encouraging Interactions, and S denotes Blended Learning Strategy instruction.

These data point to several central ideas regarding instructor interactions with students. First, teacher interactions with students occurred predominantly in one-on-one settings. Sixty-seven individual one-on-one interactions were noted by the observer across the five participants. This is in stark contrast to the five small group interactions and fifteen whole group interactions observed. It should be noted, however, that these data do not include interactions between instructors and their students via email and the google classroom. Those interactions were not observed in the classroom setting. Given the nature of email communication, however, it is likely that the majority of those interactions with students were one-on-one as well. Angel described one such example when she discussed how she worked with at student through Google Classroom. She described this student as engaging in the online environment and stated she looked forward to the questions he posed through Google Classroom.

Interview and reflective journal data yielded greater insights into the instructors' perceptions about their interactions with students. Four of the five participants expressed positive perceptions regarding their interactions with students, with all participants noting the impact of working with students primarily in one-on-one instructional settings. None of the participants discussed challenges due to reduced opportunities for interactions with students. Although Cheryl noted that her interactions with students "didn't feel the same" but she quickly added, "not that it was bad, I guess, but it just wasn't the same."

In contrast to the original proposition regarding interactions, the five participants felt that their student interactions in the blended learning environment improved learning opportunities for students. Lori reported, "... I think the blended learning format provided more availability of teachers to students." She pointed to technology as an asset that provided many tools for increased interactions with students. Angel talked at length about how she built relationships

with her students through interactions. She believed that the blended learning environment allowed her to establish stronger relationships with her students. She summarized her thoughts when she shared, “I felt like there’s more relationship building in blended learning because you have to deal with the student one-on-one.” She added when comparing blended learning to her experiences in a traditional classroom, “A traditional setting, although you still have to build the relationship, but it is...you know, I would say that it is hard to develop that relationship which I have developed now.” Mary’s experiences were similar to Angel’s, however, she expanded upon Angel’s thinking by adding how her interactions led to relationship building that ultimately impacted student achievement. She shared the following example:

....it’s a little different because we know the students so personally, so you have to again get to know the students before you can give them assignments or resources. For example we had a student this summer that understood the coursework very well, but really struggled with paying attention and doing what he was supposed to be doing and not getting in trouble. And we noticed that he was an incredible artist and he had drawn wonderful pictures of us nagging him over the past few weeks. Wonderful cartoons! (chuckles) And so we figured what a great...if that’s his passion and what he loves since he will refuse to do his work so he can draw these cartoons, why can’t he do history through cartoons. So he created his own resources which is great to have students create their own resources that you’ll be able to use for later students who may have the same problem.” “So he’s actually created a whole set of new resources that history teachers will be able to use this year just kind of poking fun at history from his anti-history point of view.

Participants continued to view relationships as vitally important in the learning process in both blended learning and traditional learning environments. The instructors experienced changes in how they formed relationships with their students as well as changes in their collegial relationships with their peers. Three significant ideas regarding relationships surfaced repeatedly during the semester. The participants experienced a new process for building relationships with students, improved relationships with students overall, and were able to develop stronger collaborative relationship with their fellow teachers.

First, the process of building relationships with students in the blended learning environment was different than in a traditional classroom setting. Participants had to adjust their methods for forming relationships with students as they transitioned to blended learning instruction. For some participants, this was a concern early in the semester. One participant discussed how she initially struggled with not knowing the students and described her relationship building process as “it didn’t feel the same.” As the semester progressed, however, participants discussed new strategies they had used to form those relationships. For example, the participants capitalized on opportunities for one-on-one instruction with students. The participants also had to come to terms with using technology as a tool to bridge their perceived relationship gap with students in the online environment. At the conclusion of the semester, two participants discussed in the focus group interview how much they looked forward to interacting with one particular student online through google classroom. Carol shared, “We all enjoyed answering him because he had such good questions.” She further acknowledged that she found building relationships through a greater online teacher presence was an advantage for some students.

Second, relationship building with students improved in the blended learning environment despite the lack of daily personal contact between teacher and student. Angel described the relationships with students compared to the traditional setting saying “in a traditional setting, although you still have to build the relationship, but its (pause) you know I would say that it is hard to develop the relationships that I have developed now.” Instructors and students interacted primarily in one-on-one or very small group encounters. These encounters occurred over prolonged discussion periods as opposed to simple question and answer exchanges. The participants reported that this shift in communication enabled relationships to be forged differently, creating more meaningful connections between staff and students. Angel noted “I felt like there’s more relationship building in blended learning because you have to deal with the student one on one.”

Lori stated that the blended learning format provided more availability for teachers to students. She outlined a variety of communication strategies such as google email accounts and messaging through the google classroom in addition to face to face interactions. The content of interactions often went beyond content related instruction. Participants were observed encouraging students and congratulating them on their successes. Mary reported having much more one-on-one time with students which allowed her to get to know them better. She provided an example of getting to know that one of her students was an artist. Based on this knowledge gained through the relationship, Lori allowed the student to demonstrate his knowledge in a manner that better suited his learning style. He was allowed to utilize his artistic talent to create a history comic book containing the content from his instruction.

Finally, relationships between the instructors became more important as the instructors learned to work collaboratively through the semester. The demands of the blended learning

environment created a need for collaboration, and the participants each recognized the benefit of teamwork and working together through the semester. Angel doubted her level of proficiency with technology sharing that she was not really good with technology, but “working with the teachers and working with the students helps me a lot, and you know, teach (sic) me to become an even better teacher.” Mary also talked about the importance of teamwork. She noted:

It really helps if you have a group of people who are willing to start blended learning with you. Even if it's different classes or people just from your department. But it really helps to have other people because if you are trying to blend all on your own, you can do it, if you don't have a life!

Pedagogy. Each of the participants in this collective case study initially experienced some level of incongruence between their teaching philosophy of teaching and learning as compared to the pedagogy required in the blended learning environment. Participants began their blended learning experience with background knowledge and training from the teacher centered perspective. Even though two participants verbalized some of their ideas from a student-centered perspective, they were not prepared to implement these ideas in the blended learning context. A blended learning environment requires the application of a more student-centered approach. Holly struggled the most with this mismatch in pedagogy. Holly preferred a more directive approach providing more control and structure. This was evident when she shared:

If I was teaching in a classroom where I gave them a homework assignment, they know what to do tomorrow morning. Point blank. When you walk in here, it is due. With this (referring to blended learning), they don't have quite that much structure. A lot of kids, that's what they need. They need the structure. They need somebody telling them nope

its due tomorrow.” She went on to say “In my room, I have control over my students. In a setting like this, we don’t have control over our students.” “I don’t think they really look at us as their teacher.

Not all participants viewed the pedagogical shift in a negative light. In contrast to Holly, Mary embraced the pedagogical shift. From Mary’s perspective:

We become their coach. We encourage them and tell them that they can do this. And we try and change their study habits, their skills, and to empower them and with that we try to give them some power. And it’s great to see them taking it and running with it. Students that, you know, you traditionally don’t want to give power to.

Mary continued:

I really think that obviously this (referring to blended learning) is the way things are going. Why should I stand up and detach the lesson and say the same things five times a day when I could say it one time and they can look at it, and they could review it and everything. It is going to be interesting because this is not the mindset of any of us.

As a result of these shifting perspective, teaching practice changed for four of the participants. After the conclusion of her blended learning experience, Carol shared how the experience impacted her teaching when she returned to her more traditional classroom setting.

I have started recording some of my lessons and posting them on Youtube. So my kids who are sick or had to miss class for some reason, or even the kids who were there and were taking notes but during homework they can’t remember how that problem was solved, they can watch me do it again. I thought it would be beneficial when they had a question you could always just go back and rewatch the video. And I just started thinking, wow. I bet they would like to rewatch how I worked some problems out.

Carol further added “This (referring to blended learning) takes away the performance part. We’re really not doing much of that. You can record your own video and then that’s done.” “I’m here to guide and help.” Lori embraced the change in her philosophy stating “I’m glad the county is moving this direction. I would definitely do this again. We saw first-hand that students learned in different ways. If we allowed them choice, they owned their learning more deeply. They took ownership more.” Angel also acknowledged the difference in pedagogy. When discussing changes to her practice Angel affirmed her shift away from a more traditional teacher oriented approach. She described her experience saying:

...with this blended learning I can actually assign students any activities they want depending on what a topic is all about and still be able to manage my classroom as well.”

The teacher is just there to really see the progress of the student and you know, the role of the teacher is to just work in such a way that the student would be better on this topic.

You just have to check what their outputs are and see where you can extend your help so they will be able to improve on the things or concepts they are weak at.

Guiding Question 4. What strategies do first time blended learning instructors employ in transitioning themselves and their students to the blended learning environment? The five participants expressed a range of strategies used in their own transition to teaching in the blended learning format. Four participants found change to be an inherent component in technology use, planning approaches, and methods for accessing and retrieving learning resources to be beneficial. All five participants found collaboration and teamwork with their fellow blended learning instructors as a very effective transition strategy. The paragraphs that follow provide an in-depth discussion of the participants’ themed adjustment strategies. The second component in this guiding question addresses how the teachers helped their students adjust to the blended

learning concept. Concluding this guiding question's results is a section dedicated to specifically applicable strategies participants reported using to help students make the adjustments.

Change. Instructors noted feelings of anxiety when describing how they prepared for blended learning instruction. Each participant indicated that instructional planning for blended learning required a contrasting approach when compared to planning for traditional instruction. The participants' approach transformed from one grounded in traditional planning to innovative preparation. Lori understood this subtle distinction and often used the word preparation in place of the word planning when discussing her teaching. The individualized and asynchronous structure of the blended learning semester meant the instructors had to be prepared for teaching in a completely different way. The participants found that preparing for blended learning was a much bigger task than planning for traditional instruction because the instructors had to be primed and knowledgeable about a broad range of topics within their content area at any given time. Mary shared, "I think the misconception is that blended learning is gonna make things easier on the teacher. And that's absolutely not the case cause like I said, you have to be more informed about your subject." Mary continued, "You have to know your material a lot better than what you would in a traditional classroom. You really have to know everything." Holly referenced some of the challenges that she faced when attempting to prepare for instruction within the asynchronous learning environment. She noted the difficulty of working with students in small groups when students were in different places in the curriculum. Recognizing the need to know the whole picture from start to finish, but being ready to guide students from start to finish with individualized pacing was demanding for the participants. Meeting this challenge required teachers to knowledgeable experts across the curriculum all at once rather than progressing through the curriculum at a predetermined pace and sequence.

