INVESTIGATING FACULTY MANAGEMENT OF SHIFTING ROLES IN BLENDED LEARNING ENVIRONMENTS

by

Kimberly Blanchette

Bachelor of Science
University of Massachusetts – Lowell, 1991

Master of Science
Boston University, 2003

Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Education in

Educational Leadership

School of Education

Southern New Hampshire University

2016

Chair

Committee Member

External Reader

Committee Member

Associate Dean and Director
Ed.D. in Educational Leadership

Table of Contents

Acknowledgements…..……8

Abstract……..10

List of Tables…….....11

List of Figures……12

List of Appendices…….13

Chapter I: Statement of the Problem……..14

Background……14

Blended Learning……...19

Faculty and Instructional Staff Today in Higher Education……..22

Statement of Purpose and Research Questions……..…23

Theoretical Framework……..24

Key Terms……..27

Rationale and Significance……29

General Procedures……31

Characteristics of a Qualitative Study……32

Conclusion……..…32

Chapter II: Review of Selected Literature……..…35

Blended Learning Advantage and Effectiveness……...…36

Student achievement and performance……..……37

Student perceptions and satisfaction……...…39

Blended Learning in Higher Education……..…41

Institutional level……..….41

Undergraduate……42

Graduate……..…42

Academic disciplines……..…43

Faculty……43

Full-time faculty…….……43

Part-time faculty…….……45

Blended Learning Practice…….……48

Faculty perceptions and satisfaction……...…49

Faculty attitudes and motivations……..54

Professional development……..61

Faculty roles……...….68

Summary……72

Chapter III: Methodology……...…74

Research Design Overview……74

Overview of Information Gathered and Sources of Data …….……76

Research Participants.……78

Data Collection Methods……...……85

Interviews……..…..……86

Observations…….……..…87

Document analysis……..…88

Timeline……..…89

Analysis of Data……89

Issues of Trustworthiness……..……92

Ethical Considerations…….…..…93

Summary……...…..…93

Chapter IV: Findings……...…95

Blended Learning Pedagogy…….……..…95

Institutional adoption……..…97

Knowledge of blended learning pedagogy……99

Positioning of blended learning……...100

Website……...…100

Perception……101

Blended learning benefits……102

Student convenience and flexibility……..…103

Time on task……..…103

Faculty convenience and flexibility…….……104

Faculty face-to-face preference……105

Faculty workload…….……106

Institutional benefits……..…106

In Summary……...…107

Application of blended learning pedagogy…….….107

Dual registration…….…..108

Blended model…….…109

Guiding frameworks……112

Lessons learned……113

Pedagogical role……...…115

Comfort with face-to-face environment……...…117

Blended learning supporting pedagogy……..…..…118

Section synchronization……...…119

Planning and preparation…….120

Assessment of student learning……120

Pedagogical possibilities……...…122

Social role……123
Presence……...…124
Engagement……..…125
Community……...…127
Instructional practices……...…129
Managerial role……132
Synchronization……...…134
Learning management system……..…137
Technological role……...…139
Technology experience……139
Technical support……..…142
In Summary……..…144
Perception of Technology……146
Technology comfort level……146
Helpfulness of technology……...…147
First educational use of technology…….……150
In Summary……...…152
Institutional Support and Resources……153
Administrative perspective……...…154
Training and development……...…160
Technical support……..…161
Faculty perspective……...…162
Communication……163
Training and development……...…165
Initial training……...……165

Training needs……..……167

Peer collaboration……170

Technical support…….……172

Course design and development……..……173

Collaboration…….…...174

Isolation……175

Course improvement……..…..…176

Faculty advice……..……178

Pedagogical role……...……179

Social role……184

Managerial role……185

Technological role……...…187

Chapter V: Conclusions…….……..…189

Reflection on Major Findings…….…..…190

Faculty dispositions…….…190

Blended learning preparedness……191

Educator preparedness…….191

Dual registration……...……192

Institutional commitment…….……192

Assessment of student learning……...….193

Managing faculty roles……193

Implications…….…197

Direction for Future Research…….…199

Appendices……...201

References……215

Acknowledgments

There are many people I would like to thank for their support throughout my doctoral program. I sincerely appreciate the encouragement, support, and time so many have given me. First and foremost, I would like to thank Steve Hodownes for his encouragement and support to begin this journey of pursuing my doctoral degree.

I wish to thank Dr. Margaret Ford from the bottom of my heart for her guidance, wisdom, and unwavering commitment to our cohort of doctoral candidates. Dr. Ford's presence and support was instrumental for me in completing my doctoral studies and dissertation. She is most certainly the leader of our wolf pack.

I wish to extend sincere appreciation to my committee chair, Dr. Audrey Rogers for sharing passion for my dissertation topic and keeping me grounded. Dr. Rogers pushed my thinking helping me grow as a scholar. Her clear thinking and feedback kept me focused, on track, and moving forward. Thank you.

Thank you to my committee members, Dr. Megan Paddack and Dr. Mary Kim Lindley-Soucy. Dr. Paddack who extended so much of her time to answer questions and provide detailed feedback. Her wisdom and guidance made a significant difference. Dr. Lindley-Soucy who always provided positive encouragement. Her keen insight and feedback helped elevate my writing. Thank you.

I wish to acknowledge each professor in the doctoral program for challenging and inspiring me. Thank you for sharing your knowledge and experience. I wish to also thank the doctoral program staff, Casady Grover, Jill Conroy, and Chelsea Bullard for all of their assistance.

I wish to acknowledge the power of the wolf pack and thank my fellow cohort doctoral candidates. Your friendship and support has made all the difference.

A very special thank you to my colleague and dear friend, Dr. Sherry Kollmann. Dr. Kollmann's friendship and support was paramount in keeping me sane at the end of this journey. Her intelligence and tremendous feedback helped me to get to the finish line.

Thank you to all of my study's participants for taking time out of your hectic lives to share your thinking and experiences with me in support of my research.

Most importantly, thank you to my family and friends for your love and support. Marc, Jarod, and Sydney, I couldn't have realized this accomplishment without your love, support, and sacrifice. Thank you.

Abstract

This qualitative case study considers how faculty manage shifting roles in blended learning environments. Blended learning presents challenges for faculty due partly to complexity of instruction, need for more time, lack of institutional support, changing roles, and difficulty of adoption to new technologies. For blended learning to be effective, institutions must commit resources and support toward faculty training and development in order to foster positive attitudes and perceptions toward effective use of technology in the classroom which would promote a shift from teacher-oriented toward student-oriented learning.

Data collection and analysis was guided by Berge's (1995) Role Categories Conceptual Framework. This study's findings help to inform approaches toward developing and supporting faculty. Where Berge's (1995) Role Categories Conceptual Framework assists with organization and discussion of pedagogical, social, managerial, and technological faculty roles, this study goes further in recommending a Model for Managing Faculty Roles that considers influence of perception and importance of pedagogy. This model assists in guiding institutions and faculty through evolution of perception, knowledge, and experience with a focus on pedagogy and student learning assessment.

List of Tables

Table 1. Berge (1995) Role Categories Conceptual Framework…….13

Table 2. Overview of Information Gathered……66

Table 3. Overview of Faculty Participants……...75

List of Figures

Figure 1. Model for Managing Faculty Roles 186

List of Appendices

Appendix A: Invitation to Participate……..193

Appendix B: Informed Consent Agreement……194

Appendix C: Blended/Hybrid Survey……..196

Appendix D: Interview Guide and Protocol……201

Chapter I: Statement of the Problem

The purpose of this study was to investigate full-time and adjunct faculty experiences with managing shifting roles in blended learning. This study sought to understand how best to leverage faculty involvement in the design, development, and instruction of blended learning. In order to best leverage faculty involvement, this study also sought to uncover faculty needs in support of those shifting roles.

Background

Technology use is increasingly being expected at all levels within our educational system. However, little is known about how faculty manage shifting roles required in blended learning in consideration of the effective integration of technology in teaching and learning (Drysdale, Graham, Spring, & Halverson, 2013; Halverson, Graham, Spring, Drysdale, & Henrie, 2014; Oh & Park, 2009). Existing research is largely quantitative and focuses on the utility of adjunct faculty, comparisons between adjunct and full-time faculty in relation to student retention, achievement and satisfaction, and university reliance on part-time adjunct faculty (Curtis, 2014; Curtis & Thornton, 2013; Curtis & Thornton, 2014; Meixner, Kruck, & Madden, 2010; Stenerson, Blanchard, Fassiotto, Hernandez, & Muth, 2010). There is a lack of research on faculty involvement in developing online instructional materials for the blended learning environment (Oh & Park, 2009). Through an analysis of research trends in dissertations and theses over the past decade, Drysdale et al. (2013) identified the need for additional research attention toward faculty in blended learning. A thematic analysis of the most highly cited scholarship in the first decade of blended learning indicated concern for the lack of attention on faculty demographics, dispositions, professional development, and adoptions

or implementation challenges (Halverson et al., 2014). The role of faculty was addressed in 2.4% of the top-cited publications. The low emphasis on faculty "…may indicate a failure to fully consider the support needs, shifting roles, and other concerns of a vital party in the blended learning ecosystem: the instructors" (p. 29). Given this gap in the literature, my study sought to explore faculty perspectives of managing shifting roles in order to inform how institutions of higher education determine resources and levels of support for faculty including faculty development.

The United States Department of Education along with private foundations in 2011 launched Digital Promise to advance learning technologies (The White House, 2011). In addition to a governmental focus on access and educational technology, the International Society for Technology in Education's Standards for Teachers (ISTE Standards•T) has served the National Council for Accreditation of Teacher Education (NCATE) in accrediting colleges of education throughout the United States through evaluating the skills and knowledge educators need to teach, work, and learn in an increasingly connected global and digital society. Although there are standards guiding the use of technology in teaching and learning within schools of education who are seeking accreditation at the higher education level, there are gaps within other disciplines within higher education.

As technological advancements including electronic learning resources from publishers have increased quality and availability of online courses and programs, there has been an increase in adoption of both blended and online courses within secondary and post-secondary education (Allen & Seaman, 2011; Ellis, Goodyear, Prosser, & O'Hara, 2006; Johnson, Adams Becker, Estrada, & Freeman, 2014; Porter, Graham, Spring, &

Welch, 2014). According to Allen & Seaman (2011), 65% of over 2500 higher education institutions indicated that online learning is a critical element of their strategic plan. Students increasingly expect technological learning resources to be part of their collegiate experience (deNoyelles, Cobb, & Lowe, 2012; Dziuban, Moskal, & Hartman, 2005; Ellis et al., 2006). According to Stoner and Fincham (2012), it is the responsibility of faculty to create active learning environments that motivate students to engage. Communications technology can be used to overcome students' perceptions of diminishing value in attending classes in person by providing opportunities for engagement and interaction. They argued institutions of higher education must be prepared to support challenges presented by technology integration. These challenges facing faculty in the development of online instruction relate to faculty motivation, instructional support, and technology problems (Graham, 2006; Oh & Park, 2009). Blended learning provides increased flexibility for both faculty and students fueling interest in blended or hybrid approaches and a need for instructional approaches to grow and adapt (Bonk & Graham, 2006; Dziuban et al., 2005; Means, Toyama, Murphy, Bakia, & Jones, 2009). Gappa (2008) argued that institutions of higher education must recognize and support all faculty because "constantly changing students, technology, expectations, and discipline-based knowledge require all faculty members to engage in continuous professional development" (p. 52).

Many full-time faculty experience a lack of time, support, encouragement, and training as well as incentives within their institutions for adopting distance education (Cook, Ley, Crawford, & Warner, 2009; Paris, 2013). Similarly, many adjunct faculty do not receive any training in curriculum development, instructional design, or pedagogy

(Backhaus, 2009). Adjunct faculty can be at a disadvantage through the lack of teaching experience and knowledge of student services, financial aid, health services, and library services (Rogers, McIntyre, & Jazzar, 2010; Seaman, 2009; Wallin, 2007). Adjunct faculty often carry heavier responsibilities for blended or online instruction compared to full-time faculty, yet receive less training and preparation than their full-time counterparts (Rogers et al., 2010). A particular challenge related to blended learning is that some administrators and faculty members do not understand the need for special skills, preparation, and time to design, develop, and teach in multiple learning modalities (Moskal, Dziuban, & Hartman, 2013; Skibba, 2014). Unquestionably, it is the responsibility of higher education institutions to support all faculty especially with respect to training and professional development since they are a valuable asset contributing to an institution's mission (Georgina & Olson, 2008; Moskal et al., 2013; Wallin, 2007). The implementation of blended learning courses and programs is complex and not always smooth or successful (Bonk & Graham, 2006; Garrison & Vaughan, 2008; Picciano, Dziuban, & Graham, 2014). One way to support faculty is to provide training and development that considers the institution's strategic goals and faculty's specific needs (Porter et al., 2014; Wallin, 2007).

Advancements in, and availability of, technology have expanded educational opportunities to both students and faculty alike. Many faculty resist extending the use of technology into the classroom (Tabata & Johnsrud, 2008). The resistance is related to motivation, and stems from one or a combination of the following factors: (a) technology use and competencies; (b) time commitment; (c) faculty workload; (d) institutional support; (e) rewards and incentives; (f) alignment with promotion and tenure

expectations; and (g) perceived impact on the quality of instruction and learning (Oh & Park, 2009; Tabata & Johnsrud, 2008). One of the significant challenges recognized as inhibiting technology adoption in higher education is low digital fluency of faculty (Johnson et al., 2014). To the detriment of the profession, digital fluency has been ignored in the preparation of faculty within training and professional development programs (Johnson et al., 2014). This is of great concern as digital fluency is becoming a key skill in almost every discipline and profession. A common perception of the adoption of technology is that technology is an addition or extension of instruction rather than a replacement. A change in mindset is needed in faculty to understand that digital fluency is a way of thinking versus simply a supplemental tool (Johnson et al., 2014). This has been more often the case in higher education since web-based course or learning management systems have emerged since the 1990s.

Learning can be facilitated through a range of electronically networked Information and Communication Technology (ICT). Indeed, access to enormous amounts of information and academic content through the use of the internet and other electronic means has extended teaching and learning beyond the brick and mortar classroom. Certainly, mobile technology advancement has allowed for the potential of engagement to occur not only beyond the classroom but away from the computer as well. Teaching and learning occurs face-to-face, at a distance, fully online, or through a variety of blended learning configurations. A case in point is distance education occurring in both secondary school and higher education settings. Subsequently, the use of ICT in education has blurred the distinctions between face-to-face and distance education

creating a new hybrid educational model termed *blended learning* (Osguthorpe & Graham, 2003).

Blended Learning

Blended learning has been referred to as an environment, delivery mechanism or system, design model, and pedagogical approach in which there can be a variety of educational technologies utilized to enhance the learning environment (Bonk & Graham, 2006; Osguthorpe & Graham, 2003). There has been no generally accepted definition of blended learning. As there are almost limitless possibilities in blending modalities, technologies, and instructional approaches at different levels, "…blended learning has become an evolving, responsive and dynamic process that in many respects is organic, defying all attempts at universal definition" (Moskal et al., 2013, p. 16). In 2005, at an Alfred P. Sloan Foundation workshop, a group of blended learning educators and researchers gathered to develop a working definition of blended learning. The following blended learning definition was adopted: (a) courses that integrate online with traditional face-to-face class activities in a planned, pedagogically valuable manner; (b) and where a portion (institutionally defined) of face-to-face time is replaced by online activity (Picciano, 2009, p. 10). The extent to which face-to-face time is replaced online is not defined and varies widely (Dziuban et al., 2005). Blended learning is more than mixing delivery methods as it necessitates a unified and balanced learning environment where intentional application and integration of instruction, tools, performance support, collaboration, practice, and evaluation blends between modalities (Elsenheimer, 2006). Gill (2009) described blended learning as "…the interweaving of face-to-face instruction with online technologies" (p. 1). While some higher education institutions have adopted

a standard definition of blended courses, many have not. Many institutions are neither fully aware of nor track the number of blended experiences being delivered. Blending can occur at the activity, course, or program level. The terms of *blended*, *hybrid*, *mixed mode*, *mediated learning*, *web-enhanced instruction* and *web-assisted instruction* have been used interchangeably. What's more, the term *blended* could be seen as transitory and may disappear in time, if in the future all learning is blended (Bonk & Graham, 2006).

Blended learning is commonly referred to as the learning model that is the best of both worlds (Garrison & Vaughan, 2008). This is due to the potential blended learning models have of taking advantage of the most effective methods and practices of face-to-face and online learning. Indeed, blended learning has an advantage over other instructional delivery formats when there is a purposeful re-design of the instructional approach that uses effective methods and practices of both media (Garrison & Kanuka, 2004; Lee & Dashew, 2011; Kaur, 2013; Yoon & Lim, 2007). Blended learning is disruptive and empowering and prompts a reexamination of traditional teaching and learning assumptions (Garrison & Kanuka, 2004; Garrison & Vaughn, 2008; Moskal et al., 2013).

Surprisingly to some, blended learning is not new. In fact, blended learning goes back as far as the 1920s when supervised correspondence study occurred at the high school level. What's more, this model of blending classroom activity of supervision with mediated delivery of instruction through the use of mailed correspondence and then with the introduction of film and radio was occurring in more than one hundred public

high schools by 1930 (Bonk & Graham, 2006). In the higher education sector, the United Kingdom's Open University has been using blended learning models since 1969.

Compared to distance education, blended learning has not received the same degree of research attention (Gutierrez & Russo, 2005). Much of the research literature has focused on a comparison between distance education and classroom (face-to-face) instruction or solely on distance education. Certainly, the educational community has benefited from research in face-to-face and distance education environments including the impact on student perception, satisfaction, and achievement. In distance education, some theories prominent in the research include the community of inquiry (Garrison, Anderson, & Archer, 2000), interaction equivalency (Simonson, Schlosser, & Hanson, 1999) and transactional distance (Moore, 2013). These three core elements include cognitive, social, and teaching presence. Interaction equivalency considers level of interaction between or among student and teacher, student and student, and student and content. Moore's (2013) theory of transactional distance speaks to the separation between faculty and students or teacher and learner. Transactional distance is the psychological and communications space between faculty and students. The evolution of educational technology is moving from classroom instruction to distance education, which necessitates a shift by educators and researchers. The shift that is required should focus toward exploring and understanding how to most effectively approach the integration of both modalities for the benefit of student satisfaction and learning (Bonk & Graham, 2006; Dziuban et al., 2005; Garrison & Vaughn, 2008; Graham, Henrie, & Gibbons, 2014).

Blended learning research has ties to both educational technology research and distance education research (Graham et al., 2014). Even though blended learning has benefited from distance education theories, the field needs theoretical frameworks that deal directly with blended learning to assist in making decisions about how to effectively blend modalities and which blends to choose (Bernard et al., 2009; Drysdale, Graham, Spring, & Halverson, 2013; Halverson, Graham, Spring, & Drysdale, 2012; Halverson, Graham, Spring, Drysdale, & Henrie, 2014). Access to digital learning resources and interactive communication tools changes the nature of teaching and learning. Hence, there is a need for a purposeful blend of pedagogy and technology (Ellis et al., 2006; Gerber, Grund, & Grote, 2008).

Faculty and Instructional Staff Today in Higher Education

Faculty play a critical role in the post-secondary education of students. Therefore, it is important to understand characteristics, backgrounds, and perceptions of faculty in higher education who design, develop, and instruct blended learning courses. Additionally, it is beneficial to understand why faculty engaged in blended learning make certain pedagogical decisions as well as the resulting experiences. Faculty face challenges when teaching in blended learning environments due partly to complexity of instruction, need for more time, lack of institutional support, changing roles, and difficulty of adoption to new technologies (Bonk & Graham, 2006; Garrison & Vaughan, 2008; Graham, 2006; Kaleta et al., 2007; Liu, Bonk, Magjuka, Leem, & Su, 2005; Moskal et al., 2013; Napier, 2011; Ocak, 2011; Picciano et al., 2014; Skibba, 2014).

Institutions of higher education have not always provided resources and incentives needed for faculty to improve their instructional approaches (Cook et al., 2009;

Garrison & Kanuka, 2004; Johnson et al., 2014). As the levels of institutional support vary, instructor involvement is impacted, which influences how faculty manage shifting roles within blended learning environments. When institutions of higher education value research over teaching, the focus is not on implementation of effective pedagogies. These institutions of higher education that value research over teaching tend to compensate and support their teaching faculty less than research faculty. Many non-research institutions of higher education are financially constrained, resulting in a lack of resources to support and develop faculty in a manner necessary to keep pace with evolving technology (Oh & Park, 2009; Paris, 2013; Restauri, 2007).

Statement of Purpose and Research Questions

It is necessary to gain a clear understanding of challenges faculty face in managing shifting roles blended learning environments necessitate due to the utilization of educational technologies. A clear understanding will identify institutional-level resources to supplement and support effective design, development, and instruction of blended learning courses and programs. The results of this study inform approaches toward faculty professional development, which could foster positive attitudes and perceptions toward effective use of technology in the classroom, which would promote a shift from teacher-oriented toward student-oriented learning. This study sought to answer the following overarching research question:

> How do faculty manage the shifting roles required of them in blended learning environments?

Informed decisions for how best to maximize faculty involvement and which institutional resources are required for effective blended learning environments may be uncovered

through exploring answers to the overarching research question and following research sub-questions:

1. How do faculty perceive their roles shifting in relation to blended learning?
2. How do faculty experience shifting roles in blended learning environments?
3. How do faculty perceive institutional support and resources impacting the management of shifting roles in blended learning environments?
4. What do faculty identify as important components in blended learning professional development programs?
5. How do educational and instructional support staff perceive faculty management of blended learning environments?

Theoretical Framework

Berge's (1995) conceptual framework role categories are comprised of: (a) pedagogical, (b) social, (c) managerial, and (d) technological.

Table 1

Berge (1995) Role Categories Conceptual Framework

Pedagogical	Social	Managerial	Technological
Intellectual; task The pedagogical role encapsulates the duties of educational facilitator.	*Creating a friendly social environment which promotes learning* The social role encases the responsibility of creating a safe and social environment.	*Organizational; procedural; administrative* The managerial role, which is similar to the previously mentioned organizational, procedural, and administrative roles, contains agenda setting and	*Making technology transparent* The technological role envelops the responsibilities of integrating and managing technology. Faculty must be cognizant of the student's comfort with the technology and strive to make

		managing interactions.	the technology transparent so that it does not inhibit learning.

Berge (1995) developed this conceptual framework to organize his discussion of moderator or faculty roles in distance learning in higher education. Since much engagement in online environments has focused on discussions, Berge (1995) based his conceptual framework on his experience as well as Gulley's (1968) procedural, social, and task leadership functions; Hyman's (1980) substantive realm, social-emotional realm, or procedural realm of discussion leadership; and Mason's (1991) general computer conferencing moderation categories of intellectual, social, and organizational. Gulley (1968), Hyman (1980), and Mason (1991) all recognized multiple roles faculty take on while facilitating discussions. Each highlighted roles related to pedagogy, social climate, and course management and organization. Berge (1995) acknowledged faculty roles related to integrating and managing technology, therefore, added the fourth role category.

Berge's (1995) framework was developed based on the need for the online learning environment to be student-centered rather than teacher-centered. A student-centered learning environment requires the faculty role to shift and change from lecturer to facilitator (Berge, 1995). As Berge (1995) acknowledged, the literature has identified roles or functions of a computer conference or online discussion including "… assistant, consultant, coordinator, discriminator, editor, entertainer, expert, explainer, facilitator, filter, firefighter, goal setter, helper, host, intermediary, leader, lecturer, manager, marketer, mediator, mentor, observer, pace-setter, participant, promoter, provocateur, tutor, and so forth" (p. 24). The role of faculty changes in online environments, adding

responsibilities such as instructional designer, technology specialist, and administrative advisor (Neely & Tucker, 2010; Porter et al., 2014; Restauri, 2007). Pedagogical, social, managerial, and technological roles taken on by faculty in online environments have been confirmed in research literature (Liu et al., 2005; Kaleta, Skibba, & Joosten, 2007). Berge's (1995) Role Categories Conceptual Framework has been found appropriate for identifying and organizing faculty perceptions and experiences related to roles taken on in the development and instruction of online and blended environments (Liu et al., 2005; Kaleta et al., 2007).

While Kaleta et al. (2007) studied experiences of full-time faculty, my study adds to the literature research base in that it incorporated adjunct faculty experiences. In addition, my study sought to understand how full-time and part-time faculty manage the shifting roles considering any intrinsic or extrinsic influences and mitigating factors in blended learning environments within the context of a specific institution (Cook et al., 2009; Ocak, 2011; Oh and Park, 2009). Specifically, Berge's (1995) Role Categories Conceptual Framework guided data collection and analysis. I received permission to utilize the Kaleta et al. (2007) interview guide and protocol and blended/hybrid survey questionnaire. The study's research questions have been developed and informed by Berge's (1995) Role Categories Conceptual Framework.

There is a lack of theoretical and conceptual frameworks guiding blended learning research. Halverson et al. (2014) found through their review of the top cited publications in blended learning over the past decade that "blended learning needs substantive conversations about theory, and such conversations will not happen without supporting empirical research" (p. 29). There needs to be increased theoretical development in order

to strengthen blended learning practices (Graham et al, 2014). The question of what roles faculty members should assume within blended learning is a relevant consideration. It is important to understand the impact of shifting roles on the effective management of complex blended learning environments. As Liu et al. (2005) and Kaleta et al. (2007) identified, Berge's (1995) Role Categories Conceptual Framework is appropriate for organizing data collection and analysis in order to understand how faculty roles and approaches shift related to pedagogical, social, managerial, and technical responsibilities or tasks when blending face-to-face and online learning environments.

Key Terms

Adjunct or Part-Time Faculty: Individuals subject to termination or nonrenewal without due-process procedures and who have limited academic freedom (Curtis & Thornton, 2013).

Blended Learning/Hybrid: The interweaving of face-to-face instruction with online technologies (Gill, 2009). The orchestrated application and integration of instruction, tools, performance support, collaboration, practice, and evaluation to create a unified learning and performance environment (Elsenheimer, 2006).

Contingent Faculty: Full- and part-time faculty not on the tenure track and graduate student employees (Curtis & Thornton, 2013).

Digital Literacy: The American Library Association's Digital Literacy Task Force defines digital literacy as the ability to use information and communication technology to find, evaluate, create, and communicate information (Johnson et al., 2014).

Distance Education: A pedagogical phenomenon that is independent of communication medium concerned with both the physical and psychological separation between a student and a teacher (Kanuka & Conrad, 2003).

Dual Registration: Blended model at case institution where one face-to-face course section is combined with one blended course section. From an institutional perspective, the two course sections are treated as one blended course with one assigned faculty member. Students of each course section have different expectations including attendance requirements. (Administrator A)

Educational Technology: The field concerned with the design, development, utilization, management, and evaluation of processes and resources for learning (Luppicini, 2005).

E-learning: The use of electronic technologies to collect and distribute data, information, and knowledge through hardware, software, and networking infrastructures for the purposes of teaching and learning (Andrews & Haythornthwaite, 2007).

Information and Communication Technology (ICT): Technologies that provide access to information through telecommunications. It is similar to Information Technology (IT), but focuses primarily on communication technologies. This includes the internet, wireless networks, cell phones, and other communication mediums (Tech Terms, 2010).

Learner/Student-Centered or Learner/Student-Oriented: Pedagogical approach where a greater emphasis is placed on developing student skills through co-constructing knowledge through engaging activities requiring high order thinking than on information transmission (Picciano et al., 2014).

Teacher-Centered or Teacher-Oriented: Passive pedagogical approach where the focus is on the teacher, transmission of knowledge, and where activities are used after material

has been presented to learners as a means of consolidating and revisiting the content (Bonk & Graham, 2006).

Rationale and Significance

Many institutions of higher education are stressed by constrained budgets and resources (Oh & Park, 2009; Paris, 2013; Restauri, 2007). In some cases, institutional priority is centered on surviving and increasing student enrollment and endowments. Consequently, attention to faculty needs and academic improvement initiatives such as faculty professional development and support, have suffered (Paris, 2013). This is even more the case for adjunct faculty as they experience gaps in the support they need (House Committee on Education and the Workforce Democratic Staff, 2014). Adjunct faculty are on campus much less than full-time faculty and have competing demands on their time. Blended learning is a complex process that requires high quality support at all levels (Bonk & Graham, 2006; Garrison & Vaughan, 2008; Moskal et al., 2013; Picciano et al., 2014). As faculty training and support are critical for student learning, understanding experiences and addressing needs of blended learning faculty and finding effective ways to meet the needs of and develop faculty skills and motivation are of utmost importance.

The discussion on role of faculty in higher education is a relevant one. This is based on consideration of how learning environments are being developed and by whom. For example, publishers are partnering with institutions and reducing the role of faculty by providing the learning path students will take within their courses. From one extreme with competency-based education where faculty are basically non-existent to traditional face-to-face education where use of technology is increasingly being expected by

administrators and students alike, institutions are challenged with redefining the faculty role. An important consideration is which instructional tasks require faculty involvement. Are there aspects of the faculty role that cannot be routinized through technology? Dialogue between administration and faculty in answering this question is crucial in determining how our institutions of higher education structure themselves, as well as academic programs and courses. There is a conflict between the needs caused by changes in faculty roles and the acknowledgement and desire of institutional leaders to develop and deploy "…faculty [who] effectively take advantage of the new pedagogical possibilities" (Paris, 2013, p. 20). Paris (2013) warns that "the 'industrial path' we are treading and the treatment of faculty as piece workers in a quasi-industrial way serves our students, faculty, and society poorly" (p. 20).

Blended learning can address some challenges facing higher education including access, cost, faculty roles, and student achievement. With regard to the concern of a diminishing role for faculty, blended learning "…nurtures greater choices and learning opportunities, [and] various instructional skills will become more prominent, including coaching, mentoring, and counseling" (Bonk, Kim, & Zeng, 2006, p. 538). There is a significantly larger advantage in student achievement when instruction combines online and face-to-face elements versus purely face-to-face instruction (Means et al., 2009; Zaho, Lei, Yan, & Tan, 2005). This shows support for a research focus on faculty perspective based on potential of positive outcomes in blended learning environments considering faculty involvement with the face-to-face synchronous advantage whether occurring in a physical location or at a distance. There is, however, a complexity to designing and teaching in blended learning environments. How can the quality of

blended learning classes be improved when faculty experience gaps in development and support and the level of complexity in blended learning requires increased skills, resources, and support? Administrators must learn more about faculty, their knowledge, experiences, attitudes and perceptions of information and communications technology, and blended learning in order to meet their needs and support their development (Kaleta et al., 2007; Moskal et al., 2013; Ocak, 2011; Oh & Park, 2009; Porter et al., 2014). Moreover, it is critical to determine the need for and effective use of resources to support blended learning environments in order to ultimately improve student outcomes. The potential of this study's contributions to the blended learning field is significant based on the importance of understanding how best to maximize the benefits of faculty involvement (Halverson et al., 2014).

General Procedures

This research study followed Yin's (2014) model of a qualitative single case study approach focused on one institution of higher education in New England. Information from faculty and support staff on their lived experiences with blended learning was required in order to inform the overarching research question and answer the research sub-questions. An initial informational survey was sent to potential participants collecting demographic, blended teaching, and professional development information. The survey data informed the selection of participants for interviews, observations, and document analysis through a criterion sampling process.

Data collection methods included in-depth interviews, observations, and document analysis. The data analysis protocol followed the steps recommended by Creswell (2013): (a) data organization, (b) reading and memoing, (c) describing,

classifying, and interpreting data into codes and themes, (d) data interpretation, and (e) data representation and visualization. Both data collection and analysis were guided by Berge's (1995) Role Categories Conceptual Framework in terms of recognizing which data were important to capture, organize, and analyze.

Characteristics of a Qualitative Study

This is a single case study of one institution of higher education in New England. The findings of this case study are representative of the environmental context of this one case site. The case study focused on faculty involved with blended learning and did not involve student participants. Potential weaknesses of collecting evidence through documentation include issues of retrievability and access, biased selectivity, and reporting bias. With regard to collecting data through interviews, poor interview questions can create bias, and interviewees can give information that they believe the interviewer wants to hear. I worked to avoid the pitfalls of these limitations by using an interview guide adopted by Kaleta et al. (2007) to keep focused and ensure good interview questions guided conversations. Observations and follow up interviews were conducted with faculty participants teaching a blended course in the spring 2015 semester.

Conclusion

As interest in blended learning continues to increase based on the misconception of ease to move from a face-to-face to blended format compared to online, more blended courses and programs may be developed within traditional and non-traditional college programs (Allen, Seaman, & Garrett, 2007). Faculty and administration can look to existing and emerging research to help inform effective design and pedagogical

approaches (Garrison & Kanuka, 2004; Lee & Dashew, 2011; Kaur, 2013; Yoon & Lim, 2007). Institutions should consider encouraging faculty to conduct research on the effectiveness of student learning and contribute to the body of blended learning literature. At the same time, institutions need to identify, categorize, and track blended learning courses and programs being offered in their institutions.

In order to further the field of blended learning, educators and researchers should not only analyze blended learning from the perspective of the classroom teacher and pedagogical theories underlying classroom practice, but also study the research and practice of the distance education field (Bonk & Graham, 2006). Certainly, the study of blended learning in multiple contexts is important. Further research can help to answer questions about faculty and student attitudes, motivations, perceptions, satisfaction, and student achievement in blended learning environments. Questions concerning effectiveness of specific pedagogical and instructional models in blended learning environments can be investigated. The future role of teachers and their relationship to students as well as their rights and responsibility for ownership of content can be contemplated (Bonk & Graham, 2006).

The future challenge will be in getting the right mixture of media and technologies that includes effective use of the classroom teacher in a well-designed integrated multimedia program so that a high quality learning experience and best return on investment will occur (Bonk & Graham, 2006). Indeed, such future challenges include "…(a) the role of live interaction, (2) the role of learner choice and self-regulation, (3) models for support and training, (4) finding balance between innovation and production, (5) cultural adaptation, and (6) dealing with the digital divide" (Graham,

2006, p. 45). Faculty play a critical role in successfully addressing these challenges while working closely with administration. This study will initiate a first step in understanding how faculty manage roles, gaps in skills and resources, and how institutions can plan a support infrastructure to support effective design, development, and instruction of blended learning.

Chapter II: Review of Selected Literature

Blended learning environments foster greater achievement of student learning outcomes versus face-to-face learning environments (Means et al., 2009; Zhao et al., 2005). There is an advantage over other instructional delivery formats when there is a purposeful re-design of the instructional approach that uses effective methods and practices of both online and face-to-face modalities (Garrison & Kanuka, 2004; Lee & Dashew, 2011; Kaur, 2013; Yoon & Lim, 2007). Faculty and students are afforded increased flexibility fueling interest in blended approaches (Dziuban et al., 2005; Means et al., 2009). Distance education adoption including blended learning has increased within secondary and post-secondary education (Allen & Seaman, 2011; Ellis et al., 2006; Johnson et al., 2014; Porter et al., 2014).

Blended learning empowers faculty and students alike, however, is disruptive because it requires a reexamination of traditional teaching and learning assumptions (Garrison & Kanuka, 2004; Garrison & Vaughn, 2008; Moskal et al., 2013). Due to the complexity of blended learning, development and implementation are not always smooth or successful (Bonk & Graham, 2006; Garrison & Vaughan, 2008; Picciano et al., 2014). A major concern is that some administrators and faculty members do not understand the need for special skills, preparation, and time to design, develop, and teach in multiple learning modalities (Moskal et al., 2013; Skibba, 2014).

As the most important asset in higher education, faculty carry out the mission of colleges and universities every day (Gappa, 2008). Blended learning presents challenges for faculty due partly to complexity of instruction, need for more time, lack of institutional support, changing roles, and difficulty of adoption of new technologies

(Bonk & Graham, 2006; Garrison & Vaughan, 2008; Graham, 2006; Kaleta et al., 2007; Liu et al., 2005; Moskal et al., 2013; Napier, 2011; Ocak, 2011; Picciano et al., 2014; Skibba, 2014). Institutions of higher education must recognize and support all faculty because "constantly changing students, technology, expectations, and discipline-based knowledge require all faculty members to engage in continuous professional development" (Gappa, 2008, p. 52). A focus on improving instructional approaches has been lacking in many institutions of higher education where resources and incentives have not always been provided to faculty (Cook et al., 2009; Garrison & Kanuka, 2004; Johnson et al., 2014). Online environments prompt faculty to assume many roles such as facilitator, instructional designer, technology specialist, and administrative advisor (Neely & Tucker, 2010; Porter et al., 2014). Berge (1995) developed a Role Categories Conceptual Framework to assist in the organization and discussion of these roles. Faculty roles are organized by pedagogical, social, managerial, and technological responsibilities and have been confirmed in research literature (Liu et al., 2005; Kaleta et al., 2007). Research trends in blended learning indicate a dearth of research from the perspective of faculty (Drysdale et al., 2013; Halverson et al., 2014).

Blended Learning Advantage and Effectiveness

A main theme in the literature was the effectiveness of blended learning in terms of student achievement, perceptions, and satisfaction. Blended learning was compared to online or face-to-face learning in terms of student attitudes, motivation, performance, satisfaction, and preference. Student achievement, perception, and satisfaction within blended learning were examined.

Student achievement and performance. Means et al. (2009) conducted an evaluation of evidence-based practices in online learning, and through a meta-analysis found that a significantly larger advantage resulted when instruction combined online and face-to-face elements relative to purely face-to-face instruction than did purely online instruction (p. xv). In addition, the student learning outcomes for those in purely online environments and those in purely face-to-face environments were statistically equivalent. The findings also showed that when a study contrasted blended and purely online conditions, student learning is usually comparable across the two conditions. The evaluation cautions readers that despite the strong evidence for blended learning, the online and classroom conditions differed in time spent, curriculum, and pedagogy and the findings were likely the result of the combination of elements in the treatment conditions (p. xviii). Therefore, additional research is required to control for variables across mediums to the extent possible.

While Means et al. (2009) determined outcomes in blended and online courses to be equivalent, Gutierrez and Russo (2005) found student performance to be higher in blended learning environments over both face-to-face and online environments. Gutierrez and Russo (2005) studied student performance, attitudes, and preferences in an introduction to business course delivered in online, hybrid, and traditional methods. In terms of performance, students in the hybrid course who began with the lowest GPA performed better than those in the other formats. Even as aggregated data showed no significant difference in outcomes between distance and face-to-face education, Zhao et al. (2005) recognized remarkable differences across distance education studies. As with face-to-face education, distance education programs vary a great deal in their outcomes.

Distance education that included both synchronous and asynchronous interactions yielded more positive outcomes. Interaction was the key factor determining effectiveness of distance education. The most positive outcomes resulted from studies with a combination of technology and face-to-face elements. Similarly, Dalsgaard and Godsk (2007) found positive results in student performance when an intentional social constructivist approach was taken toward transforming curriculum for blended learning. Their study was conducted to determine whether a transformation of a curriculum-based and lecture-based module was effective in reducing lecture time, supporting repetition, and supporting educational differentiation. Findings in this study indicated that the reduction of lecture time did not have a negative effect. Students performed better than in previous years showing that self-governed work provided a better way of working with the curriculum. Aspects of the blended approach that worked well for the majority of students included the ability to access learning materials more than once and to select learning materials based on individual need. Interaction with the teacher provided educational differentiation supporting students through asking questions related to his or her specific approaches to the coursework. As Zhao et al. (2005) noted, distance education is just as good or bad as face-to-face instruction can be.

Despite higher performance, Gutierrez and Russo's (2005) study found students gave some of the lowest ratings to course organization, academic standards, and overall learning experience. The only area that received a high rating was the instructor's level of communication. The traditional face-to-face delivery method received the highest ratings from students. Students report higher satisfaction in studies with increased human interaction (Gerber et al., 2008; Gutierrez & Russo, 2005). Gerber et al. (2008)

investigated the impact of tele-tutoring on student behavior and performance in a blended learning course. In order to understand issues of learning support for students and online moderation, the study focused on personal support in the form of tutors rather than on technical support tools. The ways in which the tutors interacted with the students were heavily skewed toward administrative and organizational tasks. On the other hand, students communicated more for content-related and interpersonal reasons. Interestingly, the nature of, rather than quantity of, tutor interactions was positively correlated with student performance. Specifically, tutor interpersonal activities had a positive correlation to student performance. Alternately, the quantity of student activities yielded a significant correlation to performance on the final exam.

Student perceptions and satisfaction. Once students experienced the hybrid delivery format, they selected it as their preference over traditional or online courses (Gerber et al., 2008). While Clayton, Blumberg and Auld (2010) reported student preference for face-to-face learning (73%) over hybrid (25%) and online (2%), they acknowledged lack of experience with online learning as a determining factor. These results could be reflective of 80% of full-time graduate students never having taken an online or hybrid course. Furthermore, it was found that self-efficacy was a determinant in student's course selection.

The notion of improvement with experience was highlighted by Zhao et al. (2005). Specifically, improvements in distance education have been reported due to changes in technology, and an increased amount and variety of support for students and faculty. As students become more comfortable learning online and faculty more experienced with distance education, this contributes to the effectiveness of distance

education. Collaborative learning was found to positively influence student perception of blended learning environments (Akyol, Garrison, & Ozden, 2009; Akyol and Garrison, 2011; Delialioglu & Yildirim, 2007; Dziuban et al., 2005). Student-centered approaches in blended learning were successful in terms of supporting students in controlling and regulating their learning (Delialioglu & Yildirim, 2007). Delialioglu and Yildirim (2007) looked at student perceptions of effective dimensions of interactive learning in a blended learning environment. A case study was conducted with 25 students enrolled in a computer networks and communication course at a public university in Turkey. Through the triangulation of data from interviews and computer logs, the findings suggest that both instructivist and constructivist philosophies were found to be beneficial to student learning. The overall course design took an instructivist approach, but the online activities were closer to a constructivist epistemology. When students had previous content knowledge, the blended course was successful in relating that knowledge to newly acquired knowledge. Students found the goal orientation of the course to be more sharply focused than general. Students were found to have both intrinsic and extrinsic motivation, which proved important for learning. With respect to motivation, the students perceived the instructor as a guide and an important source of motivation. Further, they saw their role as active, with the course being student-centered. Students indicated the face-to-face classroom activities as affecting their learning in a positive way by supporting collaborative learning strategies. Similarly, Ligorio and Loperfido (2012) found that as students move through collaborative learning activities and thinking structures change, emotional experience switches from a negative to a positive dimension

through the construction and internalization of social rules, shared practices, and common aims.

Akyol et al. (2009) took a mixed method approach to studying developmental differences of social, teaching, and cognitive presences in a community of inquiry in both an online and blended learning environment. The triangulation of multiple qualitative and quantitative data sources revealed development of a community of inquiry with a sense of all three presences evident in both the online and blended environment. Affective communication was higher in the online course. Group cohesion was found to be higher in the blended course. There was a higher perception of social presence in the blended course. Interestingly, there was a higher perception of teaching presence in the blended learning course. Cognitive presence was perceived to be strong in both modalities. The integration phase was significantly higher in the blended course and the exploration phase was significantly higher in the online course. Finally, there was no significant difference in terms of student performance between the blended and online environment. The study affirmed the use of collaborative activities for deeper and meaningful learning.

Blended Learning in Higher Education

Institutional level. Academic leaders perceive learning outcomes for blended learning more positively than online education and more superior face-to-face instruction (Allen, Seaman, Poulin, & Straut, 2016). Over half (55%) of all higher education institutions within the United States offered at least one blended learning course (Allen et al., 2007). This may be understated as some institutions may not be aware of all blended or hybrid courses beings offered. Some faculty convert face-to-face courses to a blended

course formats without notifying administration, as they still require a classroom. Blended courses are not offered as often within continuing education at both public and private institutions. The percentage of online delivered content to determine whether a course was blended or hybrid according to their research was between 30% and 79%.

Undergraduate. Blended learning mostly occurs at public institutions in undergraduate courses as indicated by 45.9% as of fall 2004 (Allen et al., 2007). Blended courses are offered to a greater extent at institutions with higher student enrollment. For example, there were 57.6% undergraduate blended courses at institutions with 1500 to 2999 students compared to 81.5% undergraduate blended courses at institutions with 7500-14999. If an institution only offers online or blended courses, baccalaureate institutions tend to offer blended courses. Associates institutions were the only institution type to increase the percentage of blended courses offered during the timeframe of this study. With respect to institutions offering blended programs, public institutions again offer the highest percentage at the undergraduate level. Core faculty at undergraduate institutions are used at a higher percentage in blended programs over online programs.

Graduate. At the graduate level, blended learning is occurring at private institutions more when private for-profit institutions are included (Allen et al., 2007). If private non-profit, private for-profit are broken out, the greater percentage of blended courses occurs at public institutions followed by private for-profit and then private non-profit. The percentage of blended courses increases in institutions with higher student enrollment. If an institution only offers either online or blended, doctoral/research and masters institutions were found to only offer online courses. Private non-profit

institutions offer a percentage of blended programs close to what is offered online. Core faculty at doctoral/research and masters programs teach a higher percentage in blended programs over online programs.

Academic disciplines. Blended programs are offered at a higher percentage in business, liberal arts, general studies, humanities, and health profession programs (Allen et al., 2007). A study of blended program penetration rates indicates that it may be easier for an institution to move a program from face-to-face to the blended format than to completely online. This is inferred by considering the faster growth rate of online course offerings compared to the penetration rate of blended programs where there is also a face-to-face programs offering. Blended courses are not offered as often within continuing education at both public and private institutions.

Faculty. Based on a survey with responses from more than 10,700 faculty from 69 colleges and universities across the United States, full-time and part-time faculty at every stage of their career whether on tenure-track or not are involved in online instruction (Seaman, 2009). Women are largely represented within the part-time and non-tenure track faculty category and, therefore, develop and instruct more online courses than men due to a higher percentage of faculty involved in online learning being part-time and non-tenure track. Core faculty are represented at a higher percentage in blended programs over face-to-face and online (Allen et al., 2007).

Full-time faculty. The level of faculty involvement and presence in the online learning environment can vary in both distance education and blended learning courses. Without faculty advocates driving blended learning adoption, institutional administration can experience resistance in the acceptance and implementation of blended learning

initiatives. Some full-time faculty initiate experimenting with blended learning to determine potential student benefits.

Blended learning was found to benefit adult students by providing choice, increased time with content, and flexibility of access (Leh, 2002). With the support of a grant, three graduate hybrid courses were developed. Data were collected over two years from a total of 12 course sections. Using a mixed methods research approach, data collected through online messages, surveys, observations, and interviews were analyzed from in-service teachers in a Master's degree in Instructional Technology program. Support of hybrid courses was confirmed among participants. The study uncovered design, organizational, and instructional approach strategies including alternating synchronous and asynchronous communication that would enrich engagement and sense of community in the online environment.

Similarly, Riley, Gardner, Cosgrove, Olitsky, O'Neil, and Du (2009) at the University of Massachusetts Dartmouth received a grant from the Davis Educational Foundation for a project titled "Implementation of Blended Learning for the Improvement of Student Learning." Experimentation with blended learning occurred in economics, accounting, and intermediate writing courses. Student learning was compared between face-to-face and blended courses. The results were mixed with increased student learning in the accounting blended course over the accounting face-to-face course, no difference in the economics course, and indications of higher performance and more in-depth learning in the intermediate writing blended course.

Moskal and Cavanagh (2014) from the University of Central Florida conducted an evaluation of a project initiated by a Next Generation Learning Challenges (NGLC)

grant, which was to assist in the expansion of blended learning programs. This project provided online tools through a website that was created under a Creative Commons license agreement called *The Blended Learning Toolkit* to 20 participating campuses of higher education institutions. There were 131 faculty and 79 courses involved in the project. With an overall response rate of 56% from an evaluation survey, 74% of those early adopter faculty indicated that they would definitely or probably teach blended or hybrid courses again, 7% indicated they would definitely or probably would not, and 19% were not sure. Faculty perceptions of positive aspects of blended courses included: (a) best of both worlds/convenient/broader range of materials, (b) individualized/more attention to students, (c) more and better interaction with students, (d) increased student independence, and more face-to-face class time for specifics.

Part-time adjunct faculty. Part-time or adjunct faculty have been found to be just as effective as full-time faculty as indicated by student learning and through student evaluation (Landrum, 2009). In a study conducted at Boise State University in the fall of 2003, Landrum (2009) collected and analyzed data from 361 courses taught in eight different academic departments. In order to determine any pedagogical and performance differences between full-time and part-time faculty, Landrum (2009) analyzed faculty demographic data, teaching evaluations, and grade distribution data. Some findings included no significant association between full-time and part-time faculty and the instruction type (in person, internet, or telecourse). A significant association was found for campus email addresses and offices with a higher percent of full-time faculty having both. In addition, a significant association was found between faculty status and proportion of lower-division or upper-division courses taught. Full-time faculty were

found to teach more upper-division courses with part-time faculty teaching a higher percentage of lower-division courses. Additionally, there was a significant difference between faculty status and total years of teaching experience and number of classes taught per semester. In both instances, full-time faculty had more teaching experience and taught more classes per semester. An analysis of teaching evaluations as well as grade distribution indicated no significant difference between full-time and part-time faculty. Part-time faculty perform just as well as full-time faculty even in the absence of diminished resources and support.