Uncertainty. Although some participants embraced technology as a helpful tool for their transition earlier than others, each the participants in the study discovered ways that technology could assist them with the new teaching methodology. Interestingly, technology emerged in the data analysis as both a separate and unique theme as well as a sub-component within the additional transition strategies for teachers. In order to derive the full benefit from their strategies for planning, accessing resources, and collaboration, teachers had to accept and embrace the technology. In many cases, this required parting with old habits rooted in traditional teaching methodology in favor of technology enhanced strategies.

Mary acknowledged that one of her early “mistakes” was starting with a mindset where technology was the core program rather than viewing the technology as a tool to improve teaching and learning. She learned that using the internet in her quest to find supplemental resources for her students was superior to her traditional methods for locating learning materials for her students.

Carol’s view of the technology evolved from a place of uncertainty and discomfort to a place where technology was a more prominent component of instruction in both blended and traditional learning environments. Carol realized that technology could streamline components of her instruction. She further reported recording some lessons and posting them on youtube for students who needed review or who may have been absent. Using technology as a tool in this way changed Carol’s approach to instructional delivery. She relayed that changes in her instructional practice were largely due to benefits she witnessed for her students. She and Mary both noted using the internet as a teacher resource and found internet based sites such as Khan Academy helpful. Carol also indicated that the electronic grading was a very helpful tool

Angel was also initially insecure in her ability to utilize technology effectively sharing “I’m not really good with technology.” Despite her apprehension, Angel used the internet as a transition tool to locate technology based resources such as Khan Academy for her students. Angel and Lori both explained how they were able to shift from customary methods for communication and collaboration to technology based tools such as google docs, google drive, and google classroom.

Collaboration. Participants were consistent in their reports of how collaboration and teamwork with their colleagues helped them transition from a traditional instructional setting to the blended learning environment. Every participant divulged that they had worked with at least one peer, and Mary felt so strongly about the benefits of collaboration and teamwork that she advised against attempting blended learning without the support of colleagues who would also be involved in blended learning. She remarked that even support from peers involved in the blended learning methodology but teaching in a different content area would be preferable to attempting blended learning with no opportunity for peer support at all. Her sentiments were expressed in her interview when she shared, “...it really helps if you have a group of people who are willing to start blended learning with you. Even if its different classes in your department. But it really helps to have other people because if you are trying to blend all on your own...you can do it...if you don’t have a life!” “If you would like to blend successfully, have everything that a student is going go need, and the more people that will blend with you, the better off you are.”

Although some participants noted drawbacks to the centralized classroom location sigh as the logistics of being away from their own traditional classroom and materials, the combined classroom environment was fertile ground for promoting collaboration and teamwork among the

instructors. Carol and Angel discussed ways they had worked together during the focus group interview. Carol pointed out, “We were all in the class together, so if an Algebra II question was asked, any of us could jump in and help.” Carol indicated through other data collection forums “We worked together” and “We can help anyone who needs help since we are here together.” The collaboration and teamwork that developed over the course of the semester appeared to happen spontaneously and out of necessity. Lori shared that she was able to help student enrolled in a variety of courses explaining, “This week I was able to help on the math side.” Angel concluded, however, that a structured and purposeful time set aside for collaboration would have been helpful. She felt strongly about this and shared that she had asked the administration for times to “get all the teachers together” and “talk about the students.”

Participants also learned how to prepare for instruction together. Lori reported, “I will now plan lessons with teachers.” She also began to think about collaborative efforts that would reach beyond the current semester. When discussing collaborative planning, she added “Once we do it, then we’ll have it for future years. We will have the resources for the next year.” Lori further shared “This week I was asked to gather additional resources that all the summer session teachers used with students outside of Edgenuity.”

Technology. Technology was both a challenge and an asset for the participants regarding learning resources. Participants found the core software program to be inadequate to completely meet the learning needs of their students. The program contained insufficient learning resources, and as a result, the participants felt overwhelmed by their need access and provide quality supplemental learning resources for students above and beyond what was provided by the core software program. Beyond knowing their content broadly as discussed in the previous section,

teachers also had to maintain a rich reservoir of content support materials readily accessible at all times. Holly's frustration with this challenge is evident in the following statement:

Because now they're doing their work on the computer, and when they do poorly on something we have to go find supplemental stuff. And then we have to come up with more stuff. I mean we've got to come up with new quizzes or assignments. If I was teaching that class in my classroom, I would already have that stuff.

While Holly remained trapped in her state of frustration with regard to locating resources, the remaining four participants utilized technology as a transition tool when searching for and storing learning resources. Participants often used the internet to research and locate specific resources for a specific student need. Mary shared, "I can use the internet to find resources that will work for that student." Angel also was motivated to "go as far as finding different resources online just to make sure my students will learn." Carol also referenced specific online sites such as Kuta as an online source allowing her to create individualized math activities for students.

In addition to using the internet as a search tool, participants found web based resources to be most helpful in developing their readily accessible storehouse of resources. Looking for ways to efficiently manage the time consuming search for resources led participants to web based resources such as Khan Academy where a broad range of resources covering many content areas could be accessed from a single site. Each of the participants referenced the benefits of connecting to sites such as Khan Academy during the study.

Pedagogy. Pedagogy became a factor in preparation for instruction as well. Shifting their focus from planning to preparation transformed their approach to instruction. The preparation mindset allowed the instructors to approach instruction based on student needs rather than the dictates of a district pacing guide. Angel discussed the traditional lesson plan in terms

of the bell ringer activity presenting content, and preparing “good activities.” Angel went on to note that in the blended learning environment, “You have to check what their (referring to students) outputs are and see where you can extend your help so they will be able to improve on the things or concepts that they are weak at.” Preparation for instruction from this perspective had to be predicated on student needs rather than being driven by a schedule or what is dictated in a school district pacing guide. Following this change in approach, preparing for instruction became a time consuming search for materials and resources on a variety of topics rather than planning for a structured sequence of presentations on a single topics one after the other.

The instructors used both technology and teamwork to mitigate the demands on their time when preparing rather than planning for instruction. Instructors used google to share lesson ideas and resources with their colleagues. In addition, technology enabled the participants to save and store their plans for use in future blended learning semesters.

Transition Strategies Instructors Used to Assist Students. The participants learned early in the semester that their students required their assistance with transitioning to their new student roles in the blended learning classroom. They began to share early in the study that some of their students were clearly not prepared for some aspects of blended learning. In her final interview, Carol declared that “this (referring to the students’ transition to blended learning) is the biggest problem we had.” Angel shared that she believed the students’ transition in many cases was more difficult than the challenges they experienced as instructors. As a result, the instructors felt compelled to develop strategies during the summer session to guide students through their shift from traditional to blended learning. The common ideas from this strategy development included learning strategies, orientation to the online component of the program, and student motivation and accountability.

Orientation to blended learning. For many students, the summer session was their first experience with blended learning. Because of their inexperience with the teaching methodology, the instructors felt the need to address many basic transition issues with students before moving ahead with the content instruction for the course. At times, the students' inexperience led to disruptions later in the course requiring additional guidance from the instructors related to transition concerns. For these reasons, the instructors strongly recommended that a formal orientation be provided to all students prior to taking a blended learning course. Carol shared when discussing an orientation, "That's what this has been lacking. And if this helps do that, it would be great." This strategy was not actually used by the instructors during the summer session, but is included here due to the strong recommendations of the instructors and their numerous references to their work with students in this area. Many of these references are included within the remaining paragraphs of this section of the research. It is important to note that although the strategy instruction employed by the instructors in outlined in the subsequent paragraphs, much of this instruction may not have been needed had an organized orientation occurred. The participants agreed that providing an orientation to students would likely prevent many of the transition issues they encountered. For example, Carol noted, "They don't get the blended part of blended learning. They're all computer or all paper. Adding working the math problems on paper (to the computer based instruction). They don't quite get that. That's something we need to work on."

The participants referenced several areas that could be addressed during an orientation that were troublesome throughout the course. Both Carol and Angel felt that the assessment process was a concern that could be addressed through orientation. Angel noted that the students didn't understand how the pretesting process would impact their instruction. Students

were accustomed to everyone receiving the same instruction regardless of need, and as a result, did not understand how pretesting would inform their instructor's planning for their instruction. Carol referenced an overall lack of experience with online testing for her students, and shared that an orientation to online testing was important. All of the participants noted that students struggled with productively accessing the instructional videos. Angel also pointed out that students didn't understand that the blended learning instructional format encouraged them to be more independent in their learning. Rather than embrace this independence, the students remained passive in their approach. Some even viewed seeking out information through other resources such as the internet as cheating. Finally, Mary noted students would benefit from a bit of orientation to the tools provided in the software. For example, Mary stated "I suggest to them to open the transcript window and read along while they watch the video, taking as many notes as possible."

Learning strategies. Each of the participants expressed alarm with their students' inability to productively access and benefit the instructional videos. In many cases, the students didn't pay attention to the instructional videos. Carol said, "A lot of kids at the beginning weren't paying a whole lot of attention to the videos and they were just waiting to get to the test so they could take the test." Carol was bewildered by students' ability to watch and rewind a Youtube video providing information on a variety of topics, but those same students were unlikely to apply the same strategy to the instructional videos. Carol shared the experience below the occurred as she attempted to guide a student through this instructional challenge.

They don't know how to use the computer productively. Also, "I don't think they used the technology. We think they know how to use computers and everything, and I don't think they really ...but they know how to do some stuff, but not how to use it

productively. Like I said (to a student), hey this is great because if you space out, you can just back up (referencing the videos) and listen to them again. And they (the students) were like...I never thought of that!

Angel concurred with Carol's account regarding the instructional videos. She noted with surprise that students, "Like they can actually click and play the video and not pay attention to it. You can see that in the assessment." Later in the discussion Carol added, "Students don't understand the importance of the videos."

Lori experienced similar hurdles in working with students regarding the instructional videos. She too found that her students did not readily take advantage of opportunities to rewind and review the instructional videos. In addition, Lori expressed frustration at students' inability to take notes from the videos. She shared, "I never quite got some of them to realize that while they were watching the instructional videos, how much they got out of it depended on them taking notes and pausing and rewinding."

Student motivation and accountability. While each instructor reported concern about student motivation and accountability, it was not an issue for all students. The participants observed a distinct difference between those students who were taking a course for the first time and those who were repeating a course due to previous unsuccessful attempt at taking the course in a traditional setting or earning failing score on the end of course Standards of Learning test. From the participants' perspectives, first time course takers consistently had greater motivation and accountability. From the instructors' perspective, those students who were repeating a course displayed less motivation and were less accountable for their own learning. These students, known as repeaters, required much more attention from their instructors. Holly shared when discussing the motivation of repeaters, "They have to learn how to be motivated and

driven, and they have to learn how to be productive on their own...” Angel had a similar experience and shared that she had to teach her students how to be independent learners rather than passive receivers of knowledge. She concluded, “Students need to know how to take initiative in their learning. Student ownership is needed in the learning process.”

After monitoring student outcomes, Lori shared, “I’ve noticed that all of those new students (first time course takers) made A’s and B’s. I helped a few of those at the beginning and they said ‘Could you set my threshold high because I want to make an A in the course.’ Which was totally different from another student I’ve been trying to help.” Mary also noticed that the first time course takers from her class roster earned A’s or B’s. Finally, Holly observed that first time course takers would often finish the course “in no time flat” with minimal interventions from instructors.

Both Carol and Mary concluded that the students’ previous and sometimes unsuccessful learning experiences impacted their motivation. Carol remarked that first time class takers seemed inherently more motivated than the repeaters surmising that they did not come to the course with prior negative experiences. Mary’s perceptions mirrored Carol’s ideas about motivation. Mary concluded “...they don’t have that feeling of empowerment where they think that they can do it on their own. Most of them, especially in the summer school situation, are here because they failed a class. So they feel like they’re not a good learner and they feel like they need somebody with them all the time or they won’t be successful.”

Summary

This qualitative collective case study sought to investigate the experiences of high school instructors providing instruction in a blended learning environment for the first time. The study

was framed by a single research question: What are the experiences of first time high school instructors of a blended learning course? The following four guiding questions clarified the scope of the research:

1. What were the instructor's perceptions of blended learning prior to their involvement in blended learning?
2. What were the preparation experiences of first time blended learning instructors?
3. What teacher role adjustment experiences confront the first time blended learning instructors?
4. What strategies do first time blended learning instructors employ in transitioning themselves and their student to the blended learning environment?

The perceptions of blended learning expressed by the participants prior to the study were generally favorable. Participants did express, however, reservation and concern about the school division's reasoning for implementing blended learning. The participants felt they did not have a complete understanding of blended learning and how to implement the methodology effectively. Due to the absence of personal experiences with blended learning, the participants allowed their experiences with traditional learning environments to influence their perceptions and practice. Included in the participants' initial perceptions about blended learning was the expectation that technology would play a central role in the blended learning instructional process.

The need for additional preparation and training for their work in the blended learning environment was reported by each of the participants. An initial one-day training was provided by the school division in a traditional format, and participants found this training experience to be grossly inadequate. Participants also reported their desire for training throughout the semester, indicating they were often learning on their own through trial and error. The desire for

improved initial formal training as well as opportunities for ongoing training and support surfaced as a common concern across the cases.

The participants demonstrated changes in how they interacted with students in the blended learning environment. While initial propositions on the part of the researcher as well as initial reports from the participants pointed to potential challenges related to these changes, this was not supported by concluding data. The participants found that the changes in their interactions with students in the blended learning environment produced benefits rather than adding challenges in the blended learning environment. Those benefits included improved instructional outcomes due to greater availability for one on one interactions with students and increased opportunities for relationship building with students.

The instructors experienced significant role adjustments when transitioning from traditional classrooms into the blended learning environment. The participants utilized their traditional classroom experiences as a frame of reference for contrasting the differences between the two learning environments. For the participants, instructional delivery was largely achieved via the computer software program rather than directly from the instructor. The instructors found themselves serving in the role of a learning coach or facilitator rather than provider of direct instruction. The participants found the same to be true when planning lessons and gathering resources. Typical lesson planning for whole group instruction had to be abandoned for more individualized planning. Supplemental resources were selected and provided individually as well. Resources were provided only to those who needed the additional information or activity, and these were presented according to the students' individual learning schedules.

Relationships and interactions changed in the blended learning environment as well. Participants found that changes in the instructional delivery format promoted more one-on-one interactions with students. These individual personal interactions enabled the teachers to form deeper relationships with students. Ultimately, the participants believed this improved instructional outcomes for the students.

Participants found the need to develop transition strategies for themselves as well as their students as they experienced blended learning for the first time. Participants reported that developing collaborative relationships for instructional planning and working through issues was beneficial. Instructors worked together to locate instructional resources as well. The instructors noted that their students were not adequately prepared for the transition from the traditional classroom setting to the blended learning environment. This lack of preparation impacted the instructors' ability to effectively implement the blended learning program. As a result, the instructors had to begin with or return to orienting the students to the blended learning program before embarking on content instruction.

Guskey's research (1989) into teacher change suggested that teachers encounter a unique change process. The findings in this collective case study concur with Guskey's assertions. Guskey's model for teacher change is developmental and included the following stages: staff development, change in classroom practice, change in student learning outcomes, and change in teacher beliefs. The developmental nature of the model confirms that teachers typically progress through each stage prior to achieving enduring change in teacher beliefs and the application of pedagogy. The participants in this study each began their journey from traditional classroom instruction into blended learning instruction with the first stage of Guskey's model: professional development. Each participant that completed the study moved through the developmental

stages along Guskey's continuum of teacher change. Their development was asynchronous with some participants completing the change process earlier than others. At the conclusion of the study, two participants reported significant changes in their pedagogy. In addition, the teaching practice of these participants was transformed based on their experiences and progression through the change process.

From the coding and analysis process, five broad themes emerged: change, uncertainty, technology, collaboration, and pedagogy. Change appeared as a driving force in every area under examination in this study. The participants faced change in very concrete ways as they adjusted their lesson planning and engaged with students in a completely new learning environment. The participants also grappled with change on a more personal level as they journeyed through a unique change process that transformed their instruction, their interactions with students, and ultimately their pedagogy about learning.

Linked to change were enduring feelings of uncertainty. The participants were uncertain about nearly everything related to their blended learning experience. Participants questioned the effectiveness of the online blended learning program as well as their ability to successfully teach in the blended learning environment. The participants lacked confidence in their own technology skills and were tentative at best with navigating through the online component of the course content. Participants felt ill-equipped to manage the new instructional environment.

Technology emerged as a unique theme because participants viewed technology as both a positive and negative force in their experience. Participants expected that technology would be an integral component of the blended learning experience, however, they were surprised at the degree to which technology was involved. On the one hand, participants questioned their ability to effectively utilize the technology as required while instructing through the blended learning

format. Many expressed concern with their own lack of proficiency. On the other hand, participants were also quick to point out the benefits of utilizing technology to streamline some of the many new tasks for them as blended learning instructors. For example, participants utilized technology for lesson planning and the sharing of learning materials. Technology also enabled them to work from home and be in contact with students via google classroom and email.

Collaboration became a central component of the participants' instructional practice. The participants felt overwhelmed with the many new skills they had to acquire in order to be successful as a blended learning instructor. This caused teachers to naturally seek out each other for assistance. In addition, the centralized classroom environment removed many of the barriers for collaboration that are present in a traditional classroom where walls and doors separate teachers.

Finally, the participants gradually moved away from their teacher-centered beliefs about instruction. Experiencing a change process where they could see the outcomes of the student-centered learning environment altered the participants' belief systems in a way that produced a desire for enduring change in their practice.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Overview

The increased use of technology in schools has led to a variety of instructional options for teachers and students. Blended learning is one innovative option that has gained in popularity in recent years. As blended learning programs are introduced and integrated into typically traditional school settings, challenges to traditional instructional practice have emerged. The classroom instructors are at the forefront of these challenges, as they transition from traditional to blended instruction. The purpose of this study was to investigate the transitional experiences of first time blended learning instructors at the high school level. This chapter includes a summary of the findings from the research, discussion regarding these findings, the relationship of findings to pertinent literature, implications derived from the research findings, and study limitations. The chapter concludes with recommendations for future research.

Summary of Findings

This qualitative collective case study was framed by a single research question: What are the experiences of first time high school instructors of a blended learning course? Four guiding questions provided additional focus for the research. A summary of the findings related to each research question are included in the paragraphs that follow.

Guiding Question 1

What were the instructor's perceptions of blended learning prior to their involvement in blended learning?

The participants reported generally favorable perceptions of blended learning prior to their teaching experience with the blended learning methodology. While some participants

expressed uncertainty regarding the specific manner of implementation, none articulated any negative perceptions of the blended learning method of instruction. The participants' perceptions were influenced by their prior experiences in education, both as a student and as instructors. Finally, each participant perceived that technology would play a large role in the blended learning methodology.

Guiding Question 2

What were the preparation experiences of first time blended learning instructors?

The participants consistently reported feeling unprepared for their transition into the blended learning environment. The full day of training that was provided was insufficient in meeting the instructors' preparation needs. In addition, the instructors noted that a more comprehensive approach to the training, focusing on aspects of the transition beyond the technology components would have been beneficial. Participants reported that additional training emphasis related to the blended learning methodology and student-centered instruction was needed. Participants also shared that ongoing training and support throughout the semester would have enhanced their teaching experience. Finally, the participants shared their surprise with the need to provide training and support for their students who were also unprepared for their transition to blended learning. An absence of background knowledge and personal experience with blended learning for both students and instructors compounded the feelings of uncertainty and concern regarding their preparedness for blended learning.

Guiding Question 3

What teacher role adjustment experiences confront the first time blended learning instructors?

The instructors faced significant role adjustments that impacted their experiences with the basic teaching methodology, their relationships with their teaching peers and students, and in how shifts in pedagogy transformed their approach to instruction. In each of these areas, instructors made comparisons to their previous teaching experiences in traditional settings when describing their role adjustment challenges. The instructors described role adjustments related to the day-to-day activities of teaching such as instructional delivery, planning for instruction, and locating and using learning resources. Role adjustments concerning relationships were two-fold. The participants found that relationships with students remained important in the blended learning environment, but were inherently different when compared to traditional learning environments. The instructors discovered that the relationships were formed individually rather than through large group experiences. In many cases, participants believed the individual relationships formed with students were more productive and effective than the relationships typically formed in traditional classroom settings. The instructors' relationships with their teaching peers shifted as well. The blended learning environment afforded the instructors with greater opportunity to work and plan collaboratively. This opportunity combined with the previously described feelings of lack of preparation resulted in greater collaboration and teamwork among the instructors.

Guiding Question 4

What strategies do first time blended learning instructors employ in transitioning themselves and their students to the blended learning environment?

The participants reported benefitting from transition strategies for themselves in four broad areas: technology, planning, learning resources, and collaboration. The participants came to realize that technology was a powerful tool for use in the blended learning environment.