Meixner et al. (2010) investigated part-time faculty experiences at a mid-sized, comprehensive public university in the Mid-Atlantic region of the United States to provide insight into this critical population of faculty. Recognizing a dearth of empirical scholarship on the experience of part-time faculty and the imbalance between existing qualitative and quantitative research, Meixner et al. (2010) conducted a qualitative study with 85 part-time faculty representing a 31% response rate. An analysis of the data revealed three core themes: (a) receiving outreach, (b) navigating challenges, and (c) developing skills. The part-time faculty experienced inconsistent outreach related to orientation and mentoring. The challenges more frequently encountered included engaging students, quality of work-life balance, and community disconnect. With respect to developing teaching skills, part-time faculty voiced a desire to receive assistance with general and specific technology, peer review and sharing of teaching strategies, course planning strategies, and assistance in understanding how to motivate students. Meixner et al. (2010) suggest a slow and prudent effort in promoting part-time faculty engagement and development. A suggestion for a college or university official to take on the role of

advocacy for this faculty population was given. In addition, suggestions were offered for outreaching and communicating with part-time faculty such as bi-weekly electronic newsletters, targeted messaging through email distribution lists, and professional development opportunities specific to the local needs and context. Finally, faculty were recommended to be surveyed once some of these suggestions are put into action to determine improvement in satisfaction.

Liu and Zhang (2013) analyzed institutional and individual level data to examine part-time faculty employment in colleges and universities in the United States. Data from the Integrated Postsecondary Education Data System (IPEDS) for institutional level data and the National Study of Postsecondary Faculty for individual faculty data was examined. The institutional sample was 1,364 with 503 being public and 861 being private institutions. Of the 861 private institutions, 18 were for-profit institutions. The faculty sample was drawn from 4-year institutions, had faculty status, and had valid discipline information. A final sample of 16,010 faculty from 550 institutions represented the individual level data. Seven hypotheses were tested and affirmed through non-linear regression for institutional level analysis and standard logistic regression for the individual level analysis. Results indicate that private institutions have a higher percentage of part-time faculty than public institutions supporting the first hypothesis that public institutions are more likely to be constrained by state regulations. Additionally, the study found that the higher the percentage of part-time students, the higher the percentage of part-time faculty. Similarly, higher percentage of revenue from student tuition and fees, the higher the percentage in part-time faculty was found. Further, the presence of a faculty union was positively correlated to employment of part-time faculty.

The more financially stable an institution was, the lower the share of part-time faculty that was found. When there was a higher than average full-time faculty salary, the proportion of part-time faculty in that institution was higher. Institutions in large cities had a higher proportion of part-time faculty. The institutions with a larger student enrollment had a lower proportion of part-time faculty. In institutional classification or context, the largest gap found between public and private institutions in terms of share of part-time faculty was at liberal arts institutions. An institution's use of part-time faculty is strategic and is influenced by financial well-being and dependency on tuition and fees revenue, state regulations, faculty unions, and whether the institution's mission is mainly for research or teaching.

Blended Learning Practice

The faculty perspective is minimally represented within blended learning research. Research topics relate to faculty perceptions and satisfaction (Drysdale et al., 2013; Halverson et al., 2014), faculty attitudes and motivations toward blended learning (Drysdale et al, 2013; Halverson et al., 2014), faculty professional development (Drysdale et al., 2013; Halverson et al., 2014), and some discussion on faculty roles (Halverson et al., 2014). Although this research has brought value to blended learning, there is still a need for administrators and faculty to be cognizant of the need for special skills, preparation, and time to design, develop, and teach in multiple learning modalities (Moskal, Dziuban, & Hartman, 2013; Skibba, 2014). Blended learning has the potential to produce better student outcomes when the most effective methods and practices of face-to-face and online learning are taken advantage of (Garrison & Kanuka, 2004; Kaur, 2013; Lee & Dashew, 2011; Yoon & Lim, 2007). Faculty find it necessary to reexamine

traditional views of teaching and learning assumptions when designing, developing, and instructing in blended learning environments (Garrison & Kanuka, 2004; Garrison & Vaughn, 2008; Moskal et al., 2013). The following sections explore research related to faculty perceptions and experiences with blended learning.

Faculty perceptions and satisfaction. Faculty perceived blended learning to require more time and commitment compared to face-to-face instruction (Napier, 2011; Ocak, 2010; Ocak, 2011; Skibba, 2014). To further explore faculty perceptions of blended learning, Ocak (2010) conducted a study with 73 faculty members. Findings were grouped by faculty satisfaction with blended teaching, perceived impact of the faculty role, perceived impact on student learning, perceived impact on student motivation, and blended teaching advantages and disadvantages. Through Ocak's (2010) mixed methods approach, he found that faculty perceived blended learning to require more time, commitment, and creative approaches to teaching. Similarly, Napier (2011) reported on the time commitment as a challenge for faculty in managing in-class time, balance of face-to-face and online components, engaging and motivating students, ensuring sufficient out-of-class support, and assess student preparedness for the online environment. Napier (2011) reported positive blended learning elements to include the ability for faculty to utilize their expertise, their knowledge of technology, and provide online support. The importance of faculty choice with regard to how students learn and how to teach adult students was a major finding in a study conducted by Skibba (2014) and noted by Wach et al. (2011). By providing choices, faculty selected delivery format based on comfort level, content, learning activities, and variety.

While faculty indicated blended learning to be more relevant to college students rather than face-to-face learning, they were uncertain as to whether student motivation, self-confidence, or attitudes toward learning improved (Ocak, 2010). Napier (2011) looked at the student perspective with data collected through a student survey given at the midpoint and end of the semester. While student performance was comparable between the traditional and blended learning sections of the course, student results indicated high levels of interaction between students and their instructor. Students reported flexibility, interaction with professor, independent learning, authenticity, learning style, and social presence as positive blended learning elements. With regard to concerns or challenges, students noted blended learning requiring discipline, time management skills, investment of greater time, comfort with technology, and conflicts with preferred learning style. Ocak (2010) reported faculty perceptions on student learning as mixed. Reasoning points to a lack of student engagement through use of technology and need for faculty to provide opportunities through student-centered techniques by integrating different cognitive and affective teaching methods. Thus, these teaching methods resulted in maintained social interaction and cognitive presence. Napier (2011) noted faculty training and development as important and helped in the creation of a community of sharing. Recommendations for providing clear student expectations and support throughout the semester was offered. To further assist students, faculty office hours and tutoring was suggested along with proactive student outreach through the use of an early warning system. Consistency was noted as important to address differing student comfort levels with technology. The time required to completely redesign a course for the blended learning environment was emphasized which supported a proper training

effort. Additionally, a shift in faculty's teaching style was highlighted with a need to support students with technology.

Another study conducted by Ocak (2011) found through an exploratory case study with 117 faculty members to examine problems encountered, instructional processes classification was the highest rated area of challenge facing faculty in blended learning environments. Of the variables found discouraging teaching of blended courses, three classifications emerged: (a) instructional processes, (b) community concerns, and (c) technical issues. Eight themes emerged from the three classifications. The most frequently identified problem fell into the instructional processes classification (55.47%). Within instructional processes, the theme of complexity of instruction had the highest response (24.93%) followed by lack of planning and organization (13.15%), lack of effective communication (9.31%), and time commitment (8.08%). Although time commitment was a concern, faculty still reported a high level of satisfaction with being able to teach in the blended learning environment (Ocak, 2010). The second most frequent area of concern next to instructional processes was community issues (28.9%) with themes of lack of institutional support (17.26%) and faculty changing roles (11.64%) (Ocak, 2011). Thirdly, technical issues (15.61%) was broken down further to faculty adoption of new technologies (10.68%) and lack of electronic means for communication (4.93%). Blended learning requires an intentional systematic design of pedagogical and technical aspects. Faculty must modify their approach toward instructional strategies and activities prior to implementation. Skibba (2014) reported teaching in a variety of formats resulted in improved pedagogy in alternate formats, a questioning of student learning assumptions, and expansion of new teaching and learning

strategies. It was noted how challenging and time consuming it was for faculty to keep up with constant redesign and updating of content as they were required to teach the same course in two or three course delivery formats. The challenges were multiplied when faculty taught more than one format at the same time. The blended format was noted as the most difficult for faculty. A recommendation to communicate both the opportunities and challenges of the various course formats to students and faculty was made. Another consideration offered was to evaluate each instructor's ability to teach in the various course formats instead of just assigning them.

Woods, Baker, and Hooper (2004) conducted an online survey with 862 faculty from 38 colleges and universities using the Blackboard Learning Management System (LMS) to determine uses and perceptions of the LMS, and what factors predicted use and positive perception of the LMS as a supplement to face-to-face teaching. The majority of participants considered themselves computer literate, had some experience with an online environment, and received at least an hour of training. The majority taught undergraduate courses (90%). Findings revealed a dominant use of the LMS for course administration tasks including course document and resource delivery. Conversely, the majority did not use the LMS for assignments or interactive features. Further research looking at faculty pedagogical style and usage of the LMS was suggested. With regard to perceptions of use for assessment of student work and instructional capabilities, findings indicated that faculty perceived the LMS to help them more clearly communicate information about course procedures and requirements (82%), better manage time (65%), that students expect the use of the LMS (72%), and the LMS enhanced the students' ability to learn (62%). In addition, findings noted that the majority of faculty did not use

the LMS for its potential psychosocial benefits. Female faculty were found to be more likely to use course administration and management features as well as have more positive attitudes toward the LMS. No significant difference for gender in the use of the LMS for instructional tools was found. With regard to age, faculty between the ages of 43 and 55 years old used the LMS the most for course administration and management and instructional applications. Faculty under 25 years of age were most likely to create discussion folders for course procedures and indicate the LMS helped them mentor their students. Faculty over the age of 55 stated the LMS helped them build stronger relationships with students. Faculty experience with the LMS influenced attitudes about the benefits of the LMS on each item except: (a) allowing faculty to more effectively assess student learning, (b) mentoring students, and (c) building stronger relationships with students. This study demonstrates the pre-existing perception that use of the LMS would be a supplement to face-to-face instruction and not a modality viewed equally for the purpose of blending the two modalities.

Zhu, Valcke, and Schellens (2010) interviewed 60 Chinese teachers in Beijing, China and 30 Flemish teachers from Flanders, Belgium to examine their perspectives as to their role in higher education and their views about adopting a social-constructivist approach to teaching and learning. Specifically, the context was in relation to the integration of online collaborative learning in blended learning environments. Participants completed the Cultural Environment Survey and the Teaching Style Inventory. The results indicated that Chinese and Flemish teachers' perspective on power distance and collaboration were similar. Power distance refers to "…the degree to which less powerful people in a society accept inequality in power" (p. 148).

Competition was emphasized more by Chinese teachers. With respect to teacher roles, Chinese teachers saw themselves more as an expert, authority, and a model compared to Flemish teachers. Older teachers in both cultures emphasized the expert and authority roles. There was no difference in gender. Both groups of teachers stressed adopting different roles based on course objectives, student capabilities, and class size. Chinese teachers saw younger students as not capable of independent thinking. This was less so for Flemish teachers and as a result Flemish undergraduates worked on cases and projects more than Chinese undergraduates. With regard to support for social-constructivist principles, a majority of Flemish teachers apply them extensively. Alternately, only a small number of Chinese teachers support or apply these principles during teaching. In terms of e-learning, the majority of Chinese teachers had not adopted it. Cultural differences did influence adoption of e-learning and social constructivism. Flemish teachers more widely applied the learner-centered and social constructivist approach. There was no significant difference between the two cultures with respect to student-teacher power distance. Chinese teachers exercised authority with friendship in their relationships with students. Chinese teachers had closer friendship relationships with students outside of class. Many Chinese teachers were unwilling to adopt innovations unless part of their evaluation criteria.

Faculty attitudes and motivations. Faculty views of and attitudes toward technology have been found to influence its use and integration in learning environments (Georgina & Olson, 2008; Kim & Baylor 2008; Papanastasiou & Angeli, 2008; Tabata & Johnsrud, 2008; Teo, Lee, & Chai, 2008). In an effort to understand the lack of computer use in instruction, Papanastasiou and Angeli (2008) focused on psychometric properties

of the SFA-T3 instrument in order to analyze factors impeding teachers' use of computers. Findings show that knowledge and use of computers, confidence, attitudes, technology infrastructure and support, and beliefs about technology as a change agent played an important role in the successful integration of information technology in schools. Similarly, Teo et al., (2008) examined 239 pre-service teacher's attitudes towards computers by extending the use of the technology acceptance model (TAM) framework with subjective norm and facilitating conditions that exert influence over a person's desire to perform a task acting as external variables. Findings indicated that perceived usefulness, perceived ease of use, and subjective norm was a key determinant of computer attitude. Finally, computer attitude is noted to not be the only determinant in predicting actual usage.

Tabata and Johnsrud (2008) investigated faculty participation with technology use, attitudes toward technology and distance education including blended learning, and adoption of innovations. The research site was a public postsecondary 10-campus system in the western portion of the United States including a research university, two baccalaureate-granting colleges, and seven community colleges. Paper-based and web-based surveys sent to 4,534 individuals yielded a 45% return rate for 2,048 responses. The theoretical framework grounding the study was diffusion of innovation theory. Four key dimensions were conceptualized relative to participation in distance education: (a) technology use, (b) attitude toward technology, (c) attitude toward distance education, and (d) adoption of innovations. Within the dimension of technology use, *using software applications* and *e-resources in conducting work* increased likelihood of participation in distance education. For the dimension of attitude toward technology, *I am skillful in*

using teaching and *technology is important for conducting professional work* resulted in an increased likelihood while *resources are available to support technology need* indicated a decreased likelihood. Under the attitude toward distance education dimension variables, *I have distance education instructional skills* and *the quality of distance education instruction and learning is the same as face-to-face* indicated an increased likelihood while *the institution values distance education* indicated a decreased likelihood. The adoption of innovation dimension variables increasing the likelihood of participation were: *distance education is compatible with my work style, my self-image is enhanced by using technological innovations, distance education instruction is difficult, I am able to see the results of distance education delivery*, and *I am able to try-out distance education before deciding to use it*. The variables that decreased the likelihood were: *participation in distance education is voluntary, the advantages of distance education outweigh the disadvantages*, and *I am able to share the results of using distance education with others*. Demographic variables that increased the likelihood included age while variables decreasing the likelihood were minority students, associates colleges, and baccalaureate colleges. Interpretations for the results were provided, and suggested distance education policies that meet both faculty and institutional needs are challenging.

To illustrate how faculty perceptions of technology influence pedagogical decisions, Georgina and Olson (2008) conducted a study to explore how faculty self-perception of technology literacy predicts pedagogical practice; to what extent a relationship exists between faculty technological literacy and pedagogical practice when controlling for faculty training; and how the integration of technology explains pedagogical practice. Faculty rank representation included distinguished professors, full

professors, associate professors, assistant professors, instructors, adjuncts, and fixed term. Results informing the first research question of how faculty self-perception of technology literacy predicts pedagogical practice showed that faculty technology skills correlated strongly with pedagogy both in design and delivery. Faculty who had strong technology literacy integrated technology literacy into the design of course assignments and preferred to integrate more technology than typical in a traditional classroom. This in turn increased students' access to technology and interactive learning. Results related to the second research question of whether a relationship exists between faculty technological literacy and pedagogical practice when controlling for faculty training showed relationships between two of five strategies for training. Those being small group faculty forums with a trainer and personal time with tutorials and pedagogical practice. Pedagogical practice was positively influenced by technology training strategies of small group forums and personal time with resources. Results related to whether the integration of technology explained pedagogical practice revealed very strong relationships between technological literacy and integration. Findings support the need for increasing faculty awareness of technology as it applies to enhancing pedagogy. The majority of faculty believed it was the institution's responsibility to train faculty. Faculty indicated that small group faculty forums with a high quality trainer was the most effective training approach. Out of those surveyed, 71% claimed to teach with some type of technology tools. Recommendations for further research included focus on effective faculty training strategies that are individualized and, technology assessment tools at the user level. In order to develop technology-literate faculty, it was recommended that institutions provide release time, technology mentors, and supplemental pay increases.

Departmental-level surveys for determining individual faculty technology needs was suggested to be implemented. The importance of clearly stating follow-through procedures with precise goals and objectives for the university, college, department, and faculty was noted. Faculty support with technology, pedagogy, and instructional design was noted as important. Faculty should have a voice in IT infrastructure conversions and software choices. Institutions should also consider user-based technology assessment techniques; departmental-level faculty-run technology forums; and faculty-run technology forums. Recommendations for training workshops were the following: limiting the number of participants per workshop; encouraging participants to leave the workshop with an immediate goal to implement the new skill in practice; providing opportunity for follow-up workshops in which participants share their successes, failures, and learning processes; and offering university or department sponsored technical support to individual faculty members between each official session. Faculty need to be both information and technology literate therefore, training plays a pivotal role and should focus on how technology can enhance pedagogy and be integrated into teaching. Ali et al. (2010) noted faculty that needs can be addressed through training that focuses assessment skills, use of information technology, communication skills, and classroom management skills as the top training needs.

Institutions should consider providing incentives to faculty in order to influence their use of technology and involvement with blended learning (Georgina & Olson, 2008; Oh & Park, 2009). Cook et al. (2009) studied how extrinsic and intrinsic reward systems played a role in faculty interest to teach or remain teaching electronic or distance education courses. The study indicated the need to address both intrinsic and extrinsic

incentives to motivate faculty to continue to be involved with distance education. Lack of institutional assistance in the form of technical support was found to be an inhibitor for faculty to teach in electronic or distance education. Institutional support could potentially reduce the time required to teach in these environments and impact faculty motivation in a positive way.

The benefit of faculty mentorship influenced Kim and Baylor (2008) to present a framework for a computer-based change agent in order to impact pre-service teachers' attitudes toward technology integration as well as improve their computer use effectiveness. A Virtual Change Agent (VCA) should incorporate the role of mentor, motivator, and companion. They discuss persuasion, perception, and concerns in relation to the framework as well as design considerations for the VCA. The impact on learning and instruction is explained as a process of changing perceptions and concerns about the value of using technology to support learning. The process begins in the knowledge stage where existence of a technology and how it works is acknowledged. It continues in the persuasion stage where attitudes about technology integration is shaped. At the decision stage, activities influence adoption or rejection of technology. The implementation stage involves the actual integration of technology. Finally, the confirmation stage involves a decision to continue or discontinue the use of technology. Future research using the framework presented was recommended so that research directions and initial design guidelines can be determined.

Oh and Park (2009) examined faculty attitudes and involvement with blended learning among coordinators and faculty of the Institute of Higher Education's (IHE) 151 doctoral research universities. Respondents included 34 IHE coordinators and 133

faculty members from 33 universities. The most common format of blended learning used was face-to-face instruction with supplementary online instructional materials. The majority of faculty were actively involved in designing, developing, and maintaining their instructional materials. Faculty had positive attitudes believing blended instruction improved quality of instruction. They were motivated to try blended learning and to learn technology. Faculty were in favor of both online and blended modalities but perceived blended instruction as overcoming limitations of online instruction. Most faculty preferred classroom instruction to online instruction and were more involved with blended instruction over online instruction only. Goals of the institution included increasing blended and online degree programs. Because of this, faculty were provided support through help desks, workshops, instructional designers, and technology specialists. At the same time, inhibitors affecting faculty attitudes included faculty workload and lack of motivation and enthusiasm. The need for institutions to support faculty with incentives as well as change their support systems was acknowledged. Interesting data surfaced with respect to age groups and faculty status. Assistant professors between the ages of 31 and 40 had the highest confidence level. Institutions should align their goals with faculty evaluation and promotional policies.

Related to faculty support systems, Dolan (2011) conducted a qualitative study with 28 adjunct faculty members working at the same institution to determine whether professional development sessions with peers affected faculty motivation and positively impacted students. Faculty acknowledged appreciation for continued opportunity to learn from their peers. Adjunct faculty's primary allegiance was to their students rather than the institution. Furthermore, they indicated that their motivation would remain

unaffected toward providing exceptional service to students by conducting face-to-face meetings. Face-to-face meetings were, however, noted as a positive to increase institutional loyalty.

King and Arnold (2012) used a collective case study approach to investigate how blended learning faculty consider factors of course design, communication, and motivation when designing their courses. Five college of education professors who had taught blended learning from a large, Midwestern research university were surveyed and then interviewed. Communication between students and the professor and among students, were deemed as critical success factors. For effective blended learning design, an intentional course plan incorporating strategies for engagement was noted as imperative. Faculty's approach to blended courses varied, but each included live events, online content, collaboration, assessments, and reference materials to some extent. Success strategies noted for faculty included seeking out training and supplemental resources in order to be prepared. Peer collaboration and sharing were highlighted as helpful in educating and motivating peers to be involved with blended learning.

Professional development. Another theme found in a limited manner in the research literature focused on faculty professional development. Some of the topics reviewed in the literature include faculty training needs, motivation for training, satisfaction and perception of professional development effectiveness, and models for professional development. Moskal et al. (2013) note that blended learning is a complex process that requires high quality support at all levels. Moskal et al. (2013) worked on a project funded by the Next Generation Learning Challenges grant called the Blended Learning Toolkit which provides blended learning best practices, strategies, models, and

course design principles to anyone accessing the website through a creative commons attribution-non-commercial-share alike license. King (2002) and Owston**,** Wideman, Murphy, & Lupshenyuk (2008) suggest faculty would benefit from engaging in blended experiences. Furthermore, King (2002) recommends professional development programs to incorporate reflective practice, facilitation, and communities of practice. Joosten, Barth, Harness, and Weber (2014) conducted a study to understand impact of instructional development and training on the effectiveness of blended courses. The goal of the study was to motivate instructors and inform institutions on the improvement of blended learning. The study explored instructor perspectives on blended courses and instructional development through self-reported data on a Likert-survey and open-ended survey responses. Likert responses were measured using univariate analyses. Open-ended responses were analyzed using an inductive analytic process. Additionally, course level data on retention and student success were analyzed. Faculty rank represented included professors, associate professors, assistant professors, academic staff, lecturers, and a teaching assistant. Findings indicated that perceptions of student interaction were higher among instructors who attended the faculty development program for blended learning than those who did not. Conversely, results were not significant on the impact of instructional development and training on perceptions of student learning or satisfaction. Findings from the open-ended questions revealed some similarities and differences between those who attended instructional development and training and those who did not. The blended learning benefit of flexibility was most notable, while efficacy of online learning was the most noted difference. Data analysis suggested that instructors who lacked knowledge of blended learning integration practices and medium choice

resulted in a dominant use of and preference for face-to-face. An analysis of student retention and performance data revealed that students were more likely to complete a course and earn a letter grade of C or better if the instructor attended the development and training program. Instructors who participated in blended instructional development were more likely to design and teach blended courses that had a positive impact on students.

With regard to the examination of faculty motivation for training, Backhaus (2009) conducted a study with business adjunct faculty, recognizing the importance for adjunct faculty to receive training in pedagogical methods and curriculum development. Backhaus (2009) identified a gap in the research literature for understanding the interests, needs, and desires of adjunct faculty. The study's conceptual framework was based on Vroom's expectancy theory which states motivation is based on the presence of expectancy, instrumentality, and valence. Expectancy refers to believing increased effort will result in increased performance. Instrumentality refers to believing that increased performance results in particular outcomes. Valence refers to believing the outcomes are desirable to the individual. Backhaus (2009) posited "that the degree of expectancy, instrumentality, and valence regarding professional development will correspond to the underlying reasons for taking the adjunct position" (p. 41). In addition, Backhaus (2009) posited that affective and normative organizational commitment are positively related to motivation for training and professional development. There were 1,229 survey respondents of which 71% were male. Using cluster analysis and hypothesis testing, Backhaus (2009) identified four categories of faculty. The first group called the *traditional business adjunct,* who for the most part worked full-time elsewhere, decided

to teach in order to share their experience with students, to apply expertise to a different type of work, and to stay active in the profession. The second group called the *migrants* entered higher education with a desire to gain a full time position. They wanted to share their experience, gain teaching experience, supplement income, apply expertise to another type of work, and stay active in the profession. The third group was called the *bridgers* who were transitioning to retirement. They entered higher education to share their expertise and stay active in the profession. The fourth group called the *mentors* taught only to share their experience with students. Most were employed elsewhere with less than half working full-time. This group may already be teaching full-time or part-time at another institution. The results of the study showed that the migrant group scored significantly higher than the other groups, except for valence, for the desire to be rehired when looking at measurements by desire for full-time employment. When examining motivation, the measurements were less pronounced, as *migrants, traditionals,* and *bridgers* scored higher than *mentors*. *Migrants* expressed the strongest desire for professional development because they were interested in full-time employment. When looking at affective and normative commitment, the results showed a positive relationship to motivation for training and desire for professional development.

In an examination of faculty satisfaction and perception of reduced seat time on course development, deNoyelles et al. (2012) found that phenomenal growth in online and blended student enrollment, faculty with varying levels of experience with teaching and technology, and availability of time influenced the need for revision (deNoyelles et al., 2012). In addition, feedback from faculty revealed a desire for early hands-on development work and greater faculty independence in the development of their online

course. Wach et al. (2011) noted faculty should choose his or her own pedagogical, social, managerial, and technical style and determine if learning is taking place. Faculty would then explore the roles and determine what if anything could be added or deleted in order to increase both faculty and student satisfaction and learning (Wach et al., 2011). Faculty desired continued instructional designer support and peer interaction (deNoyelles et al., 2012). The number of face-to-face meetings in the program in the deNoyelles et al. (2012) study was reduced to three times during a 10 week course from once a week face-to-face meetings. Surveying participants who attended two pre-revised sessions and others who attended two post-revised sessions revealed a higher satisfaction percentage in terms of their online course development effectiveness as well as a decrease in the faculty dissatisfaction ratings. There was also an increase in faculty satisfaction with the development program from the post-revision version. Positively, no faculty reported an unsatisfied rating in the revised course. The study's findings support the following elements in a faculty development program: (a) individual and community exploration, (b) balance of autonomy and support, (c) implementation of adult learning principles, and availability of an online repository of tutorials and materials that can be revisited often. The limitations of the study include only measure of faculty satisfaction that stopped at perception. Future studies should look at whether the faculty's course development goals were actually realized.

From a United Kingdom perspective, Owens (2012) surveyed 529 UK university lecturers to uncover their pedagogical beliefs and online teaching practices. Owens (2012) found that there was a considerable difference between the reported pedagogical beliefs and what the lecturers reported as their actual practices when teaching online.

The results call into question the effective use of online learning environments. Lecturers who had previous online training seemed to use the online environment more effectively. Hence, the recommendation for specific training in online environments for faculty so that blended and online courses are designed, developed, and instructed effectively.

Some of the research literature not identified as action research but examples of efforts to solve a challenge or problem in one's own institution highlighted successful or beneficial aspects of faculty professional development programs (Fetters & Duby, 2011; Owston et al., 2008; Wach, Broughton, & Powers, 2011). Fetters and Duby (2011) describe the approach Babson College took toward faculty development including success factors and persisting challenges. Babson matched the stages of curriculum innovation with stages of faculty development resulting in the first stage focusing on design and experimentation with faculty who had an innovative bias toward new technology (early adopters). The second stage brought in the faculty who were more pragmatic and saw technology as a means for increased productivity (early majority) for the launch and revision phase. The third stage brought in the late majority of faculty who were pessimists and basically ignored technology for the growth and expansion phase. Once development in blended learning teaching became a focus for faculty, an Innovation in Blended Learning Faculty Fellows Development Program (Blended Fellows Program) was developed. A three to four month program was comprised of five stages: (a) pre-work; learning in a blended environment, (b) online curriculum design, (c) teach designed online module and act as a student in online modules designed by other fellows, (d) reflection, and (e) teach in a blended Babson program. Babson experienced challenges with funding for faculty stipends so lower than desired numbers of faculty

went through the program. Success factors include stage identification, proper faculty selection, development programs for each stage, faculty incentives, and delivery methods that encourage faculty participation.

Ginsberg and Ciabocchi (2014) reviewed current faculty development practices in traditional, not-for-profit higher education institutions through a 17-item survey delivered to representatives from about 500 institutions. There were 109 individual participants in which responses were utilized. Blended learning faculty training was required for 25% of the institutions, recommended by 51%, and not provided by 10%. The remaining 13% shared that training was offered but not required or recommended. Findings indicated that private institutions were more likely to require faculty development over public institutions, but they were less likely to offer it. Faculty development consisted of internal training courses at 69%, informal mentoring at 67%, and formal mentoring at 31%. Faculty development consisting of certification programs and external training courses were less common. The most common mode of training was face-to-face at 72%, online asynchronous instruction at 55%, blended instruction at 45%, and synchronous online instruction at 30%. While Ginsberg and Ciabocchi's (2014) study noted the blended learning mode of training at 45% compared to face-to-face at 72%, the results of a study conducted by Owston et al. (2008) indicated blended learning as an effective model for professional development positively impacting teacher practice. Ginsberg and Ciabocchi's (2014) study also noted offices responsible for delivering faculty development: academic affairs at 40%, distance education at 26%, and information technology at 26%. With regard to faculty incentives for participating in blended learning instruction, 57% offered no incentives. Participants noted successful elements

of faculty development including program design at 48%, quality of instruction at 47%, convenience of delivery format at 43%, and faculty buy-in at 43%. Improvements for faculty development noted were providing incentives for participation at 48%, requirement of training at 47%, and increasing the number of qualified training staff at 43%. Other suggestions included increasing institutional support/funding at 38%, improving the program design at 29%, offering a convenient delivery format at 18%, and improving quality of instruction at 15%. The percentage of participants who reported blended course instruction as important to the institution's strategic plan was 38%, 30% reported it as tangential, 14% indicated blended learning as vital, and 13% indicated it was not related to the strategic plan. Participants reported faculty development as being vital or important to the institution's strategic plan in 58% of public institutions versus 42% of private institutions. Faculty development was reported as tangential or not related in 48% of private institutions and 30% of public institutions. Institutions requiring faculty development prompted participants to perceive its strategic importance.

Faculty roles. Berge (1995) offered the following faculty or moderator roles pertaining to computer conferencing based on personal experience and a review of the literature: pedagogical; social; managerial; and technical. The role categories overlap as roles, tasks, and functions do not always neatly fit into one category. The role categories were offered as a means to organize and present the discussion.

Wepner, Ziomek and Tao (2003) conducted action research to determine shifting responsibilities faculty have in infusing technology into traditional teacher education programs. The researchers wanted to further determine what skills change as a result of working with technology for faculty and students. Through a study with 39 students,

researchers collected data through observations of student presentations of lessons, students' reflection journals, students' final evaluation of technology requirements, students' lesson plans, and the researchers' journals. Data analysis consisted of pre- and post-study technological surveys to uncover any differences. Data was analyzed for the whole group, individual groups and compared by the professor. The researchers triangulated their individual findings through their reflection journals, students' reflection journals, and students' final evaluation. Next, researchers analyzed their data together for emerging categories. Using a constant comparison method, findings were condensed into four categories. The researchers found that their role shifted as an instructor in that they needed to have a substantial knowledge base about technology use and application for different teaching situations. The student's (teacher candidates) acquired competencies also needed to be evaluated. The researcher's view of themselves as instructors had to change when they did not have the necessary knowledge or skills. In those instances, someone more knowledgeable had to enter to help the students. The researchers also had to shift the way they planned for instruction and supervision as well as the actual instruction and supervision. They had to plan for and test the technology as well as respond to any issues that arose during instruction. Much time was required to revise their courses and supervisory practices. There was increased time with supporting students in and out of the classroom to ensure they acquired the necessary technology competencies to achieve success as teachers. Additionally, the researchers found that more time was required monitoring their students' learning with technology infusion. The shifting responsibilities varied based on researcher/instructor and student background as well as the purpose of instruction.

Liu et al. (2005) examined concerns and issues related to Berge's (1995) role categories in an online MBA program through a case study research methodology. The researchers were interested in understanding instructor's perceptions of online teaching roles and student's perceptions of the four instructor roles. Twenty eight faculty members were interviewed one-on-one using semi-structured questions related to the four role categories. In order to determine the student's perception and satisfaction, program evaluation survey data from a 65-item survey questionnaire using a 5-point Likert scale was used. The findings confirmed Berge's (1995) role categories of pedagogical, social, managerial, and technical. One role that emerged related to the pedagogical category that had not previously been cited in the literature was the *profession inspirer*. The researchers found a variety of factors including timing, course type, perceptions, and moderating skills influencing instructor online presence. The social role was less pronounced. The need for instructors to be educated on evidence of the relationship between social roles and cognitive learning was noted. The researchers recommended further investigation on the relationship between an active social role on the part of the instructor and learner dynamic. The researchers noted complex interplay among instructor roles, variance among online instructors about how they play or perceive their roles, and perceived tension between different roles. Variances were influenced by contextual factors. The study suggested that institutions plan future roles and provide substantial training support for role implementation.

Kaleta et al. (2007) investigated faculty experiences with hybrid courses. The researchers used a qualitative interpretive research methodology and interviewed 10 faculty at three institutions of higher education to understand why faculty adopted and

implemented hybrid or blended courses. The researchers also sought to understand how faculty roles expand when teaching hybrid courses. The research was guided by Rogers (1995) innovation-decision process and Berge's (1995) pedagogical, social, managerial, and technological Role Categories Conceptual Framework. The findings confirmed the need for faculty to modify familiar roles and take on new roles in blended learning environments within Berge's (1995) Role Categories Conceptual Framework. An important consideration was faculty willingness and ability to change in order to teach hybrid courses effectively. The researchers noted the need for faculty to acquire new skills for teaching in blended environments due to significant pedagogical changes necessitated by blended learning. Both environments within the blended learning model were not utilized to their full potential. The findings informed recommendations and considerations for institutional hybrid initiatives, faculty adoption of, and preparation for hybrid or blended learning. Further study into what faculty bring with them in terms of experiences was noted as important.

Bawane and Spector (2009) explored expert opinions on the priority of eight online instructor roles in order to inform training and curricula for online educators. After a review of the literature pertaining to faculty roles including recognition of Berge's (1995) role categories, eight online instructor roles were identified as professional, pedagogical, social, evaluator, administrator, technologist, advisor, and researcher and associated competencies. In order to determine the priority ranking of the roles, a questionnaire was developed and sent via email to individuals deemed experts who had two or more years of experience, were nominated by experts with more than five years of experience, were teacher educators, and were willing to participate. There were

21 of 30 (70%) responses. Data was tabulated with the frequency of ranks and percentage of responses obtained for each role. The pedagogical role was rated having the most priority, followed by the professional, evaluator, social, and technologist. A suggestion for the use of rankings in providing guidelines to develop competency-based teacher training programs was offered.

Neely and Tucker (2010) conducted a single case study to gather data on the costs of unbundled faculty roles. The researchers reviewed, examined, and calculated costs for the following unbundled faculty roles: course instructor; curriculum writer and subject matter experts; instructor/graders; assessor of learning outcomes, and instructional designer. The findings revealed that costs per course of unbundled faculty role were lower than cost per course of hiring traditional faculty. The findings are limited to one institution case site. The study uncovered difficulty in identifying and assigning costs for instructional activities in higher education. Time devoted to course design and maintenance was difficult to determine because time logs for instructional support staff were missing. The study did not take into account time spent on administrative and university service activities. Costs associated with the instruction phase were easier to determine pertaining to faculty salaries, however, faculty supervision and training costs were missing. Additionally, course maintenance costs were difficult to identify.

Summary

There has been little investigation into the roles that faculty take on related to blended learning environments. The research that has been conducted uses Berge's (1995) organizational framework to describe the roles in terms of pedagogical, managerial, sociological, and technological responsibilities and tasks (Kaleta et al., 2007)

The research literature clearly confirmed the need for faculty development and support related to the use of educational technology as well as online and blended learning environments. The lack of institutional awareness and knowledge of the design, development, and instruction of blended learning environments further confirmed the need for investigating faculty experiences with shifting roles when involved in blended learning. This study contributes to the body of blended learning literature, adding understanding of full-time and adjunct faculty experiences as well as possible gaps in skills and institutional support to inform how institutions provide the infrastructure, training, and support necessary to ensure effective blended learning environments that promote student-centered learning and achievement. In addition, this study assists in answering the question of whether and how faculty roles should be unbundled.

Chapter III: Methodology

Research Design Overview

This study followed a qualitative single case study research approach and explored faculty experiences with blended learning in higher education. A single case study approach allowed the researcher to focus on an issue or concern through the selection of one bounded case which illustrated the concern (Creswell, 2013). Specifically, this case study allowed for a deep exploration into faculty, including full-time and adjunct, experiences with and management of shifting roles in blended learning. In order to design, develop, and deliver effective blended learning experiences, an understanding of how best to maximize the benefits of faculty involvement in the process is critical. There is a dearth of existing research examining how instructor experiences change as they design, develop, and instruct in blended learning environments (Kaleta et al., 2007). One outcome of this study has uncovered the need for supporting the shifting roles in blended learning in relation to the use of information and communications technology. This study sought to answer the following overarching research question:

> How do faculty manage the shifting roles required of them in blended learning environments?

Informed decisions for how best to maximize faculty involvement and which institutional resources are required for effective blended learning environments have been uncovered through the exploration of the overarching research question and following research sub-questions:

1. How do faculty perceive their roles shifting in relation to blended learning?
2. How do faculty experience shifting roles in blended learning environments?

3. How do faculty perceive institutional support and resources impacting the management of shifting roles in blended learning environments?
4. What do faculty identify as important components in blended learning professional development programs?
5. How do educational and instructional support staff perceive faculty management of blended learning environments?

The methodological approach outlined in this chapter begins with a discussion on the appropriateness of the case study as the qualitative method used. An overview of information gathered to answer the research questions will be reviewed. The research sample and strategy used to find participants will be outlined. The protocol followed for data collection will be presented. The process used for data analysis and the criteria for evaluating the trustworthiness of the study will be explained. The chapter will conclude with a summary of this methodology chapter providing a cohesive organization of the research design.

A qualitative research approach allowed the researcher to understand the complexity of the faculty experience when involved with blended learning. The case study helped to identify the variables that cannot easily be measured by empowering participants to share their stories in their own voices. Further, a qualitative case study approach supported the consideration of specific contexts in which the participants were situated.

> A qualitative approach is appropriate to use to study a research problem when the problem needs to be explored; when a complex, detailed understanding is needed; when the researcher wants to write in a literary, flexible style; and when the

researcher seeks to understand the context or settings of participants (Creswell, 2013, p. 65).

In my study, I investigated how faculty perceived and managed their shifting roles in relation to blended learning in order to inform how faculty involvement and institutional resources can be utilized to create an effective blended learning environment. As my main research question asked "how" and my sub-research questions asked "how" and "what", the qualitative case study method was selected to best uncover rich detail on the faculty experience. Yin (2014) states that a case study is the preferred qualitative research method "…when the main research questions are 'how' or 'why' questions" (p. 2). Additionally, I had no control over the behavioral events such as instructor to student and student to student interactions that occurred in the blended learning environments as I simply observed the classroom environment without interaction. Yin (2014) states that a qualitative case study method is the preferred qualitative research method when a researcher has little or no control over behavioral events. Yin (2014) states that "a case study is an empirical inquiry that investigates a contemporary phenomenon (the "case") in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident" (p. 16). Blended learning is a contemporary phenomenon and my study focused on a present real-world context.

Overview of Information Gathered and Sources of Data

This study required information from faculty and instructional support staff on their lived experiences with blended learning in order to understand their needs and to inform approaches toward faculty professional development which could foster positive attitudes and perceptions toward the effective use of technology in the classroom for

promotion of a shift from a teacher-oriented toward a student-oriented blended learning environment. An understanding of faculty experiences with blended learning required the collection of data obtained directly from the participants in their own voices.

Table 2

Overview of Information Gathered

Type of Information/Research Questions	What the Researcher Requires	Data Collection Method
Demographic	Participant descriptive information such as age, gender, ethnicity, academic discipline, years of blended learning experience, faculty status, years of teaching experience	Survey
Contextual background information	Institutional background, institutional leadership, history of blended and online learning delivery, instructional design and support services, training and development programs/resources, culture, teaching/faculty philosophy, experience and comfort level with technology	Document Analysis, Interviews with faculty and instructional support staff
How do faculty perceive their roles shifting in relation to blended learning?	Participant perceptions of the roles they take on with blended learning such as facilitator, community builder, instructional designer, technical support, content architect.	Document Analysis, Interviews with faculty, Observations
How do faculty experience shifting roles in blended learning environments?	Participant descriptions and explanations of why, when, and how their roles as faculty change in designing, developing, and instructing in blended learning.	Document Analysis, Interviews with faculty, Observations
How do faculty perceive institutional support and resources impacting the management of shifting roles	Participant descriptions and explanations of experiences in how faculty manage the transition from one role to another.	Document Analysis, Interviews with faculty, Observations

in blended learning environments?		
What do faculty identify as important components in blended learning professional development programs?	Participant perceptions of professional development including priority of importance. Faculty perceptions and satisfaction with experiences of professional development.	Interviews with faculty, Survey
How do educational and instructional support staff perceive faculty management of blended learning environments?	Participant perceptions of how well faculty manage their shifting roles in relation to blended learning. Participant perceptions of how well available support services influence how faculty manage their shifting roles in relation to blended learning.	Interviews with instructional support staff, Document Analysis

Research Participants

In order to gain a deep understanding of faculty experiences designing, developing, and instructing blended learning courses, participants included faculty having experience teaching blended courses at an institution of higher education in New England. As a single case study, this one institution of higher education bound the case to illustrate how faculty manage shifting roles in blended learning environments (Creswell, 2013). Survey results from an informational questionnaire survey adopted from Kaleta et al. (2007) and sent to potential participants informed participant selection for follow up interviews, observations, and document analysis.

Participants were selected through a criterion sampling process for quality assurance within the case institution. This sampling approach was best suited for this case study as it allowed for the selection of participants or cases that met specified criteria to give voice to the management of blended learning environments, which provides support for transferability to other contexts (Creswell, 2013). Criteria for

participant selection included: (a) taught in higher education, and (b) taught a for-credit blended course in the last five years. The sample size was determined by the response to the qualitative survey adopted from Kaleta et al. (2007) sent to potential participants who met the specified criteria. The informational questionnaire survey included 35 questions collecting demographic, blended/hybrid course information and faculty development information. A total of 13 faculty participants responded to the qualitative survey. Five faculty participants were identified through further criterion of who would be teaching a blended course in the spring 2015 semester. Of the 13 faculty participants, 11 responded to an invitation to participate in the next phase of my study including four of whom would be teaching in the spring 2015 semester. Seven of the 11 faculty participants were male. Five of the faculty participants taught in a technology-related discipline. Four of the faculty participants reported an age of 61 or older. Four of the faculty participants reported an age of 36 to 45. Three of the faculty participants reported an age of 46 to 60. Additionally, two interviews with an educational technology and innovation group staff member were conducted at the case site and via telephone in order to address how educational and instructional support staff perceive faculty management of blended learning.

Overview of Faculty Participants

Instructor A is an adjunct faculty member who has been teaching within the computer science discipline for over 15 years. Teaching modalities include face-to-face and blended courses with four years blended learning experience. Instructor A graduated from and was recruited to teach within the institution's computer science program. Instructor A enjoys teaching. The experiences with teaching are "always nice when you

see that the light bulb does go on" and "frustrating because a lot of the people in the class now seem to feel, uh, sometimes entitled, or, they continually want special privileges, whereas in the older days, so to speak, they weren't like that." Instructor A's first impression of blended learning was "not very positive." And "being, maybe old school or old fashioned…one that prefers face-to-face."

Instructor B is an adjunct faculty member who has been teaching for 10 to 15 years within the management discipline. Teaching modalities include face-to-face, blended, and online. Instructor B has one year's experience with blended learning. Instructor B transitioned out of industry to teaching and finds teaching "very energizing" and an "honor" to "play a role in somebody's interest and in furthering themselves." Instructor B does not particularly like the aspect of teaching when students are not prepared or participating. Instructor B's personal experience with educators was noted as "some of them very good, some of them able to bring out the best in students….fortunately I guess most of my experiences have been very upbeat." Instructor B's first impression of blended learning was "that, [it] is harder, but I think it's better."

Instructor C is an adjunct faculty member who has been teaching for over 15 years within the computer science discipline. Teaching modalities include face-to-face and blended with 15 years of blended experience. Instructor C was "just looking for something to do" and "decided to try this" and "sought it out on my own." With regard to personal feelings of teaching, Instructor C reported "good and bad" and "in general, I like it." Instructor C "enjoy[s] the interaction with students" and finds it "kind of interesting to learn something from your students every semester." Instructor C's

personal educator experience was reported as “more formal, more stilted, more by the book” and “less, uh, real life examples.” While Instructor C finds teaching personally fulfilling, the instructor “enjoy[s] the in-class more than I do the blend.”

Instructor D is an adjunct faculty member who has been teaching within the computer science discipline for six to nine years. Teaching modalities include face-to-face, blended, and online with seven years of blended experience. Instructor D graduated within the institution’s graduate program and was recruited to facilitate an online course. Instructor D finds teaching “extremely enjoyable” and has a “sense of pride.” Instructor D likes earning extra money and thinks of teaching as a possible retirement job. Instructor D’s personal educator experience was “fairly positive.”

Instructor E is an adjunct faculty member who has been teaching within the computer science discipline for six to nine years. Teaching modalities include face-to-face, blended, and online. Instructor E began teaching in the online environment and has one year’s experience with blended learning. Instructor E’s parents were educators and reported a “family history and culture of education.” Instructor E started with technology as a learner in an online program. Instructor E’s personal feelings of teaching were expressed as “Oh, I love it! I love it!” and that “the reward is great.” Instructor E finds the students “appreciate what you have to say” and “appreciate your help and support.” Instructor E’s first impression of blended learning was positive. The instructor had asked to be involved in blended learning because the instructor “wanted to do more face-to-face teaching.”

Instructor F is an adjunct faculty member who has been teaching for four to five years. Instructor F currently teaches within the natural science discipline and has

experience with face-to-face, blended, and online teaching modalities. Instructor F has four years of blended learning experience. Instructor F taught during graduate school as a teaching assistant and experienced online components with those courses. Instructor F's personal feelings of teaching include "I like the interaction between the students a lot, whether it be in actual face-to-face environments or in online environments." As a reason for teaching, Instructor F reported "I think it's important to communicate scientific ideas" and "I do derive personal satisfaction from it as well." Instructor F reported very positive experiences and shared "I would say the enthusiasm for the subject as well as just the feeling that [faculty] are engaged with the students. That is the most important thing." Instructor F's first impression of blended learning was "I thought it sounded interesting. I was not completely sure how it would work" and "I guess I could say I was surprised at the variety of formats that were put forth as a blended course."

Instructor G is an associate professor whose discipline is history and has been teaching for 10 to 15 years. Teaching modalities include face-to-face, blended, and online with one year of blended experience. Instructor G's parents were both teachers. With regard to personal feelings of teaching, Instructor G reported "most of it I get an absolute joy. I like having people think"; however he reports that he can get "incredibly frustrated by either the lack of effort by some students or just wondering why you chose this path." As for reasons for teaching, Instructor G reported "You, yourself, as a teacher, get to constantly learn." Instructor G's personal educator experience included teachers who "completely inspired me to do things. They have pushed me" and "I don't remember very many bad experiences with teachers honestly." The first impression of blended learning was noted as "I was probably skeptical when I first heard about it….I

understand some good things about it…. [but] miss the person-to-person interaction with students….perhaps it is because I did not use the technology to the best."

Instructor H is an assistant professor within the management discipline who has been teaching for 10 to 15 years. Teaching modalities include face-to-face, blended, and online with two years of blended experience. Instructor H engaged with education later in life and "by the time I was halfway through it, I knew that I wanted to do a Ph.D., and I loved the university environment." During the doctoral journey, Instructor H was a teaching assistant. With regard to personal feelings of teaching, Instructor H noted "I enjoy teaching" and adds, "As an academic, I see myself as creating new knowledge and then sharing that new knowledge with my students." Instructor H says, "I enjoy teaching in the classroom and I enjoy teaching online as well." Instructor H initially "was lazy at school" and "didn't really engage with it….I certainly wasn't inspired by the teachers." Instructor H's first impression of blended learning was "it has its benefits. I mean you don't have to go into class all the time."

Instructor J is an adjunct faculty member within the computer science discipline and has 10 to 15 years of teaching experience. Teaching modalities include face-to-face, blended, and online with 14 years of blended experience. Instructor J's mother and brother were teachers. Instructor J graduated from the institution and inquired about teaching upon graduation. With regard to personal feelings of teaching, Instructor J "enjoy[s] talking to people, trying to get them excited about the use of technology and trying them out." As for reasons for teaching, Instructor J noted "just because I enjoy, you know, helping people learn, you know, stuff, and it happens to be that my area is computer science, so that's where I'm at." Instructor J's personal educator experience

was reported as "most of them were pretty boring. Lifeless. Didn't have much personality….it wasn't very engaging." The first impression of blended learning was "it really puts the student at a disadvantage, because they have to do it all on their own. Some students don't do very well in that regard."

Instructor K is an adjunct faculty member within the management discipline who has over 15 years of teaching experience. Teaching modalities include face-to-face and blended with almost 20 years of blended experience. Instructor K reported pursuing a graduate degree with the goal to enter education upon retirement. Instructor K has found teaching foreign students not in a blended format to be the most rewarding teaching experience. As for reasons for teaching, Instructor K noted, "you feel like you're doing something that's really helping." Instructor K's personal educator experience was positive: "I've had a lot of good teachers." The first impression of blended learning was reported as "really important and it sped things up, and it also, ah on a hybrid course, you could really increase the course content of the, of a lecture."