Technology emerged as both a stand-alone strategy for the instructors as well as a supporting component of the additional transition strategies employed. Due to the asynchronous, individualized nature of blended learning, the instructors reported that traditional lesson planning was ineffective in the blended learning environment. As a result, the instructors adopted an innovative preparation approach. Preparing for instruction rather than composing a structured lesson plan allowed the instructors to keep the larger content picture in mind while addressing a variety of instructional needs simultaneously. Addressing this task required that the teachers be knowledgeable about content across the curriculum and able to move from topic to topic as demanded by student needs. Traditional pacing and sequencing of content was not applicable in the blended learning setting. Movement away from the predetermined pacing and sequencing of instruction led to challenges with providing appropriately timed learning resources for students. Rather than simply preparing the learning materials for a sequence of single lessons, instructors had to maintain a rich supply of materials on many content topics concurrently.

Each of these challenges led to the need for collaboration and teamwork among the instructors as a vital transition strategy. Feeling unprepared and overwhelmed for the demands of blended learning, the instructors learned to work together as they transitioned towards effectively utilizing technology, preparing for instruction rather than planning lessons, and developing pools of learning resources to share rather than adhering to prescribed timelines for lesson delivery. The instructors learned to embrace collaboration in the blended learning environment as opposed to the independence and isolation that many teachers experience in the traditional classroom environment.

The instructors realized the need to utilize strategies to transition their students into the blended learning environment. Many students, like their instructors, had no previous experience

with blended learning. As a result, the instructors found themselves providing orientation information and guidance to their students throughout the course. First and foremost, the instructors felt that an orientation to blended learning for prospective students would have been beneficial prior to the start of the summer semester. The instructors also found that students required guidance related to blended learning strategies. For example, the students often struggled with productively utilizing the instructional videos. Finally, the instructors perceived student motivation and accountability were perceived as a challenge needing their attention. Students appeared ill-equipped to handle the level of independence afforded and initiative required in the blended learning environment.

Discussion

The transition from traditional instructional methods to a blended learning methodology placed the teachers in this study in an environment saturated with change. The participants experienced changes in their physical classroom environment, lesson planning, instructional delivery, instructional resources, and in how they interacted with their students.

Richardson (1988) held that teachers often rely on their background knowledge and personal experiences when making instructional decisions, and may be reluctant to change until they are sure that the changes will have a positive impact on student learning. In this case, participants were hesitant to make changes to their practice and relied on their background knowledge and experiences as a frame of reference for their work. Participants thought about their experiences with educational practice as teachers, but also thought about their experiences as students themselves. Carol explained how she was able to work independently and excel as a young student. She openly shared that the positive impact from this experience influenced her initial positive perceptions regarding blended learning. Another participant explained that her

own learning style impacted by ADHD negatively colored her initial impressions of the blended learning classroom environment. Adding to her experience base with blended learning allowed her to change her view.

Guskey (1986) believed that change can bring about anxiety and can cause teachers to feel threatened by change. Although the participants in this study expressed positive perceptions of the blended learning methodology at the outset of the semester, they also expressed varying degrees of anxiety and uncertainty related to the new practice. Some participants were unsure of themselves and expressed skepticism regarding their effectiveness in regard to student learning.

Guskey (1989) also proposed that teachers experience a unique change process that links lasting change in teacher beliefs and practice with student learning outcomes. Guskey's Model of the Process of Teacher Change (1989) recognized the distinct nature of change within the educational environment and outlines a developmental process that teachers work through when experiencing change. Guskey's model also accentuates change for teachers as an orderly process that occurs at an individualized pace for those experiencing the change rather than a single event. Guskey's model includes four stages: staff development, change in classroom practice, change in learning outcomes, and change in teacher beliefs and attitudes.

The participants in this study experienced a change process that agreed with Guskey's (1989) model. Each of the participants received staff development prior to the start of their first semester as instructors implementing the blended learning method. In this case, however, participants felt that the staff development was inadequate and did not fully support their ongoing needs throughout the semester. As a result, the instructors did not feel supported as they continued to experience the change process throughout the semester.

Following the initial staff development experience, the participants were charged with implementing the blended learning methodology. The school division had organized the summer semester so that all instruction would occur through the blended learning format, which left the instructors with little choice regarding their teaching methodology. The instructors made the change due to the school division's directives rather than due to internalized changes in their beliefs about teaching and learning. At this point in the semester, the participants remained skeptical about the effectiveness of the program. Participants complied with the division's program directives, but reserved judgement regarding carrying over any permanent changes to their classrooms.

As the semester progressed, the participants witnessed gradual success in student learning outcomes. These experiences prompted the participants to change their thinking about their teaching practice. Two participants were able to make changes in their classroom instruction when they returned to their respective schools. Although their courses were not fully blended, two teachers were able to apply a more student-centered pedagogy that was supported by components of blended learning within their courses. Those components included videos, integrated technology, and the use of google classroom. These results agreed with Guskey's (1989) assertions that changes in teacher practice are the result of student success in the innovative practice rather than the reverse. When reflecting on participants' experiences, it is interesting to note that the participants withheld a full endorsement of the blended learning methodology until the summer semester concluded. Their endorsement was based on their experience with the method and the success of their students. Their experiences resulted in a commitment to changes in practice that was evidenced by their implementation of some blended learning components in their traditional classroom settings.

Change in Pedagogy

Teaching in the blended learning environment challenged teachers to move beyond the traditional teacher-centered approach to instruction to a more student driven model for teaching and learning. This case study was grounded in both the Community of Inquiry Model for online instruction (Garrison, Anderson, and Archer, 2001) as well as Social Constructivism (Vygotsky, 1978).

Community of Inquiry

Garrison, Anderson, and Archer (2001) put forward the Community of Inquiry Model for online instruction, which outlined how the social, teaching, and cognitive presences coexist in a technology-based learning environment. In this case, the participants utilized technology to facilitate aspects of each of these presences.

Teaching presence. Instructors are charged with crafting a teaching presence in the blended learning environment (Lowenthal, 2010). In this case, traditional whole group direct instruction was minimized with content delivered primarily through the software program in the online portion of the course. As noted earlier in Table 3, teaching presence was established primarily through individualized one-on-one interactions between teacher and student. Small group instruction was rarely observed and whole class instruction did not occur at all. Content delivery was predominantly an independent exercise in the online environment where students interacted primarily with the learning software. Although the participants did establish what they believed to be a strong teaching presence within the face-to-face classroom environment through their one-on-one instructional sessions, technology based instructional interactions between teacher and student were limited. Teachers utilized Google Classroom and email as

communication and instructional tools during the online portions of the course, however, additional options for expanding teaching presence through online discussions and other tools became missed opportunities for enhanced learning dialogue. Given the positive links between teaching presence and acquisition of knowledge (Paechter, Maier, & Macher, 2010) one would question how student learning might have been strengthened with a more robust teaching presence, particularly in the online segments of blended learning. In addition, an effective teaching presence is linked to productive social and cognitive presences. Expanding the teaching presence in this case could possibly have led to improved social and cognitive presences as well.

Cognitive presence. Cognitive presence has to do with the students' engagement in the learning process. Students were able to confirm and construct meaning through their one-on-one interactions with instructor as well as their technology enhanced experiences. The learning process required intellectual engagement from both the students and their instructors. The instructor participants felt that they were able to form stronger relationships with their students through the one-on-one interactions afforded to them in the blended learning environment. Through these relationships, the participants could see first-hand the academic progress for their students. This was particularly evident in the physical classroom, but the instructors indicated satisfaction with their email correspondence with students in the online environment as well.

Social presence. Voegele (2014) studied students' perceptions of social, teaching, and cognitive presence related to blended learning effectiveness. Students in this study reported on the importance of creating a strong social presence through opportunities for interactions with peers in the online learning environment. Kim, Hisook, & Karimi (2012) found that high school students also valued interactions in the form of online discussion. In this case study, few opportunities for students to interact with each other were made available either in the online

environment or in the classroom resulting in a missed opportunity for strengthening the blended learning environment.

Social Constructivism

Social interaction, culture, and social context are each vital components of learning from the social constructivist's viewpoint. Vygotsky (1978) proposed that students create knowledge understanding by building on information gained from prior learning experiences. From Vygotsky's perspective, a collaborative inquiry-based process is the driving force behind the development of learning, as opposed to the learner's development being the prerequisite for learning. Changes to the social context for learning in the blended learning environment produced challenges for the instructors who needed to create a learning environment where students could build on prior knowledge and experience a social context for learning.

Enonbun (2010) reported that interactive web tools could be used as a bridge to enable instructors to facilitate knowledge construction in the online environment. The participants in this study utilized google tools such as the google classroom and email to facilitate interactions in the online environment. The participants in this study did utilize these tools, however, they were utilized primarily for communication between instructor and student rather than as a tool to promote interactions between students.

Wegmann and Thomas (2014) held that quality interactions could enhance learning in both online and traditional learning environments. Moore (2011) further postulated that purposeful interactions between instructors and students contributes to enhanced learning results. Shea & Bidjerano (2009) declared that interaction is beneficial in both online and face-to-face components of blended learning. The findings from this study showed that interactions between students and instructors occurred primarily in one-on-one learning scenarios. This was the case

in the centralized classroom site and in the online environment. The participants reported positive feelings about those interactions, and believed their relationships supported learning.

Faculty satisfaction is impacted by the degree of support and training they receive. In this case, participants reported the need for more training throughout the semester. Student satisfaction is linked to the preparation for the addition of the online component of the learning process (Moore, 2011). Teachers reported that students were not prepared for the blended learning experience, confirming Moore's research.

Perceptions

The perceptions of teachers regarding their blended learning experience were examined in the study. The participants expressed favorable perceptions of blended learning at the outset of their transition to the blended learning methodology, and stated they would teach using the blended learning format again if given the opportunity. Interestingly, the participants also confirmed less favorable perceptions of specific aspects of blended learning. The participants expressed positive thoughts about the use of technology in blended learning, but reported doubts about their ability to effectively utilize all the technology tools available to them in blended learning. This situation agrees with the earlier findings of Mahdizadeh, Biemansa, & Mulder (2008) and Niemiec & Otte (2009). Like the instructors in earlier studies (Comas-Quinn, 2011; Palak & Walls, 2009), the instructors in this study used technology for basic administrative purposes or one directional dissemination of information. Time management became a concern as the participants were faced with learning the new methodology, new formats for lesson planning, improving their technology skills, and increasing their supplemental resources for students. Bair and Bair (2011) found that workload increased despite the technology available to streamline some administrative tasks. This was due to the time spent learning how to use the

technology. It should be noted that some of these concerns are connected with first time / novice blended learning instructors. The time investment on the front end of learning the technology should pay off in future years.