Instructor M is an adjunct faculty member who has one year of experience teaching within the marketing discipline. Instructor M has prior experience as a teaching assistant. Instructor M has alternated between the face-to-face, blended, and online teaching modalities within the past year. Instructor M transitioned from industry through maintaining a relationship with a professor. With regard to personal feelings of teaching, Instructor M finds it "very challenging, and really fun. I really love teaching. I did not expect to, expect to like it so much." As for reasons for teaching, Instructor M noted "I consider education, um, uh, um, uh, really, really important in ah, in life." Instructor M's personal educator experience included "some you love, some you don't" and "I

understand not everybody can, uh, can teach to my learning style", but "a lot of times I've actually had to go down and, uh, hit the books and understand things on my own." Instructor M's first impression of blended learning was "I think it's wonderful….I actually really like the blended course."

Administrator A oversees the group responsible for supporting blended learning from an educational technology perspective. Administrator A initiated the blended learning effort for the institution as one of the main projects upon hire in 2007.

Table 3

Overview of Faculty Participants

Faculty Rank	*# of Participants*	*Age*	*Teaching Years*	*Teaching Modalities*
Associate Professor	1	36 to 45	10 to 15 years	F2F, Blended, Online
Assistant Professor	1	61+	10 to 15 years	F2F, Blended, Online
Adjunct	3	46 to 60; 61+; 61+	15 + years	F2F, Blended
Adjunct	2	36 to 45; 46 to 60	10 to 15 years	F2F, Blended, Online
Adjunct	2	36 to 45; 46 to 60	6 to 9 years	F2F, Blended, Online
Adjunct	1	36 to 45	4 to 5 years	F2F, Blended, Online
Adjunct	1	46 to 60	1 year	F2F, Blended, Online

Data Collection Methods

As the researcher, I sought access to an institution of higher education in New England through professional contacts. I was prepared and had sufficient resources to conduct this case study including proper writing materials, personal computer, audio recording equipment, qualitative data analysis software, private quiet place, and web-based resources such as email and survey software.

Data collection methods included in-depth interviews, observations, and document analysis. Permission was granted by my case site to conduct this study. Furthermore, the case site's IRB accepted Southern New Hampshire University's IRB approval for conducting research at their site. Once I received approval from Southern New Hampshire University's IRB, an email invitation to participate was sent to potential participants (see Appendix A). Potential participants accepting the invitation were informed of the case study details as well as provided with an informed consent agreement through an email invitation (see Appendix B). Once informed consent was received, potential participants complete a web-based survey questionnaire adopted from Kaleta et al. (2007) (see Appendix C) to gather demographic data, participant blended teaching experience, and information on participant's preparation for blended teaching.

Interviews. Case participants were contacted to arrange for interviews and class observations. Following Creswell's (2013) approach to qualitative interviewing as well as Yin's (2014) suggested case study interview types, prolonged in-depth case study interviews were conducted through telephone, online WebEx meetings, or face-to-face interviewing with blended learning faculty representing a purposive criterion sampling strategy. According to Yin (2014), "one of the most important sources of case study evidence is the interview" (p. 110). Each first interview conducted took between one hour and one hour and a half. A total of 11 faculty participants were interviewed for the first round of interviews. For the first round of interviews, two were conducted in person, six through WebEx with video, and three through WebEx with audio. Initial interviews were conducted as participants were available between January and April 2015. For participants in which a second interview was conducted, the length of the second

interview was one half hour to three quarters of an hour long and occurred during July 2015. Three faculty participants were interviewed a second time via the telephone. The first interview concentrated on the participant's life history related to teaching and teaching with technology as well as experiences in relation to blended learning. The second follow-up interview focused on clarifying questions in connection to the participant's life and experience through meaning making. In addition, two separate interviews totaling two hours with a staff member focused on educational technology and innovation supporting blended learning were conducted. The first interview was conducted in person and the second interview was conducted via the telephone. Each of the interviews was audiotaped and transcribed. An interview guide based on Kaleta et al. (2007) with 33 guiding questions assisted me during interviewing (see Appendix D). The interview guide adapted from Kaleta et al. (2007) was organized according to Berge's (1995) role categories framework. The questions asked were related to the pedagogical, social, managerial, and technical roles faculty take on in blended learning environments. I followed interview procedures suggested by Creswell (2013) making sure to stay focused on the questions, completing the interview within the time specified, being respectful and courteous, and offering few questions and advice.

Observations. In-person observations were conducted on the first in-class date for four faculty participants who were teaching during the Spring 2014 semester: Instructor A, B, C, and D. My role, as researcher, during the observations was that of nonparticipant observer, where I was an outsider watching and taking field notes, and recording data without direct involvement with activity or people (Creswell, 2013). The purpose for observations was to gain insight into how dual registration, blended learning,

and course expectations were communicated and set up for students. Additionally, I was interested in determining if there were any inconsistencies between what was observed, presented in course materials, and reported by faculty participants. From a managerial role standpoint, the first in-person meeting was assumed to focus on setting expectations for students. Following Emerson, Fretz, and Shaw's (2011) guidance on writing ethnographic fieldnotes, I used jotting notes for observations related to the context of Berge's (1995) Role Categories Conceptual Framework. Specifically, I looked for how faculty addressed pedagogical, social, managerial, and technological considerations in the blended learning course.

Document analysis. Document review and analysis was conducted from documents such as course syllabi and materials, and faculty informational, training and support materials. According to Yin (2014), "because of their overall value, documents play an explicit role in any data collection in doing case study research" (p. 107). Solicitation of documents occurred at the conclusion of the first interviews. Documents such as course syllabi, schedules, and material were collected that showcased whether or how faculty communicate the expectations and management of blended learning environments in consideration of Berge's (1995) pedagogical, social, managerial, and technical role categories. Additionally, institutional web pages were analyzed for insight on how the institution described, positioned, and supported blended learning. Qualitative document analysis (QDA) is a flexible and emergent process that moves between data collection, data coding, data analysis, and interpretation (Altheide, Coyle, DeVriese, & Schneider, 2008). QDA is systematic and analytic, but not rigid.

Timeline. I conducted the first interview in person with two faculty participants prior to the class observation and the second two faculty participants after the class observation. For the faculty participants in which the initial interview was conducted after the class observation, both were conducted via a WebEx online meeting with video. I observed the first evening of class in person at the physical classroom location. All second follow up interviews took place after the physical observation. The first interview with the instructional support staff member was conducted in person while the second interview was conducted via the telephone. Questions asked of the instructional staff member sought their perspective of how faculty address and manage the pedagogical, social, managerial, and technical roles in designing, developing, and instructing in blended learning environments and how faculty are supported through institutional resources.

Analysis of Data

Data analysis within this case study followed an analytic strategy guided by Berge's (1995) Role Categories Conceptual Framework. Yin (2014) notes the strategy of utilizing a theoretical lens as appropriate for case studies that are based on theoretical propositions or frameworks. Specifically, data were analyzed against Berge's (1995) faculty role categories: (a) pedagogical, (b) social, (c) managerial, (d) technological. Through analysis of data, constraints and opportunities were identified that shaped and influenced faculty perceptions and experiences.

This study began with data gathered through a web-based informational survey questionnaire adopted by Kaleta et al. (2007) (see Appendix C) which focused on demographic and hybrid teaching experience data designed to inform the selection of

participants for the following phases of the study. Four faculty participants were selected for two interviews, observations of the first class meeting, and document analysis identified through criterion sampling. Three of the four faculty participants participated in two separate interviews while the fourth faculty participant participated in one interview. An additional seven faculty participants were selected for one interview and document analysis as they were not scheduled to teach a blended course in the spring 2015 semester. Data gathered through interviews with faculty and instructional staff were organized and analyzed according to Berge's (1995) Role Categories Conceptual Framework. Specifically, an interview guide adapted by Kaleta et al. (2007) which organized questions according to Berge's (1995) role categories was used. Data were organized related to the pedagogical, social, managerial, and technological roles faculty take on in blended learning environments.

Data gathered through audio recorded interviews were transcribed. Data gathered from observations in the form of jottings were turned into fieldnotes and then into expanded write-ups. The analytic technique used followed the steps recommended by Creswell (2013): (a) data organization, (b) reading and memoing, (c) describing, classifying, and interpreting data into codes and themes, (d) data interpretation, and (e) data representation and visualization. Data were organized through the use of Microsoft Word and Excel. I then worked through a process of reading through the data transcripts and making notes. The first cycle of coding was conducted through In Vivo coding which uses phrases or words in the participants' own language (Creswell, 2013; Miles, Huberman, & Saldana, 2014). This study values the voice of faculty, and I was particularly interested in their experience as described in their words. The second cycle

of pattern coding considered the first cycle codes and began to identify categories to be reviewed for alignment with Berge's (1995) faculty role categories (Miles, Huberman, & Saldana, 2014). While Berge's (1995) faculty role categories guided the coding process, I remained open to new codes emerging inductively. Categories that emerged outside of Berge's (1995) faculty role categories were analyzed and determined to be constraints and/or opportunities facing faculty. Topical categories of constraints and opportunities included dispositional and attitudinal; blended format advantages and disadvantages; and blended learning knowledge and training. Faculty dispositions were reflected in their perceptions of education, students, technology, and blended and online learning environments. Constraints and opportunities related to blended format advantages and disadvantages were revealed through an exploration of blended learning challenges, institutional dual registration model, student benefits of blended learning, faculty benefits of blended learning, and a perception of blended learning students versus face-to-face students. Constraints and opportunities related to blended learning knowledge and training were revealed through discussions about the introduction to blended learning, initial training, current training needs, wish for upfront blended learning knowledge, receiving information on blended learning, and identification of training priority.

Following Emerson, Fretz, and Shaw's (2011) guidance on observations and writing fieldnotes, I transcribed my jotting notes into fieldnotes immediately after the observation. I read my fieldnotes and approached analysis in the same manner as with the interview transcripts and document analysis.

Document analysis of course syllabi and schedules, faculty development and training materials, instructional and technical support documents, and other online course

communication documents was conducted in order to determine if there was corroboration or contradiction with information gathered from the survey, interviews, and observations. The analytic approach to document review in this case followed emergent qualitative document analysis (Altheide, Coyle, DeVriese, & Schneider, 2008). Qualitative document analysis (QDA) is a flexible approach that focuses on "…discovery and description, including searching for contexts, underlying meanings, patterns, and processes…" (p. 128). Through QDA, I collected and reviewed and compared documents in a systematic manner among participants to clarify themes.

Issues of Trustworthiness

Issues of trustworthiness have been mitigated through the application of Role Management Theoretical Framework guided by Berge's (1995) Role Categories Conceptual Framework during the research design, data collection and analysis, and reporting process. As iterated by Yin (2014), "A major strength of case study data collection is the opportunity to use many different sources of evidence" (p. 119). Further, use of these multiple sources of evidence through triangulation strengthened the construct validity or credibility of the case study (Creswell, 2013). This case study used a methodological triangulation method using multiple sources of evidence including document analysis, interviews, and observations.

Data were organized by creating a case study database consisting of the data and also the researcher's report. Additionally, I maintained a chain of evidence to increase the reliability or dependability of the information in the case study.

Ethical Considerations

As an educational researcher, I understand the issues of bias entering into the research process and was committed to openly exploring contrary evidence of any biases I brought to the process. Approval for conducting this case study research was granted from Southern New Hampshire University's Institutional Review Board (IRB). Approval to access the case site was granted by the site's gatekeeper. The purpose of this case study as well as how the findings will be communicated or shared was disclosed to the participants, and informed consent was gained from all of the participants prior to collecting data. Participants were informed that they could withdraw from the study at any point in time.

Through the use of criterion sampling, I ensured to the extent possible quality assurance at the bounded case study site. I took care to protect the identity and privacy of the institution and participants by using pseudonyms. Data collected have been housed on a personal computer or locked in personal physical files at the researcher's private residence. Throughout the data collection and analysis process, I was cognizant of the responsibility to protect the participants and do no harm.

Summary

In summary, this chapter provided a detailed description of this study's research design and methodology. A qualitative case study design supported the research goals of investigating higher education blended learning faculty's perceptions and management of the shifting roles experienced in designing, developing, and instructing in blended learning environments. Asking questions of what, how, and why of the participants provided rich descriptive data required to answer the research questions and inform how

institutions of higher education can support and provide professional development for blended learning faculty.

The case study protocol outlined in this chapter supported the credibility and dependability of the research design. A review of the literature was conducted to devise a conceptual framework for the design and analysis of the case study. Berge's (1995) Role Categories Conceptual Framework helped to guide and frame data collection, analysis, and the reporting of the findings. Data collected and analyzed through the exploration of this study's research questions relates to Berge's (1995) faculty role categories.

In order to frame chapter IV appropriately and establish context for the blended learning environment at the case institution, it is important to explain dual registration. The institution created a dual registration model in order to address the challenge of low enrollment in blended and face-to-face courses. The dual registration blended model combined one face-to-face course section with one blended course section. From an institutional perspective, the two course sections were treated as one blended course with one assigned faculty member. Students of each course section had different course expectations including attendance requirements. The dual registration model saved the institution money in terms of faculty stipends and with freeing up classroom space.

Chapter IV: Findings

The purpose of this single case study was to explore faculty experiences with blended learning in higher education. This chapter will explore findings from this single case study as they relate to faculty management of shifting roles in a blended learning environment. Findings were gathered, organized, and analyzed according to Berge's (1995) Role Categories Framework: pedagogical, social, managerial, and technological. This study revealed three major findings related to blended learning pedagogy, perceptions of technology, and institutional support and resources. The first part of the chapter explores findings related to blended learning pedagogy beginning with knowledge of blended learning. In order to answer the study's research question, an understanding of how faculty define and view blended learning is key. Equally important, understanding of the institution's motivation for implementing a blended learning strategy is necessary to provide insight into faculty's perception and understanding of blended learning. Additionally, it is important to understand faculty experiences with blended learning to gain insight into how their perceptions are influenced and shaped and impact pedagogical decisions. Thus, the chapter proceeds with findings for how blended learning pedagogy is applied in relation to Berge's (1995) role categories. The second section of the chapter examines findings related to faculty's perception of technology by reviewing level of comfort, helpfulness, and first use of technology. The last section of the chapter explores findings related to the administrative and faculty perspective on institutional support and resources in place to support faculty in blended learning environments. Specifically, the last section shows how the presence or lack thereof impacts effective management of blended learning environments.

Institutional support and resources related to communication, technology, and training and development will be examined.

Blended Learning Pedagogy

In order to address how faculty view and experience the roles they take on in blended learning environments, this part of the chapter will consider the following research questions: *how do faculty perceive their roles shifting in relation to blended learning?* and *how do faculty experience shifting roles in relation to blended learning environments?* The findings related to how faculty perceived and experienced the roles they took on in blended learning environments such as facilitator, community builder, instructional designer, technical support, and content architect are illustrated through document analysis, classroom observations, and/or interviews. Faculty perceptions and experiences were influenced by constraints related to disposition, a lack of knowledge of blended learning best practices, limited training and support, technical issues, and the challenges of a dual registration model. This institutional dual registration model combined a blended course section with a face-to-face course section as one course facilitated by a faculty member. Moreover, perceptions influenced the pedagogical decisions faculty made related to social, managerial, and technological considerations in blended learning environments. While Berge's (1995) Role Categories Conceptual Framework was confirmed in this study as a useful framework for organizing and analyzing faculty experiences related to the pedagogical, social, managerial, and technological roles, it is limited in that it does not assist in the full understanding of how faculty manage shifting roles in blended learning environments and why they make certain pedagogical decisions.

Consistent with King and Arnold (2012), this study's findings indicated inconsistency in the understanding and application of blended learning among faculty participants. The complex nature of blended learning necessitates significant pedagogical changes and requires faculty to learn to teach in new ways (Kaleta et al., 2007). Blended learning faculty require development of multiple competencies related to pedagogical, social, managerial, and technological roles (Bawane & Spector, 2009; Joosten et al., 2014; Kaleta et al., 2007; Ocak, 2011; Owens, 2012; Wach et al., 2011). In order to address how faculty view their role within blended learning environments, this part of the chapter will first consider faculty participants' understanding of what blended learning is and how the institutional positioning of blended learning influenced that understanding. This chapter will also review findings related to the application, or lack thereof, blended learning pedagogy related to social, managerial, and technological considerations.

Institutional adoption. A key aspect within this study's findings was the decision of the institution to implement blended learning in a top-down manner in order to address a business need. Moskal et al. (2013) emphasized the concern that "faculty members tend to be suspicious of top-down initiatives that impact teaching and learning" (p. 17). Administrator A, who oversaw the educational technology and innovation group responsible for supporting blended learning programs, reported that upon hire he was told the institution desired to quickly implement blended learning. Administrator A did not recall blended learning being discussed during the interview, and was not aware that it would be a main focus of responsibility.

The institution was motivated to implement blended learning for a couple of reasons. According to Administrator A, one reason was to protect against competition

and “make sure that we don’t lose students to other schools that try to do this.” More importantly, Administrator A noted the institution desired to expand access to students who lived outside of the area in order to address low revenue streams caused by the state of enrollment in blended and face-to-face courses. By focusing on student flexibility and convenience, the institution would “develop programs that allow [students] to attend in the ways that meet their lifestyles and professional goals.” Motivation for adopting and implementing blended learning was driven by a business need and not by pedagogical advantages of blended learning as reported by administration.

Evidently, faculty had the same understanding for why the institution implemented blended learning. Faculty perceived the institution’s introduction of blended learning as a means to expand student access to learning, and to increase enrollment and revenue. Instructors A, B, G, and K addressed the goal of expanding student access. Instructor A spoke to blended learning as providing an opportunity to take coursework for those students who “wouldn’t necessarily have the opportunity” and Instructor K mentioned blended learning “was going to be more useful to, to people that had limited, ah mobility, limited resources.” With respect to increasing enrollment and revenue, Instructor A noted blended learning as being “a revenue generating avenue that the university picked up on.”

Summing up, it was apparent through participant responses that the pedagogical benefits and effectiveness of blended learning was not the reason the institution implemented blended learning. Not surprisingly, faculty responses were not focused on pedagogical possibilities of blended learning. While institutional goal alignment between administration and faculty is important, Moskal et al. (2013) called to attention the

missing component needed to sustain a blended learning initiative: mid-level organizational capacity required to prepare faculty, develop courses, manage the infrastructure, support online students and teachers, and carry out the myriad other functions that are needed to attain success. As evidence will show in this chapter, the case institution allocated limited resources toward the implementation and support of blended programs. Consequently, the institution had not yet realized a transformative blend model (Graham, 2006). As Graham (2006) explained, a transformative blend model allows for a radical transformation of pedagogy where learners actively construct knowledge through dynamic interactions. By the institution positioning blended learning as a business solution, the majority of the faculty participants developed a perception toward blended learning that was not related to or focused on teaching and learning and transformative pedagogy.

Knowledge of blended learning pedagogy. At the time the institution decided to implement blended learning, an understanding of blended learning was absent as Administrator A shared, "Nobody really knew about the word blended here." In fact, Administrator A reported the presence of confusion surrounding blended learning, "Um, at first it was just some confusion what [blended] actually is. And we had to work with faculty directly, and with management, to understand what it is." Moskal et al. (2013) found that "institutional alignment can be challenging to achieve because many administrators are not familiar with this mode of teaching and learning, having not experienced it during their own education." Conversations related to the definition or benefits of blended learning with faculty focused on student convenience and flexibility

and not on blended learning advantages from a pedagogical perspective. In this respect, faculty participants did not communicate an understanding of blended learning pedagogy.

Positioning of blended learning. According to faculty participants, the institution positioned blended learning as similar to the traditional face-to-face experience. Instructor C shared, "They [administration] think blend is like a classroom. So, it's just, you just take your regular course and, and it's blended. Well, it's really not." This response would suggest that there was a lack of understanding at some level of the institution of what blended learning is and how best to support faculty in the design, development, and instruction of blended learning courses. In fact, Instructor M was not even informed of the format of the course when hired to teach, "When I, uh, actually when I um, agreed to teach, I thought, I knew it was a classroom teaching, I didn't realize it was a blended course." This showed a lack of communication and training on the part of the institution to prepare and support a faculty member who was new to teaching. This also indicated a lack of institutional understanding or acknowledgement of the complexity of blended learning environments and prompted the question of why the institution adopted and implemented blended learning.

Website. The blended format was positioned to students on the institution's website as combining the best elements of classroom and online teaching. The blended format was represented as using the most current internet and communication technologies which support student and faculty collaboration and interaction, however, most faculty participants promoted collaboration and interaction in the face-to-face classroom, demonstrating a lack of knowledge on how this is accomplished in the online environment. While the description of blended design made the connection to the latest

research on cognitive learning and educational technologies, faculty did not use that language or show a level of understanding of teaching and learning through the use of educational technologies.

Information on the educational technology and innovation group was provided through another section of the institutional website describing the group's mission and services including blended programs. It was not apparent how faculty or students were informed of the existence of the website or how the website could be accessed from the institution's home page. The information on the website was assumed to be most beneficial for faculty and positioned blended learning as designed for busy professionals who wanted to attend on campus but required some flexibility. The website highlighted the combination of on campus class meetings and ongoing online student-to-student and student-to-faculty collaboration. While the website indicated a student experience including ongoing online collaboration, faculty practice did not consistently support that claim, revealing their undeveloped understanding of delivering blended instruction.

Perception. Each faculty member is a unique individual who brings with him or her biases based on attitudes, beliefs, experiences, and values. These biases form the basis of their perception toward blended learning and educational technology (Papanastasiou & Angeli, 2008; Tabata & Johnsrud, 2008; Teo et al., 2008; Wood et al., 2004). Consequently, faculty perception influences the application, or lack of blended learning pedagogy. This section explores the faculty perspective related to definitions and benefits of blended learning.

With regard to defining blended learning, Instructors C and F highlighted student flexibility. Instructor C noted applicability for certain student populations. From a

student cultural perspective, Instructor C noted that blended learning benefited female Muslims because, "she can't talk to a man, so her husband called me every week with her questions. So, she's definitely, is much suited for the blend course…because she can talk to anybody she wants." Instructor F described, "flexibility in terms of how [students] are going to receive [course] information" and in terms of format, "requires some in-person contact and some online contact, so you have to have online aspects and then in-person aspects." While Instructor F's definition of blended learning mentioned having both online and in-person contact and aspects, an explicit connection between blended learning advantages and student learning was absent. Instructor M's positive perception of blended learning was about flexibility afforded by blended learning environments. Instructor M enjoyed teaching a blended course and expressed, "I loved it more than I ever expected…I loved the face-to-face with the students, the opportunity to get to know them."

Another perception of faculty participants was the notion of blended students being less involved than those who attend class face-to-face. It seemed to be a negative view as Instructor C shared the blended student was "on his time and his own schedule and his own priorities a couple of weeks of the year and then you force him into a certain kind of second time management thing that makes him come to class to ask specific questions." This view of separation and isolation for the blended student suggested instructors were less engaged with blended students and not focused on facilitating student-to-student, student-to-content, and student-to-instructor interaction.

Blended learning benefits. To further understand the faculty's view of blended learning, this section explores faculty participants' perception of benefits to both students

and faculty. Faculty participants were asked about benefits of teaching blended courses and of having both face-to-face and online learning activities. Again, the majority of participants focused on the convenience and flexibility rather than on the pedagogical possibilities or advantages of blended learning.

Student convenience and flexibility. Instructors A, B, F, and H reported student benefits related to convenience such as saving travel time and flexibility in managing schedules. Instructor A perceived students who lived close to the University "to prefer the face-to-face, but because of their personal schedules…have to…travel one or two weeks during the month." Similarly, Instructor F perceived the benefit to be one of convenience and flexibility for students "who have more complicated schedules." A benefit of the convenience of managing workload over a week was noted by Instructor B. Instructor H perceived the benefit to students as "sometimes not to have to come into classroom every week."

Time on Task. Instructor G was asked about the benefits of having both the online environment and the face-to-face environment and having activities in both modalities. The response touched upon teaching and learning with respect to the student benefit of extended time on task with online discussions which require students "to think a little bit more poignantly than if you were just to have a class discussion where you just sort of speak without necessarily thinking through an answer." Similarly, Instructor K noted the benefit of blended learning in allowing for extended time on task which "gives the student time to really think…read the material, do the assignments and then…come into class, so they've had time to think about what we just did." Instructor H highlighted the advantage of blended learning for quantitative subjects "because if you want to go

through the calculations with someone, you could do it on a whiteboard…You could film it…You could embed the video in the online class." Instructor H found that some students "watch videos 10 times…because they can watch it and watch it and watch it until they get it, whereas in the classroom, you don't want to go over the same equation 10 times." Instructor H showcased thinking related to how technology in the blended learning environment can assist in student learning. However, Instructor H did not draw a connection to how teaching blended courses benefits faculty, "I don't know that I see any huge advantages over either the classroom or completely online." The responses illustrated above indicate three participants' recognition of pedagogical benefits of increased time for mastery, critical thinking, and reflection regardless of whether participants could articulate and make an explicit connection. While three participants reported extended time on task as being beneficial for students, they did not make the explicit connection between time on task and student achievement. The majority of faculty participants did not discuss pedagogy or show an understanding of teaching and learning theory.