Preparation

Preparation for the transition to blended learning is paramount for both the instructors and students (Moore, 2011; Pape, 2010; Mahdizadeh et al., 2008; Palak & Walls, 2009). Without proper professional development, instructors are less able to provide quality instruction in the online learning environment (Bigatel, Ragan, Kennan, May & Redmond, 2012; Kenney et al., 2010; Pape, 2010; Wicks, 2010). The participants in this study confirmed this regarding their own training. They also noted that students were not adequately prepared, and they had to take this on in addition to their own transitions. Meyer (2014) reported that schools often neglect to provide adequate training for teachers when implementing online learning programs. The participants in this study echoed these findings when describing their experiences. Participants received one full day of professional development delivered in a traditional lecture format. The literature on best practice for professional development related to various forms of e-learning suggests that training should be a process rather than a single event in lecture format, should include opportunities for hands on learning, and should be ongoing allowing for support within authentic teaching contexts (Postholm, 2012; Stein, Ginns, & McDonald, 2007; Stein, Shepherd & Harris, 2011; Wilson, 2012). This report rang true for the participants in this study as well.

Shaw (2009) and McQuiggan (2012) documented the importance of recognizing the role of teacher background knowledge and previous experiences in the transition from traditional to blended learning instruction. In the absence of sufficient training and preparation, the instructors in this study naturally relied on their prior experiences with successful practices in the traditional

classroom setting to inform their blended learning instruction. As documented by Calderon, Ginsberg & Ciabocchi (2012), the instructors needed professional development related to fostering the community of learners in the blended learning environment. Bigatel et al. (2012) conveyed that instructors of blended learning were typically not prepared to effectively facilitate interactions between students and teachers and students to students. As noted in our previous discussion of missed opportunities regarding social presence, added preparation and training in this area would have been beneficial.

The participants in this study indicated that students were not properly prepared or equipped to benefit from the blended learning environment. In fact, participants reported that students received no training prior to enrolling in the course. One participant reported that this was the greatest challenge she faced early in the semester. Moore (2011) noted the connection between student satisfaction with online learning experiences and preparation for the transition. The literature is replete with studies touting the need for identifying prerequisite skills (Archambault et al., 2010; Kemmer, 2011; Napier et al., 2010, & Roblyer et al., 2008) training (Napier et al., 2011), and orientation for students transitioning to blended learning (Jones, 2013). The school division in this case did not provide this for their students, which added to the transition burden of the instructors.

Instructor and Student Roles

The change in social context brought about by blended learning impacts the role of both the instructor and student (Barbour, 2013; Zhu, Valcke, & Schellens, 2010). Looking specifically at blended learning environments, (Burkle & Cleveland-Innes, 2013; Ocak, 2011; Shaw, 2009), researchers reported that some role adjustments were specific to blended learning. Those findings included a necessary shift in the instructor's pedagogy where the teachers must

move away from a teacher centered approach towards a student centered approach (Burkle & Cleveland-Innes, 2013; McQuiggan, 2012; Kenney & Newcombe, 2011; Ocak, 2011; Shaw, 2009; Uger et al., 2011). This aligns with the constructivist paradigm where the teacher serves as a facilitator or guide in the learning process rather than a transmitter of knowledge (Baylen & Zhu, 2009). The participants in this study did experience role adjustments that were tied to the blended learning methodology as well as the role adjustment experiences of their students. Beyond the initial paradigm shifts, technology and the impact of student role adjustments were noted.

Technology. The influence of technology impacted these roles in a variety of ways including the social component of the classroom and relationship between instructor and student (Anastasiades et al., 2007; Gaytan, 2013; Legg, et al., 2009; & Zhu et al., 2010). Instructors are challenged to connect with learners through technology and to create an engaging online learning environment that promotes collaboration (Enonbun, 2010). For teachers, a learning curve exists with the use of technology because instructors are digital immigrants not digital natives (Enonbun, 2010; Shaw, 2009). Putting all the new pieces together for blended learning is a challenge (Caulfield, 2011).

Student Roles. The participants reported that their students experienced significant role adjustments as they transitioned to blended learning. Garrison and Akyol (2013) related that students require a unique skill set to navigate the changes presented by the blended learning environment. The students enrolled in the participants' blended learning courses were not prepared or oriented regarding any specialized skills prior to their enrollment in the summer session, and as a result, their instructors reported that they were initially ill-equipped to successfully manage the blended learning environment. The instructors had to spend time

working with their students to assist them with their transition. Archambault et al., 2010 studied at risk students enrolled in online education and reported that providing an orientation for students prior to their transition to a blended learning course was helpful in promoting students success. Although this was not a strategy employed with the students enrolled in the participants' classes, the participants reported their strong belief that an orientation would have been helpful.

Implications

The implications garnered from this research are wide ranging, and highlight several areas worthy of examination by all stakeholders wishing to embark upon the implementation of blended learning in the high school setting. Implications for division and school leaders, teachers, students, and the larger educational community are included in this section.

Division and School Leaders

Much of what we know about the experiences of novice blended learning instructors in the higher education area was confirmed by the participants in this study who experienced blended learning at the high school level for the first time. This research suggests that school administrators should prepare to address teacher needs for professional development, the change process, student strategies and orientation, and technology mastery prior to implementing blended learning programs.

Change process. The instructors in this study experienced a unique change process for teachers grounded in professional development and student results. The process is developmental with enduring change connected to student achievement. In short, teachers are less likely to change their belief systems about teaching and learning until the new strategy or

methodology is proven through the success of their students. The participants in this study were required to change their practice without experiencing first-hand the effectiveness of blended learning. As a result, the participants were skeptical about their work and hesitant to commit to enduring change. School leaders can learn from this finding that providing information related to student success to first time instructors of blended learning could be included as a critical component of preparation to teaching. School leaders should also be cognizant of the teacher's need to progress through the stages of the change process before assuming that enduring change in beliefs and practice is achieved.

Professional development. The importance of professional development for the novice blended learning instructor cannot be underestimated. Despite the professional development provided by the school division prior to the start of the semester, the participants in this study felt grossly unprepared for their experience as a first time instructor of a blended learning course. The participants shared their need for ongoing support as follow-up to the initial traditional day of professional development. In addition, the participants stressed the importance of providing hands on training, particularly related to the software and technology, rather than training in the traditional lecture format. School leaders desiring to support their teachers transitioning from traditional to blended learning environments should consider providing ongoing professional development for their novice blended learning instructors. Professional development should include evidence of gains in student learning. Such evidence might include relevant school data and personal testimonials from others teachers who have had experiences as blended learning instructors.

Student needs. Although this study focused on the experiences of instructors, the experiences of teachers are intertwined with the experiences of their students. As a result, school

leaders and instructors should not overlook how the needs of students will impact the novice blended learning instructor. The participants in this study expressed significant concern regarding the challenges they faced while attempting to assist students in their transition to blended learning while struggling themselves with the transition. With this in mind, school leaders should consider ways to remove this added burden from teachers. One way to accomplish this could be to provide an orientation and ongoing training / support for students prior to their transition to blended learning. In addition, training for the instructors who may need to provide guidance strategies to their students would be beneficial.

Technology. Given the degree to which technology is embedded in the blended learning instructional format, school leaders should consider the technology skills of teachers and students prior to implementing a blended learning program. School leaders should avoid making assumptions about the technology skills of instructors and students. Veteran teachers may not be as comfortable utilizing technology as a collaborative teaching tool requiring training and ongoing support for success. Students who appear to be tech savvy may not automatically transfer these skills into productively using technology in the educational arena.

Supporting changed pedagogy. District leaders must also take care to consider the long term impact of changed pedagogy. Such changes in teacher beliefs and practice may also require changes to the status quo that exists with the school system. In this case, changes in teacher pedagogy placed teachers in difficult positions when they returned to traditional classroom settings in their anchor communities. Eagerness to implement practices aligned with their student-centered pedagogy quickly turned to frustration when faced with limited access to technology and arbitrary pacing requirements created from a teacher-centered perspective.

Embarking on a blended learning implementation should occur in conjunction with long range planning that will accommodate these changes.

Teachers

Perhaps the impact of innovative change in education is felt the greatest by those teachers who are expected to not only master but embrace the innovation. Teachers who are faced with implementing blended learning should be prepared to begin their journey in an environment that may not provide adequate training and support. Teachers accepting the challenge must be resilient, demonstrate perseverance, and be willing to learn on their own while continuing to teach their students. Teacher should also be prepared to provide training and support to their students who may also be experiencing a new transition. Not all teachers will readily thrive under these conditions, underscoring the importance of training and ongoing support. Giving teachers the opportunity to choose to participate in a blended learning course would be preferable to mandating the blended learning methodology.

Students

Although this research focused on the instructors of blended learning, implications for students who are involved in the learning process are also apparent. Students enrolling in blended learning for the first time should expect to experience role adjustments as they become familiar with the blended learning methodology. Students and parents should consider whether prerequisite skills as well as appropriate support systems are in place for students experiencing blended learning for the first time. Those supports might include participation in orientation and training sessions related to the blended learning technology as well as assistance at home during the online portions of the course.

Larger Education Community

Implications for the larger education community must also be considered. Higher education institutions must begin to equip teachers to effectively instruct in blended learning environments. Professional development within the school divisions may assist veteran teachers with the transition to innovative approaches to instruction, but teacher preparation programs must also be on board with similar training experiences for new teachers.

Finally, boards of education must consider policy changes that will bring written policy into alignment with practice in school divisions where innovations such as blended learning are being implemented. For example, the school division in this study maintained conflicting policies that posed significant challenges for the participants. While the division's strategic plan supported forms of innovative teaching and learning such as blended learning, the expectation to follow published pacing guides was at odds with the asynchronous nature of blended learning.

Delimitations and Limitations

Case study research is often limited by its focus on the single unit or case of study. Such a focus limits the generalizability of the findings to other cases. This study employed a collective case study methodology that included data collection and analysis of five separate cases. Expanding beyond the single unit of study to document findings across several cases can mitigate this limitation. Even with the collective case study methodology, a sample size of five is small and should be considered when attempting to apply findings to a broader population.

The researcher served as the primary instrument for data collection and analysis for this study. In such cases, one must consider the possibility of research bias. In this case, the researcher employed several strategies to guard against bias. First, triangulation was utilized during the data collections process. Data were collected from a variety of sources across time.

The data included in vivo codes to capture the actual words and voice of the participants. Following the data collection, participants were asked to confirm the contents of the data through member checking. The researcher was engaged with the participants and the blended learning environment for a prolonged period and incorporated reflection as an additional measure for minimizing bias.