Faculty convenience and flexibility. The benefit of saved travel time for faculty was noted by both Instructors B and C. What's more, blended learning was noted as convenient when faced with weather challenges as Instructor B shared, "it was a godsend that the blizzard came and we were able to move the class [online]. Instructor B recognized the benefit of blended learning in assisting with the managerial role of class time management and organizing schedules. Another convenience for faculty noted by Instructor G was related to having "a really nice written record of ideas that have come up, questions that have been posed, and so from an archival standpoint that is also a really

great benefit." Not only was blended learning noted as convenient for retrieving archived content, but also for allowing exposure to more course content. Instructor K perceived "the benefit to [blended learning] is that you can get more content. If you've got the right student group you can really pack the content in." The potential of blended learning to meet students at an individual knowledge and learning level was touched upon. Whereas, it was questionable whether increased content would serve the students in achieving the course goals and learning outcomes.

Faculty face-to-face preference. Faculty participants were comfortable with what they knew based on their own learning and teaching experiences and face-to-face teaching and learning played an important role. Blended learning was reported to have the benefit of face-to-face communications and interactions with students. Instructor A's highly technical background and teaching experience did not seem to assist in fostering a comfort level with the blended learning environment. Instructor A shared, "being the more old fashioned, I still prefer the face-to-face interaction." One would assume then Instructor A's perception of blended learning was shaped by other factors. Instructor F emphasized the benefit of having face-to-face communication, "So, I think it is nice to have the face-to-face communication, to actually meet with the students and be able to have that interaction, that in-person interaction."

Conversely, Instructor G focused on the lack of face-to-face interactions the more online aspects are present, "What I think does not necessarily come across are all of the wonderful conversations that happen in the hallway, that happen informally outside of the class structure…when some of the rich conversations happen."

Faculty workload. Negatively, blended learning was reported as a burden to faculty with regard to increased workload. Instructors A, C, D, and K expressed a lack of faculty benefits provided by blended learning. As Instructor A noted, "there probably aren't any benefits…it actually ends up being more work" and Instructor K shared "it's a little more difficult and I think it takes more preparation." While Instructor C acknowledged a benefit of less travel time, enthusiasm was lacking for increased time with blended students, "I mean, personally I spend more time, ah, giving feedback to blended students and reading what they do." Instructor C's point was the increased workload for faculty dealing with blended students and not how increased engagement benefits student learning. There was an absence in the discussion with the majority of faculty participants about how students can engage and be assessed in the blended environment through the alignment of assignments and integration of both learning modalities. Instructor D did not find any blended learning benefits for faculty, but did recognize the impact being recorded had on lecturing, "I do think there is actually a value in me knowing I'm being recorded. When I think about when I taught without being recorded, it somehow felt less formal and less polished. I feel like I take it more seriously when I have that camera reminding me that I'm getting paid to educate students." This is a telling response and prompted my thinking around the influence of oversight and accountability. The participant extended more effort knowing that the class was recorded and could therefore be viewed and critiqued by administration and students at any time.

Institutional benefits. Instructor D's response to the question of benefits provided through blended learning confirmed the focus on student convenience and flexibility in

order to meet the institutional goal for blended learning, "Without blended, either my university would lose out on them or they are just going to lose out completely. A key virtue of blended is extended access to more students."

In summary. Benefits of blended learning in providing faculty with increased opportunities for engagement with, and assessment of, students in the online environment did not get mentioned. Accordingly, faculty participants' definitions and views of blended learning are not necessarily centered on a similar understanding related to teaching and learning. While the majority of faculty participants recognized blended learning as convenient for and providing flexibility to students, the conversation rarely touched upon the pedagogical possibilities and benefits of blended learning as related to effective instructional practices or student learning and assessment. When a few faculty participant responses related to the pedagogical role, there was a lack of understanding in explicitly making the connection between pedagogical strategy and student learning. Not surprisingly, the majority of adjunct faculty come from industry and are not professionally trained educators. Indeed, even some full-time faculty outside the field of education lack the knowledge of, and strategies for, effective teaching and learning practices.

Application of blended learning pedagogy. Perceptions toward online learning environments and technology influenced the way faculty approached designing, developing, and instructing blended learning courses. An additional factor impacting how faculty experience blended learning was the blended learning technical environment and format within which they operated.

Dual registration. The institution developed a business model for blended learning due to a lower revenue stream caused by the state of enrollment in blended and face-to-face courses. The goals outlined were to address the concern of losing students to other schools invested in blended learning and to expand the institution's reach to accommodate students who lived further out from campus. Based on these business needs, the institution decided to combine the traditional face-to-face course section along with the blended course section. From an institutional perspective, the dual registration model saved money in faculty stipends and available classroom space. Each section within the dual registration model utilized the learning management system (LMS) and had access to the same support; therefore, the two sections were treated as one blended course from an institutional perspective of assigning one faculty member. Administrator A perceived student flexibility driving the "dual registration courses'…model of the future" where students could attend in person if able or at a distance if needed. From Administrator A's perspective, the distinction between face-to-face and blended learning will go away: "I don't see any difference, to tell you the truth, between blended and on campus anymore. It's the same. It's about flexibility." Administrator A believed that all learning in the future would become blended as there has not been a universally accepted definition of blended. In consideration of whether the terminology of "blended" will disappear or not, the concept of an integrated and cohesive learning experience for students in technology-supported learning environments is still of upmost importance for administration and faculty.

From a pedagogical, social, managerial, and technological role perspective, the institution expected faculty to instruct and manage a face-to-face course section along

with a blended course section where the students of each had different expectations. Evidently, the institution lacked a cohesive and robust infrastructure to fully support these roles required within the blended learning environment. Instructor A shared the faculty perspective of the dual registration model:

> They've tried to unify blended and face-to-face to the same format, whereas before…here is a section that is on campus only and here is a section that is blended only...even if the enrollment is down in one or the other…they would actually meet together and still be able to offer the class.

When asked how the two sections were treated from the perspective of combined student engagement and experience, Administrator A's response distinguished differing expectations between faculty and students:

> It's interesting because despite that…faculty most often treat it as one course, students because they have different attendance environments, basically see things differently. But, I think it's to the benefit of everybody.

Considering Administrator A's response, it would seem as though administration's understanding was that faculty treated the two separate sections within the dual registration model as one course and the students viewed them as separate. Yet, the evidence revealed in this study showed there were differing viewpoints and experiences among faculty participants in how they managed the face-to-face and blended sections within the dual registration model.

Blended model. When considering blended learning definitions and models, the institution referred to the Sloan-C blended learning definition, which focused on defining online and blended courses by the percentage of online versus face-to-face time.

However, the institution did not buy into it the Sloan-C definition. Instead, the institution developed a blended model that acknowledged the need for flexibility in blended formats in meeting the needs of different blended programs. All blended courses operated within a 14 week semester, while online courses ran for seven weeks. The institution worked to maintain consistency for the student experience within academic programs. For blended courses where there was an online equivalent, the institution leveraged the online course content. Blended learning support staff worked closely with faculty to convert the online content delivered in seven weeks to blended content delivered in 14 weeks. While online content was leveraged, blended faculty could request course modifications. Therefore, blended programs were more conducive for faculty to exercise flexibility versus online programs.

From a pedagogical perspective, Administrator A explained that the ownership of determining the blended learning format whether within or outside of the dual registration system resided with the academic departments. Each academic department defined the blended format based on what was appropriate for the discipline as well as the student demographic. By supporting program flexibility in designing the blended format or model, the institution attempted to honor the faculty role in determining the best academic or pedagogical approach. To further demonstrate the need for flexibility within academic programs, Administrator A shared that one program consideration may be designing for working professionals and another program consideration may be to meet the needs of "foreign students" who prefer to come on campus but "might not understand English very well in the beginning. So, having recorded lectures, for example, has completely different meaning." An interesting analogy shared by Administrator A was,

"It's really like…medicine. Different drugs get different effects and maybe this is the same thing as technology, it can have different effects on different types of students and different classes." As Administrator A acknowledged, "Faculty is in the driver's seat always and we are just trying to help."

At the time of the study, the majority of faculty participants were teaching in a blended format that required students to come on-campus for class once a month or four times within a 14 week semester. During the weeks the blended students were online, they could participate virtually through web conferencing technology or view recorded class sessions online at a time convenient for them. The institution had certain classrooms equipped with technology that captured the instructor as well as what was displayed on the projection screens. Both Administrator A and faculty participants noted that blended students were invited and encouraged to attend as many class dates in-person as they were able.

Instructor B described a previous blended format where there was alternating weeks of face-to-face class time and fully online. The online week began as including synchronous sessions through web conferencing technology; however, based on Instructor B's feedback the institution supported the elimination of synchronous sessions where the online week became asynchronous. Instructor B's motivation for changing the blended format was a lack of instructional strategies to manage cohort student disruptions. Instructor B was frustrated with the students' personal jokes and chats during the synchronous sessions.

Another blended format was described by Administrator A: "Instead of students being remote…we had faculty coming into campus once in a while, because the program

was built around getting the best [faculty] possible." In essence, this format utilized faculty who would come to campus in the beginning, at the end of, and sometimes during the semester.

While Instructor F "was surprised at the variety of formats that were put forth as a blended course" over time, it did show a willingness on the part of the institution to adapt and change.

Guiding frameworks. During the second interview with Administrator A, the question was asked whether the institution used any frameworks that guided application and evaluation of blended learning pedagogy. Administrator A answered, "No, we don't dictate to faculty how to teach. We are essentially trying to support them versus dictating…what exactly the format should be." An established set of expectations or standards for faculty and blended courses was not apparent. Conversely, online learning within the institution had more structured courses with less flexibility for faculty. Administrator A indicated that a "good measurement system is something that is a goal, that would be nice to have, but very difficult to achieve."

With regard to student learning assessment, Administrator A indicated that the institution wanted to explore different ways of assessing student learning. Administrator A's thinking of assessment was related to "having some hands on activity and developing a system that would be able to measure the students' responses against some dynamic and mostly defined answers." While Administrator A's response spoke to potential automated assignment grading, it identified an institutional opportunity for education around student learning outcomes assessment as a means for the institution to determine whether students are achieving the course learning outcomes, and, therefore, meeting the

program's learning outcomes. Administrator A expressed an opinion that learning would expand beyond the structured learning space and would impact the assessment of student learning. The institution reportedly had work to do in terms of implementing a student learning assessment infrastructure in order to measure the achievement of student learning outcomes. As students are able to access content and learning environments in more varying and mobile ways, the conversation and focus on student learning assessment becomes more urgent and presents an area of opportunity for the institution.

Lessons learned. Findings revealed that faculty participants approached course improvement through a process of trial and error. Faculty participants shared some lessons learned but mostly expressed areas for desired experimentation and improvement. Instructor D acknowledged that there were some things the participant did not have an answer for and did something "differently every time I teach the course which is probably dumb." Instructor B shared excitement for the "contribution that I'm making to that particular course…even as flummoxing around…this semester is going to be better than it was last year" and Instructor H said "We're constantly tweaking stuff." While most faculty participants seemed to work on course improvement on their own, Instructor D did note collaboration with others for updating course content, however, made personal decisions related to teaching. The challenge Instructor D faced was, "How are you going to engage the students more effectively and engaging in terms of having them learn about, care about, master the material?" There was recognition that the challenge was not necessarily related to technology but that technology could probably be used more effectively. In this respect, Instructor E learned strategies for increasing student engagement and ownership for learning and began with setting clear expectations for the

course experience upfront. Instructor E engaged students throughout the course and communicated to them that "we're gonna learn as we go along and your input's critical." With setting student expectations of working together with the instructor and each other to learn and manage challenges during the course, the students "felt some ownership in terms of you know owning the learning process and being able to kind of shape what they liked about it and what needed improvement" and, as Instructor E believed, "appreciated that someone actually asked them."

Repeatedly, student engagement surfaced as an area of desired improvement. Instructor G reflected on using technology more pointedly in building community through strategies such as "face-to-face chat, video, smaller groups, more intimate settings where you have the chance to have the best parts about the non-technological part of the class traditionally," and Instructor B hoped to see more interaction with students during the online weeks but "got very little" because there were no strategies employed to foster interaction, and that was "something I have to rethink." Instructor F learned to use spontaneous discussion and student presentations in the classroom and prolonged discussion online for the "ability to think about what they are going to say in the discussion." Instructor E experienced increased engagement through grading activities, "You just grade them….and the grading helps keeps them in line in terms of what is appropriate for the amount of participation." Instructor B did not apply specific strategies for engagement but expected increased interaction. Interview responses revealed how faculty need knowledge of effective practices to foster student interaction and engagement.

Other areas faculty participants desired to explore for improvement included consistently laying out work within the course (Instructor B), rethinking the distribution of activities in the face-to-face and online environments (Instructor F), using video cases to cover more content (Instructor C), and visual learning techniques for engagement (Instructor E).

Based on responses from faculty participants, it would seem faculty and administration would benefit from collaboration and shared learning. Peer collaboration and sharing could provide ideas and options for course improvement. While student feedback was a data source recommended for course improvement, faculty did not point to or focus on student learning assessment data as a driver for course improvement. While Instructor H spoke of how educators naturally reflect upon their classroom practices, course improvement efforts would benefit from a formal learning outcomes assessment practice (Porter et al., 2014).

With regard to technology use, Instructor M acknowledged that with development as an educator, increased use of technology will occur. Negatively, Instructor J did not plan on improving the blended course because of the time commitment required when using technology, "It just adds more time you need to invest into…the more you use technology, the more time you have to spend." This response indicated a restricted and limited approach to blended learning favoring the face-to-face element.

Pedagogical role. Berge's (1995) pedagogical role encapsulates the duties of educational facilitator. Those duties include ensuring the educational objectives are achieved through an intentional educational approach. Faculty take on pedagogical roles of instructional designer, facilitator, and teacher. They do so by asking questions,

providing feedback, summarizing student work, providing instructions, presenting, information, and giving advice (Liu et al., 2005). In the application of blended learning pedagogy, faculty attend to learning activities in both the face-to-face and online environments. Faculty apply pedagogical decisions during the design, development, and instruction of blended courses. How faculty perceive blended learning along with the utility and usefulness of educational technology determines the pedagogical approaches toward development of course material, design of course structure, and instruction. At the same time, faculty must determine appropriate assignments and assessments that prepare students for mastery of content and measure course and program learning outcomes. Certainly, student learning outcomes should drive selection of content as well as design and development of formative and summative assessments. Findings of this study indicate that in the absence of knowledge of blended learning pedagogy and applications of technology in support of blended learning pedagogy faculty revert to what they are familiar and comfortable with. One example is faculty's comfort level with the face-to-face environment for engaging and interacting with students and perceived assessment of student learning. Findings also revealed differing perceptions among faculty for the appropriateness of blended learning for certain courses. Another finding highlighted the idea that faculty desired face-to-face and blended students to achieve the same course objectives, but were challenged in balancing the synchronization of both the face-to-face and blended course sections. Faculty participants emphasized planning and preparation when considering the design, development, and instruction of blended courses. Assessment of student learning was absent from many of the discussions with faculty participants, and inconsistency in understanding and use of terminology was

apparent. While faculty lacked the knowledge and skills to take advantage of the benefits of blended learning, a recognition that more was possible and should be done was mentioned.

Comfort with face-to-face environment. Many of the faculty participants expressed comfort with and preference for face-to-face environments. Regardless of teaching experience and a high-level of comfort with technology, faculty participants focused on and engaged more in the face-to-face environment. Instructor A perceived face-to-face time as required for a high level of student engagement: "the very first class I tell them…in order for the class to be a lot more engaged, we need to add face-to-face time," and the instructor expressed, "being old fashioned, I would have…been happy to stick with just the face." Instructor D encouraged blended students to attend face-to-face as much as they could because "the department wants me to very strongly urge them to attend each of those plenary sessions." A pedagogical decision was made by Instructor C to not participate in online discussions because the perception was "when you do that, you become the guru and everybody stops and answers to you. And that's not the purpose."

Instructor J experienced a challenge in helping students learn who were not physically present in class. Instructor J believed certain subjects demanded face-to-face interaction such as "software engineering" because students "end up sending their entire code over to you to help debug. And that's not really them learning because you just send them back a static image or code back to them and they try to figure it out on their own." While live face-to-face time was preferred, Instructor J noted the helpfulness of "streaming it live,

and watching them actually write the code" and not teach asynchronously through the LMS.

Blended learning supporting pedagogy. In considering how well the blended learning format supports the pedagogical role, faculty shared their lived experiences. Faculty believed that the blended format worked best for some courses over others as well as for some students over others. When asked during the second interview which courses work best in the blended learning format, Instructor A stated, "Classes that don't have as much lab time, yeah. Lab time you really need a face-to-face format." Instructor D acknowledged the benefit of hands-on lab work while in class and how the utilization of technology can provide face time for blended students at a distance. While Instructor D's classes were recorded for the blended students, demonstrations and lab support versus sole lecturing was more beneficial to the students. Instructor D thought it was "kind of funny" that students got more out of the material from "working more or less hands on with them…and that sort of rocked my world a little bit in terms of the efficacy of these teaching presentation technologies." So while both Instructor A and Instructor D agreed on the importance of hands-on lab time with students, Instructor A preferred to have the student in the physical classroom and Instructor D saw the benefit of utilizing the synchronous and recording technology to reach the same objective.

Another beneficial application for blended learning was highlighted by Instructor B. Faculty had an opportunity in their role to assist students in preparing for organizational training online environments. A motivation for Instructor B was students understanding that "you pick up your degree…you can't stop learning" and that most likely students will "spend some time online somewhere." As many companies provide

online training, Instructor B believed blended learning helped students become comfortable in online environments and therefore would not "get themselves in an embarrassing situation and…lose a job."

Section synchronization. Faculty expressed a desire for the face-to-face and blended students to share in a similar experience and achieve the same learning outcomes. Instructor F wanted "to be sure the same information was conveyed to the students" and Instructor G wanted blended students to have "the same as the traditional format of having the same learning objectives." Instructor K expanded on the notion of similar experiences for blended and face-to-face students: "The other side of that is you have to be very careful and not have it become a two-tier educational system. You can't have the Cadillac education being in class and the lower level education being just online."

Instructor A noted the challenge in synchronizing the pedagogical experiences of the two student populations as "a learning curve, to try to actually synchronize the material with somebody that you see once a week, versus somebody that you see once a month, and keep them on the same schedule." While Instructor C aligned the content and lectures between the two student groups from a timing perspective, the participant viewed the two sections as divergent. By treating the two student groups differently, Instructor C perceived that it was "made a lot better" because the students "don't interact." Instructor C seemed to lack pedagogical strategies to motivate and engage students in the online environment. Reportedly, "some students didn't do the assignments" and of those who engaged in discussions online "about 75% of the posts are done in the last two days." Absolutely, the dual registration model added on a layer of complexity for faculty

participants and presented a challenge for some in managing the pedagogical, social, managerial, and technological roles.

Planning and preparation. During the interviews, faculty participants shared thoughts and experiences regarding blended learning course planning, preparation and support. Faculty participants recognized the complexity of blended learning and the need for upfront planning and preparation. Instructors A, B, C and E spoke of the importance of upfront planning and preparation. Instructor B confirmed the need to "think through the entire course upfront" even if faculty have been "teaching kind of 15 years" in order to "really think, what I wanted the student to learn. Not what I wanted to teach." Similarly, Instructor C explained that faculty "cannot serially work a blended course."

While upfront planning and preparation for blended courses is a necessity, the experience can still be challenging without institutional support. Instructor E viewed institutional support as "a really big gap." The participant experienced being "left completely to my own devices" and would have appreciated learning what other instructors did, "I mean I'd love that. I would love to have seen that. Cuz then that would've given me some kind of gauge line around ok well what does everybody else do? Like am I doing it right? I don't know." Instructor E's overall perspective of the institution's coaching and training support was poor regardless of whether faculty teach face-to-face, online, or blended. In fact, Instructor E expressed serious concern over the lack of institutional oversight and that "there's no peer review and I asked for it."

Assessment of student learning. Findings revealed the absence of a formalized student learning outcomes assessment plan and infrastructure. Faculty participants lacked an understanding of learning outcomes assessment beyond assignment grading.

Faculty did not use language that would show an understanding of the connection between formative learning pathways and summative assessments. A review of participants' course syllabi revealed inconsistency in format, language, terminology, and presentation of course goals, objectives, and learning outcomes. Therefore, it can be assumed that the institution lacked standard definitions and expectations in this area. Additionally, inconsistency in the use of Bloom's taxonomy demonstrated a lack of understanding for meaningful, measurable outcomes and directly aligned, authentic assessments. Moreover, inconsistency was present within academic departments. Instructor F's syllabus did not contain any information pertaining to *course goals, objectives,* or *learning outcomes*. Instructors G, H, and K used terminology of *course objectives.* Instructor M used *learning objectives* while Instructor D used *objectives*. Instructor A had both *course objectives* and *learning outcomes*. Instructor B had *course goals, objectives*, and *course level learning outcomes*. Instructor C had *course objectives* and *learning goals*. Instructor E had *course learning objectives*.

When thinking about the assessment of student learning, faculty mentioned ways of reaching out to blended learning students to gauge understanding. Some faculty believed assessment of student learning could be determined by face-to-face time with the students because as Instructor C pointed out, "you get a sense either from their questions or body language of what they don't understand or what they think they understand but they really don't." When asked how Instructor A confirmed student understanding and learning, email communication surfaced as a means to connect and determine how students were doing. Instructor A explained that when blended students have not been heard from, email works for "poking to see…how they're doing and…if

they have any problems with the class or things." As Instructor A wanted the blended students to keep "on par with what…the face-to-face students are doing", and therefore emails students to "try to keep on top of them with respect to making sure they're staying engaged."

Instructor C noted student performance on assignments as another means to gauge student learning. As assignments were due about every two weeks, the participant felt as though there was plenty of time and opportunity to know if students were learning. Instructor C believed face-to-face time with students allowed for better assessment because faculty are "much more close to them" when going over homework and assignments in class. The participants believed there were "more forced deliverables in person when you do the classroom stuff."

Again, the understanding of how student learning could be assessed through alignment between assessments and learning outcomes was absent from the conversations. As a result, many of the faculty participants expressed a comfort with the face-to-face environment especially for assessing student understanding, as this environment was familiar and comfortable to them. Faculty did not speak about any conversations taking place about teaching and learning and assessment among them and with administration.

Pedagogical possibilities. While some faculty initially saw the benefit of blended learning to be one of convenience and flexibility, there was recognition of pedagogical possibilities once faculty gained experience with blended learning. Instructor D recognized pedagogical opportunities afforded by the blended environment, but acknowledged not being able to take advantage of such. During the interview, Instructor

D reflected on blended learning as "an interesting vehicle for variations on teaching that would be enabled through the technology," and that the current use of technology did not represent "a very expansive vision of blended instruction." Some faculty had an idea of the pedagogical possibilities but were lacking the means to develop in that area. As evidenced by Instructor H's response, "that's where I started with blended learning, as a necessity….But of course, once you start doing it, you see the possibilities."

Social role. Berge's (1995) social role encases the responsibility of creating a safe and social environment for students. Community is fostered through communication and interaction between faculty and students and among students within learning and pedagogical contexts. Faculty make pedagogical decisions in consideration of social roles that foster a friendly and nurturing environment. From a social role perspective, faculty personalize communication, incorporate humor, and display empathy (Kaleta et al., 2007).

From an administrative perspective, the institution viewed faculty community and engagement as important. Administrator A emphasized the goal of "trying to make sure the faculty is motivated and engaged, and has everything that they need to teach. And we leave them some room to do whatever they do the best." Administrator A acknowledged an understanding that faculty would not be motivated if told how to teach. And if faculty are not motivated, students would be impacted as faculty "can motivate students directly"; therefore, the institution needs to "make sure the faculty is excited about what we give them to use."

The idea that a social space can be created in an online environment was lost among the majority of faculty participants. Again, the majority of faculty participants

expressed comfort in and familiarity with face-to-face environments. Repeatedly, faculty participants spoke about the advantage of blended environments over online for creating community and getting to know students because of the face-to-face element. Perceptions of blended learning and technology drive pedagogical decisions pertaining to social spaces and interactions. Blended learning provides an opportunity for students to collaborate and learn online through social interactions. How faculty apply pedagogy in social contexts is influenced by perceptions of blended learning and technology (Jaffee, 2003). Findings of this study showed the social role minimized in the online environment. Faculty perceived the online environment as challenging to create community and did not expend much effort online. Most faculty participants felt disconnected from blended students and perceived the online space to be an obstacle in getting to know their students.