Recommendations for Future Research

Recommendations for future research regarding the instructors' experiences are primarily related to training and preparation. The participants in this study freely shared about their need for additional professional development. Their needs were varied across topics as well as methods for training. Additional research is needed to investigate what types of professional development would be most effective at addressing the varied needs of this group of professionals.

There is much research about technology enhanced learning at higher education setting. The dearth of research at the K-12 level leaves the field for future research wide open. While this research sought to fill a small portion of that gap, the findings of this study give emphasis to some specific areas for future study.

Teaching and learning are reciprocally connected, linking teachers and students. Although the focus of this study examined the experiences of the first time instructors of the blended learning course, the connections between teaching and learning made it difficult to completely remove the impact of students in the relationship. The experiences of the students most certainly impacted the experiences of the teachers. For this reason, several recommendations for research related to the student experience are made. What are the experiences of students new to the blended learning environment? Did their experiences mirror

those of their teachers? Research regarding how the students viewed and experienced the teaching, cognitive and social presences as presented in the Community of Inquiry work of Garrison might shed light on ways to improve the blended learning experience for students. In addition, more information is needed about the most beneficial transition for students. Specifically, future research illuminating how to best provide orientation experiences for high school students enrolling in a blended learning course would be constructive. Finally, the teachers believed that they developed meaningful relationships with students that impacted learning. This researcher wonders if the students shared those feelings.

Summary

The purpose of this collective case study was to examine the experiences of first time high school instructors of a blended learning course. The research was informed by a body of research conducted primarily with instructors in the higher education arena, and the findings garnered from these participants confirmed many of the findings presented in the existing research. The participants experienced a unique change process that produced enduring change in teacher beliefs and practice when student success with the blended learning methodology was proven. The importance of professional development and ongoing support for novice blended learning teachers was an enormous concern for the participants in this study. Their lack of preparation produced feelings of uncertainty that impacted their ability to function effectively in the blended learning environment. The instructors developed and utilized a variety of strategies to assist them in the absence of proper training and support including collaboration, teamwork, and the use of technology to streamline administrative tasks and enhance communication.

This study also revealed unexpected information about the interconnectedness of teachers and their students. While it is obvious that teaching and learning go hand-in-hand, it was less

obvious as to the level which the transition difficulties of the students would impact the experiences of the instructors. The instructors were alarmed at their students' inability to transfer what appeared to be strong technology skills in the nonacademic setting and apply them productively in the blended learning environment. The instructors were also surprised by the difficulty their students demonstrated in adjusting to a student-centered learning environment where personal responsibility and initiative were expected. The students often reverted to a teacher-centered stance requiring the instructors to provide instruction in how to work independently in the blended learning setting.

The results of this collective case study provide salient guidance for consideration by those seeking to implement blended learning programs at the high school level. A review of existing research along with these findings will assist in designing an implementation plan that minimizes challenges for the instructor and maximizes student success.

References

- Adair, John. (1984). The Hawthorne Effect: A reconsideration of the methodological artifact. *Journal of Applied Psychology, 69*(2), 334 – 335.
- Allen, M., Omori, K., Burrell, N., Mabry E., & Timmerman, E. (2013). Satisfaction with distance education. In M. G. Moore (Ed.), *Handbook of distance education* (143-155). New York, NY: Routledge.
- Alrushiedagt, N., & Olfman, L. (2013). Aiding participation and engagement in a blended learning environment. *Journal of Information Systems Education, 24*(2), 133 – 145.
- An, H., Shin, S., Lim, K. (2009). The effects of different instructor facilitation approaches on students' interactions during asynchronous online discussions. *Computers in Education, 53*, 749 – 760.
- Anastasiades, P. S., Vitalaki, E., & Gertzaskis, N. (2008). Collaborative learning activities a distance via interactive videoconferencing in elementary schools: Parents' attitudes. *Computers and Education, 50*, 1527 – 1539.
- Archambault, OL., Diamond, D., Brown, R., Cavanaugh, C., Coffey, M., Foures-Aalbu, D., & Zygouris-Coe, V. (2010). *Research committee issues brief: An exploration of at-risk learners and online education*. Vienna, VA: International Association for K-12 Online Learning.
- Bair, D. E. & Bair, M. A. (2011). Paradoxes of online teaching. *International Journal For the Scholarship of Teaching and Learning, 11*(2), 1 – 15.

- Bakkenes, I., Vermunt, J. D., Wubbels, T. (2010). Teacher learning in the context of educational innovation: Learning activities and learning outcomes of experienced teachers. *Learning and Instruction, 20*(6), 533 – 548.
- Banerjee, G. (2011). Blended environments: Learning effectiveness and student satisfaction at a small college in transition. *Journal of Asynchronous Learning Networks, 15*(1), 8 – 19.
- Barbour, M. K. (2013). The landscape of K-12 online learning. In M. G. Moore (Ed.), *Handbook of distance education* (143-155). New York, NY: Routledge.
- Baylen, D. M., & Zhu, E. (2009). Challenges and issues of teaching online. In P. Rogers, J. Boetcher, C. Howard, L. Justice, & K. Schenk (Eds.) *Encyclopedia of Distance Learning* (241 – 246). New York: Information Science Reference.
- Bigatel, P. M., Ragan, L. C., Kennan, S., May, J., Redmond, B. F. (2012). The identification of competencies for online teaching success. *Journal of Asynchronous Learning Networks, 16*(1), 59 – 77.
- Brew, L. (2008). The role of student feedback in evaluating and revising a blended learning course. *Internet and Higher Education, 11*, 98 – 105.
- Buczynski, S., & Hansen, C. B. (2010). Impact of professional development on teacher practice: Uncovering connections. *Teaching and Teacher Education, 26*, (1), 599 – 607.
- Burkle, M. & Cleveland-Innes, M. (2013). Defining the role adjustment profile of learners and instructors online. *Journal of Asynchronous Learning Networks, 17*(1), 73 –88.

- Calderon, O., Ginsberg, A., Ciabocchi, L. (2012). Multidimensional assessment of pilot blended learning programs: Maximizing program effectiveness based on student and faculty feedback. *Journal of Asynchronous Learning Networks*, 16(3), 23 – 44.
- Caulfield, J. (2011). *How to design and teach a hybrid course: Achieving student centered learning through blended classroom, online and experiential activities*. Sterling, VA: Stylus.
- Cavanaugh, C. (2013). Student achievement in elementary and high school. In M. G. Moore (Ed.), *Handbook of distance education* (143-155). New York, NY: Routledge.
- Cavanaugh, C., Gillan, K. J., Kromrey, J., Hess, M., & Blomeyer, R. (2004). *The effects of distance education on k-12 student outcomes: A meta-analysis*. Washington, DC: North Central Regional Educational Laboratory. Retrieved from <http://www.ncrel.org/tech/distance/index.html>
- Chandra, V. & Fisher, D. (2009). Student' perceptions of a blended web-based learning environment. *Learning Environ Res*, 12, 31-44.
- Charmaz, K. (2001). Grounded theory. In R. M. Emerson (Ed.), *Contemporary field research: Perspectives and formulations* (2nd ed.) (pp. 335– 52). Prospect Heights, IL: Waveland Press.
- Chiero, R. & Beare, P. (2012). An evaluation of online versus campus-based teacher preparation programs. *MERLOT Journal of Online Learning and Teaching*, 6(4), 780 – 790.

- Comas-Quinn, A. (2011). Learning to teach online or learning to become an online teacher: An exploration of teachers' experiences in a blended learning course. *ReCALL*, 23(3), 218 – 232.
- Creswell, J. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson Education, Inc.
- Creswell, J. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications, Inc.
- Crotty, M. (2004). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage.
- Davis, M. (2011). No longer optional. *Education Week*, 5(1), 27 – 29.
- De la Varre, C., Keane, J., & Irvin, M. (2011). Enhancing online distance education in small Rural US schools: A hybrid, learner-centered model. *Journal of Asynchronous Learning Networks*, 15(4), 35 – 46.
- Deulen, A. (2013). Social constructivism and online learning environments: Towards a theological model for Christian educators. *Christian Education Journal*, 10(1), 90 – 98.
- Diaz, S. R., Swan, K., Ice, P., & Kupczynski, L. (2010). Student ratings of the importance of survey items, multiplicative factor analysis, and the validity of the community of inquiry survey. *Internet and Higher Education*, 13, 22-30.
- Dipietro, M. (2010). Virtual school pedagogy: The instructional practices of K-12 virtual school teachers. *Journal of Educational Computing Research*, 42(3), 327 – 354.

- Drysdale, J. S., Graham, C. R., Spring, K. A., & Halverson, L., (2013). An Analysis of research trends in dissertations and theses studying blended learning. *The Internet and Higher Education*, 17, 90-100.
- Enonbun, O. (2010). Constructivism and web 2.0 in the emerging learning era: A global Perspective. *Journal of Strategic Innovation and Sustainability*, 6(4), 17 – 28.
- Fetzner, M. (2012). What do unsuccessful online students want us to know? *Journal of Asynchronous Learning Networks*, 17(1), 13 – 27.
- Fisher, K. (2010). Technology-enabled active learning environments: An appraisal, *CELE Exchange, Centre for Effective Learning Environments*, No. 2010/07 OECD Publishing, Paris. doi: <http://dx.doi.org/10.1787/5kmbjxzrnc0p-en>
- Gall, M., Gall, J. & Borg, W. (2010). *Applying educational research*. Boston, MA: Pearson.
- Garrison, D. R. (2009). Communities of inquiry in online learning. In Rogers P. L., Berg, G. A., Boettcher, J. V., Howard, C., Justice, L., Schenk, K. D. (Eds.), *Encyclopedia of distance learning* (2nd ed., pp. 352 – 355). Hershey, PA: IGI Global.
- Garrison D. R. & Akyol, Z. (2013). Community of inquiry theoretical framework. In M. G. Moore (Ed.), *Handbook of distance education* (143-155). New York, NY: Routledge.
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *Internet and Higher Education*, 2(2-3), 87-105.
- Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of distance education*, 15(1), 7-23.