Presence. Findings revealed faculty participants perceived themselves as models for professionalism while providing positive encouragement through discussion and support of group work. Instructors B, J, K, and M stressed the importance of professionalism and faculty presence. Instructor M noted to "be there on time…be there for the student…and reach out to them, uh, a little bit more." Instructor J agreed to "be attentive to when [students] ask questions in the chat." In an online environment, faculty must be clear, professional, and nurturing in their communications with students. Instructor K described the need for faculty to act professionally and be positive in communications with students because "negativity can really crush that learning environment and it only needs to happen once." Instructor B expressed a need for

faculty to show caring and a responsiveness, but also seemed to put ownership on students when describing instructor presence:

> It looks like a student asking me a question or saying this is what I am thinking about doing for my research paper. What do you think? We have three or four exchanges and then she or he will come back with an I got it and then you see the results of that discussion showing up in the paper.

Similarly, Instructor C expected the students to initiate engagement, and when they did not it was viewed as the "blend challenge."

Engagement. A repeated theme in the findings was the perceived and experienced lack of engagement of blended students which faculty believed influenced the social and professional relationships they had with them. Students were reported as not asking questions while connected through synchronous conferencing during the live class or through asynchronous means outside of the live class time. Within the dual registration model, faculty found it challenging to keep the blended students engaged. Negatively, some faculty participants perceived blended students to be on their own and did not take responsibility for fostering and facilitating engagement and community. Instructor A found it a challenge to keep blended students engaged because as the participant explained, "you probably will not know their name, because you'll only see them four times in the semester." However, the participant's instructional approach prioritized the face-to-face modality. When aspects of the course or instructional strategy did not work well for the blended students, Instructor A accepted that as simply the experience for the blended students. With respect to blended student engagement, Instructor A did not experience much engagement from the blended students. The

participant admitted a comfort level with face-to-face environments and stressed that some students were quiet and less engaged than others. It was apparent during the class observation that Instructor A was comfortable in the physical classroom. There was a relaxed atmosphere where the participant recognized some students from previous classes and joked with the class. The participant periodically asked the class if there were any questions and students responded. The students seemed to be paying attention, smiling, and engaging with the participant. The participant encouraged students to provide feedback for the continuous improvement of the course. The participant physically moved around the classroom and interacted with the students. Not surprisingly, Instructor A viewed the faculty experience in the blended and face-to-face course as equivalent because the instructional strategies were "almost equivalent." The participant's course syllabus mentioned the availability of student graded and ungraded discussion forums where student engagement would take place. Additionally, the course syllabus provided a netiquette guide published by the distance learning group to guide students in online interactions. When asked how Instructor A decided upon face-to-face and online activities, the participant explained that there is not "a separate effort or anything that's aimed to the delivery to [blended students]." Instructor A and C described the blended student's options as participating through web conferencing live or viewing the recorded lecture at a different time. Instructor C described the percentage of interaction in the face-to-face classroom at about 90%. Online engagement was explained as "some interaction that goes vis-à-vis emails going back and forth, vis-à-vis posting on the website…it's not very interactive…I never get any questions from them actually." When asked if the participant could change that and do more online, the

response was, “No, I don’t, ah, I can’t. I mean, yeah. There is a synchronous aspect of the class…but I never exploit it.” Instructors D, G, and K expressed the difficulty in engaging the blended and face-to-face students equally. Instructor D perceived a contributing factor to be “the temperament of the student” as some students participate and some do not. Instructor D confirmed the approach of attending to the face-to-face students first, “I usually try to get the in-person students engaged first and then I will try to get the students who are online and that’s like a triage type thing. It’s often difficult to get the online students to speak up at all.” Instructor G approached the engagement challenge by trying to “extend the conversation…make connections of calling out students personally” and “having to be quite directed in directing the conversation.”

Pedagogical strategies directed toward blended students through engagement in online social spaces seemed to be limited. Some faculty participants either did not have an understanding of online engagement strategies or lacked motivation to put forth effort required in blended learning environments. On the contrary, Instructor B believed in the learning power of student interaction, “I think there’s a huge advantage in students teaching other students.” The strategy of working in pairs was implemented in the online environment of the blended course.

Community. As has been noted previously, faculty participants perceived face-to-face environments to be more conducive to creating and building community. Therefore, it was not surprising for faculty participants such as Instructor C to describe blended learning to be more conducive to building community than fully online environments because “you get to talk, you get to see [students].” Similarly, Instructor M liked the blended format for the opportunity to be in front of and get to know students. The

participant noted the "social element" as the benefit provided by the face-to-face environment in blended learning. Instructors E and F experienced students desiring interaction and socialization online. Both participants showed responsiveness to students, enthusiasm for student learning, and embraced the use of educational technology. Instructor E having come from the online environment to blended felt responsible to acclimate the students "who were used to taking face-to-face classes" to online environments. Instructor E incorporated synchronous interactions into blended and online courses to "see students and connect with them and, um, and talk to them." Instructor F's experience was positive with regard to having students work in groups inside and outside of the classroom in order to increase interaction. The participant was "very surprised" that even online students "did interact a lot" and arranged on chat boards to meet up and "had that much kind of socialization."

Although some faculty experienced community building online in blended learning, the majority of faculty participants perceived or experienced the lack of face-to-face time to be a challenge for building community. Instructors B, C, D, G, H, and J found it a challenge to create community and engage students on a social level in the online environment. The participant responses painted an impersonal view and approach toward the blended students. Instructor C shared that "it's hard to create any kind of social environment online, because… [students] don't care about the guy next to them." This assumption showcased a negative view of blended and online students. Instructor D perceived blended students as "disembodied chat messages" and the experience with them as having "a very different tempo and very different feel." Instructor G expressed a "love" for engaging with students but felt "a much bigger gap in just knowing my

students" which "put me at a disadvantage." Instructor G was challenged in knowing how to engage and interact with students who were quieter or "darker on the screen." Some faculty participants viewed blended students to be on their own and the online environment in blended courses as outside of their focus and responsibility. As Instructor H noted, "half the time, you don't see what they're doing on the blended side, because it doesn't involve me." And Instructor J felt like a help desk and "disconnected" from the student. A lack of faculty ownership was demonstrated through Instructor C's sharing of the blended student's experience, "it's sad…it's a very different experience…the week they're in class, whereas the weeks they're not."

As Instructor G reflected on cultivating community in future blended courses, the participant contemplated mandating "two one-on-one email chat conversations with each student, either Skype or if I were physically in the same place as them, ideally in person."

Instructional practices. The instructional practices that faculty participants exhibited in the classroom and online represented what they have learned through experience and what they were experimenting with. During classroom observations, faculty participants initiated student introductions as a means for engagement and used humor in an effort to build community. Instructor D showed a dry sense of humor while reviewing course expectations and took time out for student introductions. Instructor B engaged students with humor and interacted by walking around. Instructor B's students, being part of a cohort, had established relationships and easy rapport with one another. While Instructor B felt building community online did not work as well as face-to-face, the participant attempted to do so through the posting of student biographical information in order to foster connections and community. Then, the participant made an effort to

discuss student backgrounds in the classroom from the online biographical information students included. Instructor C paired students up in the classroom to exchange personal information and share with the class. The participant expressed that it is hard for students to interact if they did not know each other. In the classroom, Instructor C responded to student questions in the classroom but did not solicit them. While Instructor B did not develop or implement strategies for proactively engaging blended students during their online weeks, the participant acknowledged that is something to rethink. Further, the participant reflected on the perspective of administration, "But I'm guessing that the [administration]…want their students to experience a relationship with their instructors. They don't want them to not know who their instructors are." Instructor B was a participant that showed a dichotomy in perception between face-to-face and online, but recognized on some level what could and should be done by faculty online. This recognition did not necessarily translate into sustained and consistent effort.

Student choice was something Instructor E found to increase student engagement and ownership of learning. Instructor E provided choice for means of communicating and found students wanting to connect with one another outside of the LMS using other technological tools. Instructor E explored and was comfortable with synchronous technologies that would allow document sharing and video and audio exchange. Instructor E shared, "I want students to choose for themselves. Right? So, I like a lot of exploration and self-empowerment in my classes…I always see myself as the steward." The participant's approach was to involve the students in problem-solving when challenges and issues arose such as communication. Therefore, students were

empowered to participate in making decisions such as selecting how they communicated with others.

Online discussion was used by some faculty participants as a method of online engagement. Instructor K found that providing a discussion space online for students to chat among themselves prompted students to be more open with one another. Other faculty such as Instructor B excluded graded online discussions because of the increased faculty workload; however, that instructor provided informal discussion spaces for students. The course syllabus included discussion expectations which were not aligned to graded assignments. Alternately, Instructor B paired students to work together as the potential benefit of students teaching students was recognized.

Summing up, faculty spoke in general terms of the benefit of student interaction, but the explicit understanding and connection to teaching and learning principles was absent. When discussing faculty and student communication and interaction in a blended learning environment compared to a fully face-to-face or fully online environment, most participants experienced an easier time connecting personally and socially with students in environments with a face-to-face element. Faculty participants recognized a need to be more intentional in connecting with students when in an online environment as well as focusing on being positive, nurturing, and encouraging. Some faculty confirmed their lack of focus and attention online and with the blended students. Technology issues were sometimes viewed as a barrier issue in achieving positive connections. Faculty participants' perceptions and experience varied based on their comfort level with online environments and technology as a means to connect with students virtually. Findings indicate faculty would benefit from an opportunity to develop instructional strategies for

fostering engagement and building community online. The lack of knowledge and experience made it easier for faculty to revert to a face-to-face focus, as it was what they knew and were comfortable with.

Managerial role. Berge's (1995) managerial role contains agenda setting and managing interactions. Blended learning environments necessitate balancing organization of both online and face-to-face environments (Kaleta et al., 2007). As I have noted, faculty perception of blended learning and technology influences pedagogical strategies which in turn determine the effort faculty put forth in managing both the face-to-face and online environments. If faculty are not motivated and do not perceive the online environment as important, effort in developing and managing the online course environment may be minimal. Findings show faculty utilize the online environment mostly for posting of course information and collection of assignments.

Faculty participants varied in their perception of whether the managerial role within blended learning environments differed or not in comparison to the face-to-face or fully online environments. When considering a blended learning environment versus a face-to-face environment, Instructors A, D, F, H, and K did not perceive faculty roles as fundamentally different. Instructor A commented on students having the same deliverables, and therefore perceived the role to be "pretty much the same," and Instructor D perceived the roles as "not very different" because "students are coming to you to learn and you have to give a judgment of them at the end of the semester as to what grade they get. That does not feel to me much different between blended and on campus."

Instructor H shared, “you manage a blended course in exactly the same way as you manage a classroom course.”

Conversely, Instructors B, C, and G perceived a difference in their role in a blended learning environment versus a face-to-face environment. Instructor B saw the two environments as “very definitely different.” Instructor C described the difference in terms of coaching in the blended environment and more teacher-centered in the face-to-face classroom. Instructor G perceived the difference to be related to managing interactions online as “a little bit trickier.”

When faculty participants considered how blended learning and online compared to one another, Instructors B, C, D, and M perceived differences. Instructor B believed face-to-face interaction in blended learning prompted a different connection in how faculty interacted with students because when fully online that participant never gets to meet the students. Instructor C perceived the faculty role in the online environment to be that of a paper corrector and in the blended environment perceived the faculty role to be more pronounced in terms of teaching: “blended is way better, because you get see ‘em, uh, you tend to have smaller class sizes than, than you do online…online I’m just a paper corrector.” Instructor D experienced the faculty role very differently in a blended versus online environment. Factors were explained as “mechanics are different. I don’t know if I saw practically any of my online course students for whom I was facilitating, whereas if you are doing blended or in person you see them all the time.” Additionally, Instructor D highlighted the condensed nature of the seven week online term and intensity of timing in “adjusting the same content to mean the same thing and those different delivery formats.” Instructor M acknowledged, “both of them have pros and cons….workload on the

professor, in terms of delivering and grading and managing expectations in a technical course…is significantly more than the workload on the professor in the online course." The institution's online structure provide a lead faculty member overseeing the course and multiple adjunct faculty acting as facilitators. Online courses were more standardized with additional instructional resources.

Instructors E, H and J perceived more similarities than differences between blended and online environments. Instructor E experienced the role being impacted by increased communication in the online course due to timing. Instructor H perceived the role as "a hybrid role" because when online the faculty is "more of a facilitator" and that is the case in blended and fully online courses. Instructor J did not see differences but noted, "it mostly comes back down to, you can't judge how an online student's doing over a computer screen." Further, Instructor J shared, "there shouldn't be any difference at all…actually even implying there should be differences means that it's inequality in education." Instructor J perceived the student experiences to be the same because of the live streaming and recordings. The participant did not alter the course to fit the blended environment: "I kept to the original face-to-face and I didn't actually alter anything….it's just a different medium to teach." While Instructor J preferred face-to-face, the importance and use of technology were acknowledged. However, the participant seemed to minimally use the technology available.

Synchronization. Faculty participants discussed concern over synchronization of blended and face-to-face students and managing expectations in the dual registration model. One of the benefits of having both student groups in the first class meeting was to set clear expectations. However, Instructors A, B, C, and D each set expectations

differently during the first in-class meeting. While Instructor A reviewed expectations for blended and face-to-face students, the course syllabus did not explicitly explain the blended format. Conversely, Instructors B and D's syllabi did clearly note the delivery mode of hybrid: classroom and online blend. Faculty reported a greater time commitment when the course included an online component. For example, Instructor B worked with a cohort group and had not "learned the balance from classroom to, you know, that [blended] experience" and noted the increased time commitment.

From a managerial role perspective, dual registration added an additional layer of complexity. Instructors A, B, D, and M experienced challenges in balancing face-to-face and online environments. While Instructor A believed the faculty role to be similar between a face-to-face and blended environment, the participant experienced more difficulty in managing the balance of two student populations in the dual registration model. This reportedly burdened faculty with a greater time commitment in attempting to keep both course sections in synch with one another. As a result, faculty would focus on the face-to-face section. Instructor A noted, "when you're not communicating as much…online-ish, the blended piece…you really don't know if they're getting it." Through trial and error, Instructor D continued to "make a level playing field between the online and the remote blended students and the in-class on-campus students…being fair to one is not being fair to the other I think." While Instructor D expressed sentiment that the faculty role in face-to-face and blended learning environments was similar, execution of that role in the blended learning environment in consideration of dual registration was difficult and challenging. Instructor M had not "found a balance", stating the time commitment as a challenge: "I feel like I am on, uh, 24 by seven, seven days a week, for

my students…There is no balance right now." The differing expectations among students and faculty within the dual registration model was apparent. For those faculty who were challenged in having a lack of knowledge of blended learning best practices, dual registration added to their level of frustration.

Instructors C, E, F, G, H, J, and K did not experience significant challenges in the balance of the two modalities. Instructors C, G, and H found setting clear expectations upfront, and providing information in multiple places for both the blended and face-to-face students worked well. Instructor H explained, "as long as you level with students, and you manage their expectations, I don't think it's a real problem." During the live classroom time, Instructor C assigned a student to monitor and manage the online chat where the blended students could engage. Where Instructor C saw the faculty role as different between blended and face-to-face as well as between blended and online, the participant reported managerial aspects to be similar. This could be due to a level of effort put forth in the online environment. If the level of effort is the same whether the environment warrants it or not, the faculty member may not perceive or experience a challenge. Due to the classroom assignment and limited available technology, the participant explained that the blended students would be able to listen to the live class when it was in progress but would not be able to view the classroom. Blended students were told they could use the chat feature to communicate during the live class. An explanation of blended or hybrid course delivery was not included or did not mention the face-to-face student expectations. Instructor K did note the importance of setting expectations around grading and to "design your rubrics, so it's completely understood by the students…how their work is going to be evaluated, what's expected." Instructor E

shared, “I didn’t really see anything differently.” Instructor E actively sought out and created resources in order to problem-solve for all students when challenges arise. The sense was that Instructor E would put forth that level of effort regardless of the learning environment. Instructor F and H expressed the helpfulness of upfront planning as Instructor H shared, “you set it up in advance, and then it runs” and then “you have to respond to student requests, student questions, which usually come via email or via the discussion areas in Blackboard.” Instructor F did not report managing the balance as a concern and acknowledged, “it’s along a spectrum where the blended falls in the middle [compared to face-to-face and online] again in terms of what kind of time you spend online interacting with the students and setting up and managing.” Instructor F also pointed out the student expectation of “much more immediate responses.” Instructor K also found the managerial role to “be the easy part.” As the review of the course syllabi and documents showed, there did not seem to be an institutional expectation for a standardized syllabus for blended courses. This was another indication of faculty having flexibility. On the other hand, it was also an indication of inconsistency for the student experience.

Learning Management System. Administrator A’s perspective on the LMS was that the system was most appropriate for course management and less for learning activity management. The idea was that the institution would “develop some things that people can run on the top of LMS or integrated within LMS that actually are more like defining the learning components.” An example would be virtual labs that were used within some computer science courses for hands-on activities. Administrator A shared

that these "virtual labs that or you know work spaces" provide "hands-on activities that help people to learn versus you know hosting content that [LMS] do or running quizzes." Administrator A sees the LMS acting more as a source for course administration managing such things as the "gradebook, running assessments" but that it was "difficult to expect that LMS would replace all learning because it doesn't have a layer of learning." This was an interesting perspective on the role of the LMS as one of the institutional resources available to faculty. This perspective coming from administration would influence how the uses of the LMS would be promoted to faculty. The way that most faculty were treating the LMS was more of a course management tool.

Faculty reported the LMS as a useful resource in some respects and a constraint in other respects. Instructor A's perspective was that the LMS presented a challenge in the beginning, but with time it had become a resource with the organization of the course materials and assignments. Instructor A's practice was to use the same course site within the LMS for both the face-to-face and blended course sections, while Instructor C created two separate course sites, one for each student population. Instructors B, C, D, J, K, and M perceived the LMS to assist in providing a discipline for organization and for students to communicate with faculty. Instructor D utilized the LMS for organization and tried to "keep the course management system front and center…as a vehicle that invades my instruction, my assignments and whatever to the students." Instructor F agreed that the LMS "helps to have everything in one place for you." Instructor G noted the benefit of the LMS in providing faculty with "ideas of the possibilities" based on the available features. Instructor M noted how the LMS provides a mechanism to support students at a distance. Conversely, Instructor E viewed the LMS as "a huge hindrance." Specifically,

the participant was not impressed with the communication functionality and had to "resort to outside email."

Technological role. Berge's (1995) technological role envelops the responsibilities of integrating and managing technology. Faculty find themselves in technical roles to make students comfortable in the learning environment. In addition to acquiring a level of technical proficiency to allow for the blended course focus to be on learning and not technology, faculty make pedagogical decisions as they consider how educational technology can facilitate learning. Perceptions of the utility and usefulness of technology influence pedagogical decisions through the selection of educational technology.

Faculty must be cognizant of students' comfort with different technologies and strive to make the technology transparent so that it does not inhibit learning. In order for faculty to be effective in this respect, they themselves must have capability and a comfort level with technology (Berge, 1995). This study's findings indicate varying experiences among faculty with technology as well as perceptions of responsibility of technical support for students. Technical support provided by the institution was reported as positive. Technology was noted as assisting with the managerial role and less with the pedagogical and social roles.

Technology experience. Faculty participants had varying experiences with aspects of teaching with technology. Overall, Instructors A, D, E, F, H, and K reported positive technological experiences. Five faculty participants taught computer science-related courses. Other faculty participants worked in a technical-related position or used technology frequently in their personal lives.

Instructor C showed appreciation for how technology reduces the number of managerial tasks, saying "any custodial duty I can get rid of, I would." With regard to leveraging technology, Instructor D was "not sure if I have taken advantage of everything that can be done with technology" and acknowledged the use of technology to date "empowered my ability to lecture and communicate." An opportunity for development in understanding ways of assessing student learning aligned to course learning outcomes was clarified as Instructor D did not "feel like I have a way that technology effectively empowers me to kind of collect things back from students the way I do in listening to them and helping them work on labs." On the other hand, Instructor E continually sought out new ways of leveraging technology as self-reported to be "on the fringe" and frustrated with "pretty dated" classroom technology.

Participants noted early frustrations and challenges when technologies were new and improvements as technology evolved and experience was gained. Instructor A noted "earlier versions of Blackboard…to be sometimes quirky….the challenges can be…brought on by the system itself." Synchronous web conferencing technologies presented challenges for Instructors F and G. Instructor G shared, "it was frustrating because there was a very steep learning curve to begin with and so that was incredibly time consuming…. I felt that I was spending a lot of time on stuff that had nothing to do with the actual teaching." Instructor F noted the issues were with "sound, volume, during my course, it caused problems for me I guess." Instructor J explained the process for faculty: "When we first started using you have to get used to navigating it and understanding how to use it. Like any tool. You just have to use it in order to be able to help people."

Technology acted as a constraint when connectivity and performance issues arose. Instructor D was "often having issues with various aspects of the learning management system" and that "almost all of the problems really truly seem to be on the teacher's side." For Instructor G, challenges arose when out of the country and "internet connection was spotty." Instructor M remained concerned for technology failing during class time, "it's always the little bit of doubt that the technology is going to fail…and then what do you do…I have had issues in the classroom…it can get stressful."

Faculty participants at times took it upon themselves to mitigate technical issues. Instructor A "learned early that I don't rely on the school's resources….I have…not one, but two laptops with me…I bring my own material." Because Instructor M did not want to "throw any student under the bus", the participant "called on my past experience…managed it." Instructor M noted that "if it gets to be a significant challenge…I am aware of the resources, and I will reach out." Instructor K demonstrated a sense of responsibility for the technological role. The participant felt it important to not "expose anything new until I really can explain it and understand it, and can demonstrate it myself," and "if I have any questions whatsoever I go to the IT people and if they can't answer my questions, then I'll go over to the instructional designers and ask them how to do it."

Conversely, other faculty participants avoided taking on the technological role. Instructor C did not want to be responsible for and support students with LMS issues, "I don't want to be coaching on getting them on blackboard, you know so I'll use the other students first, then I'll use…I'll say, oh, call those guys who do that." Instructor C appreciated the institution's technical support resources for students. The participant

wanted to "try to get [students] as far away from me as I possibly can….I do not touch those kind of problems that are, you know, user problems, because I'll be here forever." Instructor G viewed the faculty role as "more deflector" and expressed to students "if you are having trouble, you need to contact these people because I am not the one who can help you." Instructor H's stance was, "if it doesn't work, it's not up to me. I've got enough to do without people's technology. We have people to do that."

Technical support. With regard to the LMS, Instructor A expressed that students are directed to the support group that can assist with technical issues, "They have a pretty strong IT department that can take care of things, relatively quickly." In terms of response time, Instructor A shared, "they're not a 24/7 shop…during the day, it is, they're very responsive…as long as you have set the students' expectation that, hey, if something comes up at night, you know, they'll get back to you the next day." During the class observation, Instructor A explained to the students what to do if there were technical difficulties. The group that supported blended students was who the participant referred students to. It was explained that the participant was just a user with more permissions than the students, so the support staff would need to assist them with technical difficulties. Students were directed to reach out directly to the participant if they had difficulty printing any documents from the course site. Instructor B's syllabus noted that students needed an account to access the course site within the LMS and provided a link to where an account could be set up. The syllabus also noted the course website link along with information on how often students could access the course. On Instructor A's course syllabus, instructions were included for students if they experienced any technical difficulties with the online quizzes. While technical support contact information was

provided in the course syllabus, two different technical support groups' contact information was shared for course related assistance which could be confusing for students. Only one technical support group was reviewed with students during the observation. Additionally, Instructor A included information on web resources for browser plug-ins and information on how to clear the browser cache. Instructor C's course syllabus was a dynamic copy available in the course site for students. It provided links, technical notes, and IT support contact information for students. The syllabus also provided information for the students to obtain free software. The course syllabus provided a "frequently asked questions" section that referenced the learning management technology. The only reference in Instructor D's course syllabus was a link to the site where students would download the technology to use for the course.

With regard to classroom issues, Instructor A confirmed, "They actually have a group that administers everything" and "their group is very, very good." During the classroom observations, Instructor A, Instructor C, and Instructor D were supported by technical staff. The classrooms located in the same building as the technical support staff were visited by the staff to ensure the technology was set up properly to be able to live stream and record the course. Instructor C received support from the onsite technical support group in order to show the lab on the screen. Both the participant and IT staff showed students where they would type from home in order to ask questions through the Adobe Connect application. It was mentioned that the IT staff were located within the building and could see the chat and hear from their office. During the class, the IT staff came in to fix the audio for recording as there were issues with it working properly. The visit to the classroom was initiated by the IT staff. During the class observation for

Instructor D, the IT support staff came by to check in. The participant reviewed the online technology that would be used in the course and what to do if there were any issues.

Instructor B experienced a technical issue in not having all the available technology present in order to conduct the first class as originally planned. Instructor F would manage technical issues as able, but appreciated that "there was always somebody there to answer the questions. I certainly utilized that help." Instructor M noted the quick response time: "There have been occasions when I've had to, uh, sort of in a panic, call them, and somebody's been there very quickly." When asked whether the institution explained the purpose the technology serves and the potential applications of it, Instructor C replied, "Yeah…they pretty much make…anything that's available, technology-wise, these guys'll give it to you."