- Garrison, D.R., Anderson, T. & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *Internet and higher education*, 13, 5 – 9.
- Garrison, D. R. & Vaughn, N. D. (2008). *Blended learning in higher education. Framework, principles, and guidelines*. San Francisco, CA: Jossey-Bass Publishers.
- Garrison, D. R., Cleveland-Innes, M., & Fung, T. S. (2010). Exploring causal relationships among teaching, cognitive and social presence: Student perceptions of the community of inquiry framework. *Internet and Higher Education*, 13, 31 – 36.
- Gayton, J. (2013). Integrating social media into the learning environment of the classroom: Following social constructivism principles. *Journal of Applied Research for Business Instruction*, 11(1), 1 – 6.
- Gibbs, A. (1997). Focus groups. *Social Research Update*, 19, 1 – 7.
- Girvan, C. & Savage, T. (2010). Identifying an appropriate pedagogy for virtual worlds: A communal constructivism case study. *Computers & Education*, 55, 342-349.
- Gorsky, P., Caspi, A., Antonovsky, A., Blau, I., & Mansur, A. (2010). The relationship between academic discipline and dialogic behaviour in open university course forums. *International Review of Research in Open Distance Learning*, 11(2), 49 – 72.
- Graham, C. R. (2013). Emerging practice and research in blended learning. In M. G. Moore (Ed.), *Handbook of distance education* (3rd ed. Pp. 333-359). New York, NY: Routledge.
- Graham, C. R., & Allen, S. (2009). Designing blended learning environments. In P. Rogers, G. Berg, J. Boettcher, C. Howard, L. Justice, & K. Schenk (Eds.) *Encyclopedia of distance learning* (pp. 562 – 579). Hershey, PA: Information Science Reference.

- Graham, C. & Robison, R. (2007). Realizing the transformational potential of blended learning. In A. G. Picciano & C. D. Dziuban (Eds.) *Blended learning: Research perspectives*. Needham, MA: Sloan-C, 83 – 110.
- Grgurovic, M. (2011). Blended learning in an ESL class: A case study. *Calico Journal*, 29(1), 100-117.
- Guskey, T. (1989). Attitude and perceptual change in teachers. *International Journal of Educational Research*, 13(4), 439 – 453.
- 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.
- Hannafin, M., Land, S., & Oliver, K. (1999). Open learning environments: Foundations, methods, and models. In C. M. Reigeluth (Ed.), *Instructional-design theories and models: A new paradigm of instructional theory* (Vol. 2, pp. 115 – 149).
- Hannum, W. H., Irvin, M. J., Lei, P. W., & Farmer, T. W. (2008). Effectiveness of using learner-centered principles on student retention in distance education courses in rural schools. *Distance Education*, 29(3), 211 – 119.
- Holley, D., & Oliver, M. (2010). Student engagement and blended learning: Portraits of risk. *Computers & Education*, 54, 693 -700.
- Jones, K. (2013). Developing and implementing a mandatory online student orientation. *Journal of Asynchronous Learning Networks*, 17(1), 43 – 45.
- Kear, K. (2010). Social presence in online learning communities. In: Proceedings of the 7th International Conference on Networked Learning 2010, 3-4 May 2010, Aalborg, Denmark.

- Keengwe, J. & Kang, J. (2012). Blended learning in teacher preparation programs: A literature review. *International Journal of Information and Communication Technology*, 8(2), 81 – 93.
- Kemmer, D. (2011). Blended learning and the development of student responsibility for learning: a case study of a ‘widening access’ university. *Widening Participation and Lifelong Learning*, 13(3), 60 – 73.
- Kenney, J., & Newcombe, E., (2011). Adopting a blended learning approach: Challenges encountered and lessons learned in an action research study. *Journal of Asynchronous Learning Networks*, 15(1), 45 – 57.
- Kenney, J. L., Padmini, B., & Newcombe, E. (2010). Developing and sustaining positive change in faculty technology skills: Lessons learned from an innovative faculty development initiative. *International Journal of Technology in Teaching and Learning*, 6(2), 89 – 102.
- Kim, J., Kwon, Y., & Cho, D. (2011). Investigating factors that influence social presence and Learning outcomes in distance higher education. *Computers & Education*, 57, 1512 – 1520.
- Kim, P., Hisook, F., & Karimi, A. (2012). Public online charter school students: Choices, perceptions, and traits. *American Educational Research Journal*, 49(3), 521-545.
- Kim, S. (2003). Research paradigms in organizational learning and performance: Competing modes of inquiry. *Information Technology, Learning and Performance Journal*, 21(1), 9 – 18.

- King, K. P. (2009). Blended learning. In P. Rogers, G. Berg, J. Boettcher, C. Howard, L. Justice, & K. Schenk (Eds.) *Encyclopedia of distance learning* (pp. 562 – 579). Hershey, PA: Information Science Reference.
- Kingsley, P. (2011). The socratic dialog in asynchronous discussions: Is constructivism redundant? *Campus-Wide Information Systems*, 28(5), 320 – 330.
- Lampton, M. A., & Metz, K. (2009). The emergent use of online learning in secondary education: A preliminary review of the literature. *Christian Perspectives in Education*, 3(1), 1 – 20.
- Laumakis, M., Graham, C., & Dziuban, C. (2009). The Sloan-C Pillars and boundary objects as a framework for evaluating blended learning. *Journal of Asynchronous Learning Networks*, 13(1), 75 – 87.
- Legg, T. J., Adelman, D., & Levitt, C. (2009). Constructivist strategies in online distance education in nursing. *Journal of Nursing Education*, 48(2), 64 – 69.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications, Inc.
- Lincoln, Y. S., & Guba, E. G. (1986). “But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation.” In D. Williams (ed.), *Naturalistic Evaluation: New Directions for Evaluation*. San Francisco: Jossey-Bass.
- Lopez-Perez, M. V., Perez-Lopez, M. C., Rodriguez-Ariza, L. (2011). Blended learning in higher education: Students’ perceptions and their relation to outcomes. *Computers in Education*. 56, 818-826.

- Lowenthal, P. (2010). The evolution and influence of social presence theory and online learning. In Dasgupta, S. (Ed.), *Social Computing Concepts: Methodologies, Tools, and Applications*. Hershey: Information Science References.
- Mahdizadeh, H., Biemans, H., Mulder, M. (2008). Determining factors of the use of e-learning Environments by university teachers. *Computers & Education*, 51, 142 – 154.
- McGee, P., & Reis, A. (2012). Blended course design: A synthesis of best practices. *Journal of Asynchronous Learning Networks*, 16(4), 7 – 22.
- McGloin, S. (2008). The trustworthiness of case study methodology. *Nurse Researcher*, 16(1), 45-55.
- McQuiggan, C. A. (2012). Faculty development for online teaching as a catalyst for change. *Journal of Asynchronous Learning Networks*, 16(2), 27 – 61.
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). Evaluation of evidence-based practices on online learning: A meta-analysis and review of online learning studies. Washington DC.: Center for Technology in Learning, U.S. Department of Education.
- Meyer, K. A. (2014). An analysis of the research on faculty development for online teaching and identification of new directions. *Journal of Asynchronous Learning Networks*, 17(4), 93 – 112.
- Mills, A.J., Durepos, G., & Wiege, E., (Eds.). (2010). *Encyclopedia of case study research*. Thousand Oaks, CA: SAGE Publications, Inc.
doi:<http://dx.doi.org/10.4135/9781412957397>
- Moore, J. C. (2005). *The Sloan Consortium quality framework and the five pillars*. Needham, MA: The Sloan Consortium.

- Moore, J. C. (2011). A synthesis of Sloan-C effective practices. *Journal of Asynchronous Learning Networks*, 16(1), 91 – 115.
- Moore, J., & Shelton, K. (2013). Social and student engagement and support: The Sloan-C Quality Scorecard for the administration of online programs. *Journal of Asynchronous Learning Networks*, 17(1), 53 – 72.
- Morgan, D. (1996). Focus groups. *Annual Review of Sociology*, 22, 129 – 152.
- Napier, N.P., Dekhane, S., Smith, S. (2011). Transitioning to blended learning: Understanding student and faculty perceptions. *Journal of Asynchronous Learning Networks*, 15(1), 20 – 32.
- Niemiec, M. & Otte, G. (2009). An administrator's guide to the whys and hows of blended learning. *Journal of Asynchronous Learning Networks*, 13(1), 19 – 30.
- Ocak, M. (2011). Why are faculty members not teaching blended courses? Insights from faculty members. *Computers & Education*, 56, 689-699.
- Ozkan, S. & Koseler, R. (2009). Multidimensional students' evaluation of e-learning in the higher education context: An empirical investigation. *Computers in Education*, 53, 1285 – 1296.
- Paechter, M., Maier, B., Macher, D. (2010). Students' expectation of, and experiences in e-learning: Their relation to learning achievements and course satisfaction. *Computers in Education*, 54(1), 222 – 229.
- Palak, D., & Walls, R. (2009). Teachers' beliefs and technology practices: A mixed-methods approach. *Journal of Research on Technology in Education*, 42(4), 417-441.
- Pape, L. (2010). Blended learning and teaching. *School Administrator*, 67(4), 16 – 21.

- Pape, L., & Wicks, M. (2009). National Standards for Quality Online Programs. *International Association for K-12 Online Learning*.
- Picciano, A. G. (2009). Blending with purpose: The multimodal model. *Journal of asynchronous learning networks, 13*(1), 7 – 18.
- Picciano, A. G. & Seaman, J. (2007). *K-12 online learning: A survey of U.S. school district administrators*. Needham, MA: Sloan Consortium.
- Picciano, A. G., & Seaman, J. (2010). Class connections: High school reform and the role of online learning. New York, NY: Babson Survey Research Group.
- 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. *Internet and Higher Education, 15*, 127-135.
- Postholm, P. (2012). Teacher's professional development: A theoretical review. *Educational Research, 54*(4), 325 – 346.
- Powell, R., & Single, H. (1996). Focus groups. *International Journal for Quality in Health Care, 8*(5), 499 – 504.
- Rice, K., Dawley, L., Gasell, C., Florez, C. (2008). Going Virtual! Unique Needs and Challenges of K-12 Online Teachers. Washington, DC.: Department of Educational Technology, North American Council for Online Learning.
- Richardson, V. (1998). How teachers change. *Focus on Basics, 2*(C), 1-10.
- Roblyer, M., Davis, L., Mills, S., Marshall, J., & Pape, L. (2008). Toward practical procedures for predicting and promoting success in virtual school students. *The American Journal of Distance Education, 22*(2), 90 – 109.

- Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data*. Thousand Oaks: Sage Publications.
- Saldana, J. (2013). *The coding manual for qualitative researchers*. Thousand Oaks: Sage Publications.
- Savasci, F., & Berlin, D. (2012). Science teacher beliefs and classroom practice related to constructivism in different school settings. *Journal of Science Teacher Education*, 23, 65 – 86.
- Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York: Teachers College Press.
- Selwyn, N., & Bullin, K. (2000). Primary school children's use of ICT. *British Journal of Educational Technology*, 31(4).
- Shaw, G. (2009). The changing role of faculty. In P. Rogers, J. Boetcher, C. Howard, L. Justice, & K. Schenk (Eds.) *Encyclopedia of Distance Learning* (241 – 246). New York: Information Science Reference.
- Shea, P., Bidjerano, T. (2009). Community of inquiry as a theoretical framework to foster “epistemic engagement” and “cognitive presence” in online education. *Computers and Education*, 52, 543-553.
- Shelton, K. (2011). A review of paradigms for evaluating the quality of online education programs. *Online Journal of Distance Education*, 4(1).
- Stake, R. (2010). *Qualitative research: Studying how things work*. New York, NY: The Guilford Press.
- Stavredes, T. M. (2011). *Effective online teaching: Foundations and strategies for student success*. San Francisco, CA: Jossey-Bass.

- Stavredes, T. M. & Herder, T. M. (2013). Student persistence- and teaching strategies to support it. In M. G. Moore (Ed.), *Handbook of distance education* (155-169). New York, NY: Routledge.
- Stein, S., Ginns, I., McDonald, C. (2007). Teachers learning about technology and technology education: Insights from a professional development experience. *International Journal of Technology and Distance Education*, 17, 179 – 195.
- Stein, S.J., Sherpard, K., & Harris I. (2011). Conceptions of e-learning and professional development. *Journal of Educational Technology*, 42, (1), 145 – 165.
- Stenbom, S., Hrastinski, S., & Cleveland-Innes, M. (2012). Student – student online coaching as a relationship of inquiry: An exploratory study from the coach perspective. *Journal of Asynchronous Learning*, 16(5), 37 – 48.
- Stewart, C. M., Schifter, C. C., & Selveran, W. E. (Eds.) (2010). *Teaching and learning with technology beyond constructivism*. Florence: Routledge.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 273-285). Thousand Oaks, CA: Sage.
- Thorne, J. (2013). Biblical online education: Contributions from constructivism. *Christian Education Journal*, 10(1), 99 -109.
- Ting, K., & Chao, M. (2013). The application of self-regulated strategies to blended learning. *English Language Teaching*, 6(7), 26 – 32.
- Ugur, B., Akkoyunlu, B., & Kurbanoglu, S. (2011). Students' opinions on blended Learning and its implementation in terms of their learning styles. *Education Information Technology*, 16, 5 – 23.

- Vaughan, N. (2007). Perspectives on blended learning in higher education. *International Journal of ELearning*, 6(1), 81-94.
- Voegele, J. D. (2014). Student perspectives on blended learning through the lens of social, teaching, and cognitive presence. In Picciano, A. G., Dziuban, C. D., & Graham, C. R. (Eds.) *Blended learning research perspectives* (93 – 103). New York, NY: Taylor & Francis.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.
- Watson, J. Gemin B., Ryan, J., & Wicks, M. (2009). *Keeping pace with K-12online learning: An annual review of state-level policy and practice*. Evergreen CO: Evergreen Consulting Associates.
- Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2011). *Keeping pace with K-12 online learning: A review of state-level policy and practice*. Evergreen, CO: Evergreen Consulting Associates.
- Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2013). *Keeping pace with K-12 online learning: A review of state-level policy and practice*. Evergreen, CO: Evergreen Consulting Associates.
- Wegmann, S. & Thompson, K. (2014). Scoping out interactions in blended environments. In Picciano, A. G., Dziuban, C. D., & Graham, C. R. (Eds.) *Blended learning research perspectives* (73 - 92). New York, NY: Taylor & Francis.
- Wengraf, T. (2004). *Qualitative Research Interviewing*. Thousand Oaks, CA: Sage Publishing Inc.

- Wicks, M. (2010). A national primer on K-12 online learning. Vienna, VA: International Association for K-12 Online Learning.
- Wilson, A. (2012). Effective professional development for e-learning: What do the managers think? *British Journal of Educational Technology*, 43(6), 892 – 900.
- Wu, J., Tennyson, R., Hsia, T. (2010). A study of student satisfaction in a blended e-learning system environment. *Computers & Education*, 55, 155 – 164.
- Yapici, I. U., & Akbayin, J. (2012). High school students' views on blended learning. *Turkish Online Journal of Distance Education*, 13(4), 125 – 139.
- Yin, R. (2009). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications, Inc.
- Zandberg, I., and Lewis, L. 2008. Technology-based distance education courses for public elementary and secondary school students: 2002-03 and 2004-05. (NCES 2008-08). Washington, D.C.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Zhao, Y., Lei, J., Yan, B., & Tan, R., S. (2005). What makes the difference? A practical analysis of research on the effectiveness of distance education. *Teachers College Record*, 107(8), 1836 – 1884.
- Zhu, C., Valcke, M., Schellens, T. (2010). A cross-cultural study of teacher perspectives on teacher roles and adoption of online collaborative learning in higher education. *European Journal of Teacher Education*, 22(2), 147 – 16.

Appendix A

LIBERTY UNIVERSITY

INSTITUTIONAL REVIEW BOARD

March 31, 2015

Tammy M. Parlier

IRB Approval 2124.033115: Blended Learning: Perspectives of First Time High School Instructors

Dear Tammy,

We are pleased to inform you that your above study has been approved by the Liberty IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

Fernando Garzon, Psy.D.
Professor, IRB Chair
Counseling

(434) 592-4054

LIBERTY
UNIVERSITY.

Liberty University | Training Champions for Christ since 1971

Appendix B
Participant Invitation Email Letter

Dear _____,

My name is Tammy Parlier and I am a doctoral candidate in the Educational Leadership program at Liberty University. I am conducting a research study of the experiences of first time blended learning instructors as part of the requirements of my degree, and would like to invite you to participate. If you decide to participate, you will be asked to describe your experiences through an electronic journal, individual interviews, and a focus group interview. Specifically, you may be asked about your preparation to teach with the blended learning format, your transition experiences, as well as strategies you have utilized in your blended learning course. Reflective journals will be collected electronically and interview will be scheduled at your classroom at a mutually agreed upon time. The focus group interview will occur with other participants via skype.

Participation in the study is voluntary and confidential. The results of the study may be published or presented at professional meetings, but your identity will remain confidential. You may also withdraw from the study at any time.

I will be happy to answer any questions you have about the study. You may contact me using the information provided below. Thank you for your consideration. If you would like to participate, please respond to this email, and you will be provided additional information about how we will proceed.

With kind regards,

Tammy Parlier

tparlier@liberty.edu

Appendix C

Reflective Journal Protocol

Participant Name: _____

Submission Date: _____

Please use the space below to record your thoughts about the blended learning course this week. While this journal is intended to provide the opportunity for open ended responses, the prompts below can provide some guidance for your responses.

What themes or issues stand out as you reflect on the events of the week?

How did your preparation experiences impact your blended learning experiences this week?

What adjustments to your practice, if any, did you make in order to implement blended learning instruction?

What strategies did you employ to assist your students in transitioning to the blended learning environment?

Other Comments:

Appendix E

Observation Protocol with Memoing Sample

Site: Central Classroom

Date: 7/07/15

Instructor: Holly

Start Time: 8:00

Student: _____

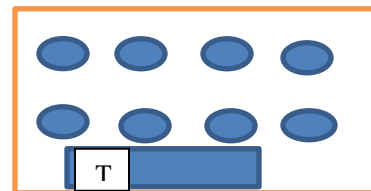
End Time: 8:40

I = Instructor

Classroom

S = Student

Diagram



- 1 – 2 students at each table

Descriptive Notes:	Researcher's Reflective Notes:
<p>Painting is occurring in another classroom area, so the two areas will merge today into one classroom area. The classroom is a multipurpose room that is being used as classroom space. The classroom is not a traditional classroom. Students are seated at round tables. There are no typical chalkboards, smartboards, etc...</p>	<p>This is not a typical classroom environment. It is large and without typical teaching tools.</p>
<p>8:13 – A total of 9 students are in the classroom. Holly is working individually with a student. Student “A 70% is ok with me.” T “ Yes, but is it going to allow you to go on with that score?” S “It will is you put it in there.”</p>	<p>It seems like the teacher can override the automatic progression of the online coursework. It appears that the student knows this and would like for the teacher to allow him to progress even with a score of 70% on his work. I am unclear if the teacher will do this.</p>
<p>8:20 – Holly talked with another student individually. Student “I have an 89% so far in the course.” T – “Let’s do the review today and get you ready for the exam.” Student – “Can I do the exam today?” T – “No, but we</p>	<p>So this student has worked at his own pace through the blended learning format. He has completed and is ready for the exam. If he passes the exam / course, he earns credit and does not need to return to the physical site. Need to confirm this. This is very different</p>

<p>could get you ready for the exam tomorrow and let you finish the course.”</p>	<p>from the traditional classroom experience for the teachers. Consider exploring this as a potential change in how they have to plan for their instruction.</p>
<p>Holly moves to another student. She is discussing progress with this student. The online program shows that you have only completed 11.2 percent of the course.</p>	
<p>8:24 – 14 students are present with 2 instructors and 1 paraprofessional.</p>	<p>Holly shared a concern with me – she stated she hadn’t filled out her electronic journal due to concerns with confidentiality. I reviewed our process for protecting her confidentiality. She stated “They will know it’s me because I have done summer semester both ways. (She is referring to the traditional instructional format vs. blended learning during this session.) I reassured her that her contributions are confidential and that all participants have also taught the traditional format previously.</p>
<p>8:33 – Holly is walking around the room monitoring students as they work.</p>	<p>I noticed no whole group instruction today. Interactions seem to be mostly individual and often not related to direct teaching of content.</p>

Appendix F

Coding

Open Codes	Open Codes	Axial Codes	Overarching Themes
Positive Technology Unsure Achievement Student-centered Resources Intrinsic Motivation Student Preparation Change Lack of Training Personal Experience Ineffective Inadequate Novice Frustration Teamwork Flexibility Time Organizational Structure Student motivation Mindset shift Student oriented Physical Environment Nontraditional Classroom Instructional Pacing Skeptical Overwhelming Self-efficacy Control Student ownership One-on-one instruction Small group instruction	Ill-equipped Orientation Skeptical Student background Empathy Organization Initiative Videos Challenge Collaboration Share Student Accountability Communication Teacher background knowledge Student background knowledge Motivated Disconnect Reduced whole group Student initiated Content Relationship Choices Availability Student Success Mindset Student-centered change Driven Flexible Choice Frustration Lack of control Administrative support Student discipline Disrespect Google Classroom Google Communication Pedagogy	Perceptions Preparation Training Role Adjustment Transition Strategy Interactions Change Administrative Challenges Classroom Management Technology	Change Uncertainty Collaboration Technology Pedagogy
In Vivo Codes: Helpful Great idea Not ready On-the job learning Time consuming Not user friendly Flexibility Work from home			