In summary. Based on these reported findings, it was evident that faculty definitions and views of blended learning differed from one academic department to another. While the institution honored the faculty role and academic freedom, faculty perceptions and experiences were partly influenced by the blended model they were operating within and how well they were prepared and supported.

Faculty participants who viewed the managerial role as similar in the blended and face-to-face environments noted assigning the same assignments to both student groups and communicating to both student groups in the same manner online. Other similarities mentioned were related to determining student grades and being supportive to students regardless of the learning environment. The faculty participants that highlighted differences between blended and face-to-face environments mentioned the online

environment as more student-driven, where the faculty member acted more as a coach, and more instructor-driven in the face-to-face environment. Faculty reported spending more time and effort with tasks and interactions when there was increased online aspects.

Faculty participants reported being able to assess student understanding better in blended because of the face-to-face element. Faculty perceived a better connection to students in the blended courses. One faculty participant noted the role in blended courses was a hybrid role where the faculty member facilitated learning online and actively taught while in the face-to-face environment. The role in the online course was also expressed as a paper corrector while the faculty member taught the students in the blended course. Mechanics were reported as different between the two modalities. Faculty also mentioned the workload in terms of time, content, and communication being greater in online environments.

The dual registration model presented a challenge for some faculty participants in keeping the two student groups in synch or on a level playing field. Faculty mentioned never knowing if the blended students would attend class, participate live virtually, or view the recorded lecture. Faculty reported the LMS as a tool to assist with discipline, organization and structure of the course as well as a means to communicate to both student groups in the same manner. While some faculty experienced challenges with some of the LMS functionality, others viewed the LMS features as providing ideas for online activities. Faculty emphasized upfront planning and setting clear student expectations and managing those expectations throughout the course as a strategy to effectively manage the blended course.

The majority of faculty participants were pleased with the response of the technical support staff. Some felt it important to be comfortable with the technology before the students used it and would assist students as able. Some felt it important to focus on the teaching and leave the technological role to the technical support staff.

Perception of Technology

The previous section explored faculty participants' knowledge and application of blended learning pedagogy and noted influence and impact of perception. To gain further insight into the influences shaping faculty participants' perception, an examination of their history and experience with technology is presented within this section. Equally important is an examination of how faculty's comfort level with and perceived helpfulness of technology impacts use in the educational setting. An understanding of the history and experience with technology provide context and insight into faculty's positive and negative experiences in blended learning environments.

Faculty participants for the most part used technologies that they were familiar with, required by the institution, or provided a solution to a challenge they were experiencing. The majority of faculty used technology at a basic level for some communication, sharing of information, and submission of assignments. As faculty gained experience or were exposed to other learning environments, their use of technology evolved.

Technology comfort level. Nine of the faculty participants perceived themselves to be comfortable with technology. Instructors A, C, D, E, and J work in and teach computer science. Instructor A's technology confidence was "if you…rated it one to 10…I'm at like about a 15, but that's really because I have a very highly technical, um,

day job, if you will." In spite of this, Instructor A's perception as a faculty member was "old school" preferring face-to-face over blended. Instructor E stated, "Well, my level of technology is um is actually extremely sophisticated." Again, Instructors A, C, D, and E worked in technology-related fields in their full-time profession. Instructor F, J, and M felt "very comfortable with technology, and Instructor H reported, "I'm pretty good." Instructor K stated, "Well see, the technology that I use, I don't really have any problems with it and it's fine."

Instructor B showed less enthusiasm for technology rating comfort level as "if I said, one is not comfortable at all, and uh, 10 is exuberant and diving in, I would rate myself somewhere around a seven…I get by with technology, and I will tackle it, you know, as I see an opportunity to tackle it." The participant was more focused on "students and their needs, rather than trying to bring more technology to bear." Instructor G reported not being comfortable with technology, "It is not great. I think sometimes it can be used well but I think sometimes it can also be used as a red herring if you will for good teaching." While Instructor G noted technology as sometimes frustrating, the comfort level was not an indication of technology avoidance. This may be due to having educators as parents and very positive personal experiences with educators. Instructor G spoke about a personal enjoyment of learning as well as facilitating student thinking.

Summing up, while the majority of faculty participants reported a high comfort level with using technology, that in and of itself was not a predictor of sophisticated use of educational technology in a blended learning environment. The indication of comfort with technology did not determine whether faculty participants embraced the use and application of educational technology and blended learning.

Helpfulness of technology. With regard to the helpfulness of technology in their personal and professional lives, overall the participants felt as though technology was helpful but there could sometimes be trade-offs. Specifically, participants noted a need to increase understanding of the LMS features and tools. Instructor A found technology as "second nature" but in terms of communication again being "old school" believed "more in the telephone." Synchronous communication technology was perceived to be helpful for students when they have a need to travel. Instructor B responded to the question of helpfulness as, "I think so, because if it wasn't, I'd probably stop using it." An example in practice was eliminating synchronous communication based on the challenges experienced and perceived lack of value for the particular course taught. The issue seemed to be a lack of strategy in managing student interactions and not necessarily the technology.

The majority of faculty were not involved in conversations with each other or administration that explored potential uses and instructional strategies of using educational technology for the benefit of student interaction and learning. For most participants, the application of technology was minimal and not driven by a focus on the student experience in achieving student learning outcomes by best leveraging and integrating the face-to-face and online learning environments. Lack of collaboration among and training for faculty has resulted in limited perceptions of and experiences in using educational technology. Again, while some faculty participants used technology for communication and in other ways in their personal lives, they did not necessarily use it the same way in the blended learning courses. Faculty participants including Instructor C appreciated when technology could eliminate basic tasks while teaching by going

paperless. As Instructor C shared when speaking about the course website, "To the extent that technology eliminates what I would call the custodial duties…I use it, I mean, any custodial duty I can get rid of, I would." Instructor D acknowledged the helpfulness of communications technology within a personal context, but acknowledged that more could be done using technology for communication and in other ways in blended courses. Instructor D talked about how the technology assisted with empowerment of the ability to lecture and communicate through the live recordings of the face-to-face classroom. This reflected more of a one-way communication strategy. While Instructor E did not perceive the LMS as helpful because it did not "support a lot of the kind of upcoming or new techniques for engaging with people," the acknowledgment of helpful alternate technologies was made. Instructor E was an example of a faculty member who learned online, began teaching online initially, and was proactive about exploring tools and uses of technology to aid in the learning process outside of resources provided by the institution. Instructor F found technology helpful and desired to use "social media…a little bit more" in blended courses. Based on personal experiences with technology, teaching online, suggestions from peers, and receiving positive feedback from students for the use of certain technologies, Instructor F was encouraged to do more with technology. Instructor G found technology to be a "double-edged sword." The participant found technology to help with communication but at the expense of less face-to-face time during office hours. Due to experiencing frustrations, Instructor G's use of technology was limited. The participant did recognize possibilities for use in blended courses, but only if used smartly and not to let it detract from learning. Instructor H's stance was, "We all use technology in our daily life." Instructor H became more aware of

the possibilities through experience teaching online. Instructor M had a personal view of being "old school", preferring face-to-face meetings as "asynchronous communication is not always the right thing to do," but did acknowledge technology assisting with communication and being in touch. While Instructor J recognized the necessity of using technology, a challenge in teaching certain subjects such as software engineering online was expressed. Instructor K found technology to be "a little too helpful….I don't want to hear from [students] all day long, every day."

Overall, faculty participants' responses indicated a limited understanding and view of how educational technology can assist in fostering a positive and effective blended learning environment. There was a recognition that technology can be helpful in everyday life. Educational technology was reported to be helpful in making communication easier but at the expense of losing social cues picked up in face-to-face interactions. Additionally, technology was reported as more helpful when it functioned properly, was up-to-date, and did not detract from learning.

First educational use of technology. Faculty explored their first use of technology prior to teaching in blended learning environments. Faculty discussed their experience with technology including challenges and issues faced. Depending on when faculty began teaching, initial technology use differed; however, all participants acknowledged using technology from the start of teaching. For instance, Instructors A, B, C, F, G, H, and M mentioned early use of technology including using Microsoft PowerPoint. Initially, Instructor B started with using an overhead projector. Instructor D and E started teaching in the online format, therefore using technology including the LMS. Instructor F used technology such as smart boards as a graduate student teaching.

The first use of technology for Instructor J was a light-emitting diode (LED) projector and the LMS. Instructor K began teaching blended courses, therefore using Blackboard as a LMS as well as incorporating Microsoft PowerPoint.

With regard to technology use prior to teaching in a blended learning environment, Instructors A and C utilized a website for posting course documents for the students to access. Instructor B was exposed to different technologies teaching online for another institution and began to incorporate technology in face-to-face courses, explaining "I learned things from working online…and started applying them in the classroom before we would call what I was doing was blended." Instructor C's course correspondence occurred in the online environment, but that changed over time. Instructor C explained, "I had abandoned it a little as time went, because the, that Blackboard inbox really wasn't that good, and I'm missing too many messages." Instructor D moved from the online environment to the face-to-face and blended environments. The nature of the course provided a need to conduct online demonstrations to assist students with the computer science content. While the participant did not like PowerPoint, there was a sense of needing to use it. Instructor D recognized that students and their needs change. Through experience, the participant learned that students needed less lecture time and more hands-on lab work and support. Instructor E was a student in an online program prior to teaching online and worked in technology roles in industry. As someone who joined technology educator communities and initiated their own development in teaching with technology, Instructor E was able to "actually incorporate more digital and visualization exercises and techniques in the classes." Instructor E further explained, "I'm always out there looking for new things for

you know that we can engage with people in a different way." As Instructor E experienced any limitations of the technology the institution provided, external options were explored and incorporated where able. Instructor E found much of the technology at the institution outdated and limited. Instructor F utilized the LMS in a way that was first encouraged by the institution or a colleague. After receiving a positive reception from students for "doing online quizzes," Instructor F was encouraged to adjust applications of technology. Some of the technology Instructor F had used both in face-to-face and online environments included "online discussion boards, set up a blog for one class that we did, online quizzes and assignments, dropboxes…video, so recordings of lectures." With regard to challenges, Instructor F reported, "there were some more technical aspects so I did have to learn some new things…blogs that I used…I didn't face any major technological challenges." Instructor H always used the LMS and moved toward embedding videos over time. Instructor H's use of technology was fueled by experience in the online environment: "Once you start doing online, you realize what the possibilities are." Instructor M utilized technology to access the internet for videos and other resources so the technology in the face-to-face classroom to allow for that was found to be beneficial. Instructor J utilized the LMS because it was made available by the university and provided "a central point for students to get the information, to upload information. Basically it's a, I'm a nexus for the class." As Instructor K began teaching in the blended format, technology utilized included "blackboard and…PowerPoints, gradebook…discussions that students could have with me not being involved in it."

In summary. While the majority of faculty participants reported a high comfort level with technology, educational use was fairly limited. The LMS was mainly used for

posting course materials, submission of assignments, and some online discussions. Faculty participants who initially taught or learned online experimented more with educational technology. Very few faculty participants looked outside of what the institution provided for meeting the needs of students with educational technology. Faculty participants tried new approaches if suggested by their peers or exposed to teaching for other institutions.

Technology focus was centered on functionality rather than on application for facilitation of learning. Faculty viewed technology as helpful in their everyday life especially related to communication but did not embrace the same capability in the classroom. Faculty participants were sensitive to technology functioning properly and not detracting from learning.

Institutional Support and Resources

In order to understand the factors influencing blended learning faculty experiences, it was important to examine the institutional resources and support available from both the administrative and faculty perspective. This part of the chapter will explore such perspectives as well as consider the following research questions: *how do educational and instructional support staff perceive faculty management of blended learning environments?, how do faculty perceive institutional support* and *resources impacting the management of shifting roles in blended learning environments?, and what do faculty identify as important components in blended learning professional development programs?* A major finding of this study was the inconsistent experience among faculty related to support and training for course design, development, and instruction. Institutional resources were lacking for supporting blended learning versus

distance education. Administration reported not soliciting feedback from faculty with regard to training and support needs. There was a misperception on the part of administration that faculty knew about and utilized resources available when needed. Faculty were more likely to reach out for technical support rather than pedagogical support. Pedagogical decisions were made in isolation with little interaction and collaboration among faculty. Faculty participants demonstrated a lack of knowledge about pedagogy and teaching and learning best practices. Faculty expressed desire for increased communication and training from the institution and peer collaboration opportunities.

Administrative perspective. This section will explore the research question of *how do educational and instructional support staff perceive faculty management of blended learning environments?* As an administrative staff member of the educational technology and innovation group, Administrator A was interviewed twice regarding the support of blended learning. A small group of three full-time staff members were responsible for supporting blended learning programs. The mission and purpose of the group was to "provide, make sure that technology is properly used in education, so to enable faculty to do their best." The group supported blended learning and would research new technology for experimentation. Within the institution, there seemed to be more focus and standardization toward the online programs.

According to Administrator A, the blended environment provided more flexibility in allowing for experimentation. Specific to blended learning responsibilities, the education technology and innovation group prepared content in the LMS by working with faculty. Support offered included assistance with creating tutorials and videos, live

classroom sessions, and coordinating with other departments for equipment needs. In addition to staff, students were utilized "for more like routine tasks." One staff member focused on blended programs and another staff member focused on the technical side of systems. The director of the group operated at a higher level, participating in university wide groups to determine strategy and approach toward educational technology and innovation. One example was the consideration of the role of the LMS. Due to the small size of the group, there was a need for collaboration with other university and school departments. The institution had a large information technology group and the individual school in which the educational technology and innovation group operated had a separate information technology support team.

Within the individual school, there was a separate division that supported online courses and programs. According to Administrator A, the technology that was utilized in both the face-to-face classroom and in online courses was leveraged as appropriate in blended learning. As there were only three full-time staff members supporting blended learning, resources were limited compared to those available for online learning. The blended learning staff would respond to and support faculty when asked in, making adjustments with content or technology in blended courses.

The educational technology and innovation group began supporting blended learning faculty through training classes and seminars. Once the faculty acquired a base level knowledge of blended learning, they were reported to not want to attend future sessions repeating the same content. Therefore, the educational technology and innovation group shifted focus toward one-on-one training for the few new faculty each semester. Administrator A explained that the group collaborated with the information

technology department "who provides the microphones and hardware and installation of the software" and other departments so the educational technology and innovation group would not do "routine stuff that other departments already got to."

Administrator A reported ongoing service to faculty training and support, for example, "whenever the system gets upgraded, it requires some training." The group believed that faculty listen more to their peers; therefore, finding a faculty champion to use a new technology or approach was viewed as an appropriate strategy to foster faculty adoption through "a little artificial competition." While the blended learning staff would attempt to initially train faculty new to blended learning one-on-one, faculty champions were preferred to communicate and encourage new techniques and approaches. It was not apparent how the faculty champions did this. There was an inconsistent awareness among faculty participants regarding ongoing training opportunities. At times, faculty would begin a new semester and find new features within or upgrades to the LMS with no training or preparation. When asked if faculty are surveyed for their interest in professional development, Administrator A replied:

> No, we don't do it formally. The central IT organization provides formal training on a regular schedule and they do some surveys of faculty, but it's done at the university level, not at our level….We work with specific courses and specific faculty as specific modules are being developed.

Within the institution, different groups would take the lead with training on different types of technology. As Administrator A pointed out, formal technology training moved to a central organization. Administrator A's group would support faculty more informally one-on-one when requested. When asked if faculty manage the shifting roles

well in blended learning, Administrator A did not believe he was the appropriate person to ask as he did not "see all the components of teaching." His sense was that more faculty work on introducing new elements into the learning environment based on student requests to faculty. This response would suggest that the blended learning staff are not fully aware of how the academic departments or faculty are managing in the blended learning environments. Therefore, it was not clear how the blended learning support group could fulfill their mission by making sure that technology was properly used and that faculty were enabled to do their best. There would seem to be a gap in the evaluation and communication of effective blended learning practices at the institution.

When asked about a participant's general perception of how well the available support services influenced how faculty managed the roles in blended learning, Administrator A expressed that "good support services are very important because faculty have very limited…time to learn new technologies." The group strived to offer support in order to avoid negative faculty experiences because "if the person's experience is bad, it makes it much more difficult for people to come in to try it again." Again, there was a recognition of the importance of support services, but a lack of formal evaluation of how well the support services were meeting the needs of faculty.

Some faculty who taught across different modalities integrated what they learned from blended to face-to-face and/or online models. Additionally, Administrator A reported that blended learning also "bring[s] something to the online programs….There's some cross population between different ways people teach." Administration believed that "faculty who started to teach blended, say, started to teach differently in the classroom." Faculty were reported to be involved in the development of blended courses.

Specifically, content from the seven week online courses was converted into 14 week blended courses. Faculty were asked "how they want to structure it." Over time, the online group made some decisions considering the blended format, for example, changing the learning unit structure language from *week* to *module.* The institution established professional course designers for the online courses.

The educational technology and innovation group responsible for blended learning focused "more toward technologies…trying to take all the instructional design for the course, by migrating it from online to blended, preserving the essential structure, idea of the course." In the situation that an instructional designer was needed for blended learning course development, the group would look to collaborate with the online unit's resources. Administrator A emphasized that "Content is the king….It doesn't make sense to maintain blended version of content and online version of content." Therefore, the blended course development approach was to take the online master course and work with faculty to convert it into a 14 week semester format. Administrator A shared the faculty role in blended course development as "They are always involved to some extent. Because we wouldn't decide when deliverables are due…they will keep the ultimate responsibility…We will prepare something, will ask for feedback." When faculty disapprove and want to change course curriculum or direction, the blended support group "help them to put this content together….So, we, sometimes we cut corners on instruction design component, because it's safer for keeping the updated content and making sure the faculty teaches what they want to teach. All right, so faculty is in the driver's seat always and we are just trying to help."

With regard to staying abreast of blended learning best practices, the blended learning support staff was challenged with limited time and resources. Internally, the group participated on university-wide committees, including a teaching and learning committee and a communications and collaboration committee. Administrator A shared that there were about eight different committees guided by the central IT organization. The educational technology and innovation group participated on some of those committees. The challenge seemed to be the alignment of purpose and efforts. One committee would review items related to the LMS. Video conferencing would fall under a separate communications collaboration committee. As the educational technology and innovation group considers technology needed to support blended learning, the role of the group within the institution needs to be considered as they "have two hats, from one perspective we support blended, from another perspective, we support technology in general for [the school]." This response offered insight into how some conversations related to teaching and learning occurred and suggested that with so many committees communication to all staff and faculty could be challenging. The educational technology and innovation group participated in a consultative manner. The group managed the distribution and access of helpful information through a website. Administrator A explained how the information was presented to faculty: "In this website, we try to provide some conceptual way to look at technology. So, instead of looking at technology directly, you have to actually look, think about it as a set of capabilities." In conversations with the faculty participants, visiting the website for information did not come up. Administrator A further explained their approach to offering support and dissemination of information was through talking to faculty. The strategy moved from

formal to informal where the blended support group believed all faculty "knows that we exist" or faculty find them through other departments they collaborate with. There was an assumption that all faculty including adjunct faculty knew the blended learning staff and would reach out for assistance and support. Still, this notion assumed faculty would be aware of when improvement and assistance was needed. The institution moved from a more formal communication and support plan to an informal one, putting the responsibility on the faculty to reach out and connect for training and support. During the second interview, Administrator A was asked how they kept in touch with faculty and how faculty would get in touch with their office. Again, the participant stated some email is used but mainly faculty are assisted where the office is located so "most of the questions and answers happen when people just stop by." This revealed a passive approach and would suggest that only the faculty who had the time to stop by may receive or share information that would be beneficial to either side. The group's resources seem strained, therefore, faculty were not able to stay on top of or communicate necessary information to faculty.

Training and development. Administrator A was asked if faculty were trained on the benefits of web conferencing technology to support communication and interaction. The focus of the educational technology and innovation group was on "how to use it." The applications and benefits of technology were explained to be addressed "from people talk[ing] to each other. So, sometimes the push comes through the academic departments." This response emphasized the institution's support of blended learning faculty to engage with one another in learning about technology uses and that the blended learning staff's main focus was on the functionality of how to use the technology. While

there was support for faculty engagement, it was not clear how faculty learned about blended learning pedagogy and teaching and learning practices. There seemed to be a lack of a coordinated effort and plan to educate and promote effective blended learning practices.

Technical support. From a technological role perspective, the educational technology and innovation group or blended learning support staff acted as a central point of contact for ongoing faculty support. Due to limited resources, the group collaborated with multiple departments. The group's challenge was that they were "a small hub." As they were "more successful" in supporting faculty, "more often people come to this office." The faculty that began to seek out the group's support were not only blended faculty but also face-to-face faculty and online faculty. This ended up putting a lot of strain on the staff as they "sometimes get a line of people at his door….It's always a challenge, it's ongoing." When asked if the participant believed that faculty knew the difference between the educational technology and innovation group and the central IT organization, the participant responded "People that we work with on a regular basis know us very well, but again because we're very, very small and even for our college size, we don't penetrate all departments." Certainly, this response indicated a recognition that not all academic departments or faculty were engaging with them. When assisting faculty in the selection and implementation of technology, Administrator A stated the emphasis was on capability and not specific tools. The group would ask faculty to think about "what message you want to send to students, [and] why are you doing, essentially? What is the pedagogical value of what you are trying to do? And technology will change, but capabilities, we want people to think about capabilities and not software."

Administrator A shared that the academic departments talked about educational technology and "have regular faculty meetings…Sometimes they invite us [adjunct faculty]. Sometimes not, but definitely they discuss how to improve quality." How the academic departments communicate with their own faculty including adjunct faculty or across academic departments was not clear. When asked what challenges stood out with regard to what faculty struggle with, Administrator A responded, "If I knew, I would say no. Because I don't know what I don't know." The group strived to "make sure that people don't use technology as an excuse not to do something. So, we are trying to make it easy…so people can focus on what they teach instead of struggling with a technical problem with the system." Again, the group whose mission it was to ensure the proper use of technology as well as enable faculty to do their best did not necessarily have a full picture of the struggles faculty faced. The group seemed burdened due to a lack of resources and time.

When asked how the institution knew if technology was being used properly, Administrator A shared that formal metrics were non-existent. Indirect measurements included student evaluations compared against face-to-face and online course sections. However, this was reported to occur "once in a while" and "not a regular practice." Analysis to date showed blended performing a bit better than on-campus because of the level of support for students. While student evaluations provided one perspective from students who actually filled out the evaluation, the institution did not have a mechanism in place to gather faculty feedback. Moreover, a formal student learning outcomes assessment plan was not developed or in place.

Faculty perspective. In order to fully address how faculty view their role within the blended learning environment, this section will first consider the influence or impact that the presence or absence of institutional support and resources have on the faculty's ability to be effective by considering the research questions: *how do faculty perceive institutional support and resources impacting the management of shifting roles in blended learning environments?* and *what do faculty identify as important components in blended learning professional development programs*? The findings from this single case study show that faculty perceptions of institutional support varied. Faculty reported a lack of formal training and support related to blended learning. Training available was focused on technology functionality. Faculty participants expressed a desire for and appreciation when they connected with peers for support. Faculty participants expressed a wish for understanding what type of student sought out blended learning and what the student expectations were for their experience. Faculty reported a desire for increased communication through varying channels. Most faculty participants relied on the institution to educate and supply them with information on blended learning.

Communication. Faculty perception of institutional support varied in such areas as communication, and technological and pedagogical training and development. Faculty participants were asked how they continue to receive information on blended learning. Most participants reported relying on the institution for information. Some faculty participants paid more attention than others to the information provided by the institution whether in the form of an email, an article, or information on training workshops. Instructors A and H seemed knowledgeable about the available resources. Instructor H was a full-time faculty member and was aware of resources within the distance education

group and within an IT department who supported blended learning technology. Instructor A shared, "The school does a pretty good job about notifying us of, uh, updates or new features. Or they do run classes on, you know, using it. So, it's pretty much all through their communication." Instructors B and G were not aware of and could not speak to institutional communications and available training. Instructor B reported a high level of support and training at another institution, the acknowledgment of this site institution's efforts was, "Good question. Maybe I haven't paid enough attention because I really don't know. So, it may not be there to the degree that, it could be." Instructor G wondered if the lack of communication was a result of being an adjunct and not on the "regular teaching rotation." Instructors C, D, F, and J acknowledged email communications from some groups within the institution. Instructor C viewed email communication as effective, but reported that departmental meetings "don't have an agenda...don't stay on topic." This response indicated that some faculty participated in meetings, but that they were unstructured and viewed as ineffective. Instructors D and E received information from the institution and external resources. Instructor D subscribed to some newsletters to "keep aware to some degree of what's going on" and Instructor E proactively researched new technologies because the participant did not see a lot coming from the institution. Instructor F mainly received information through email and personal contacts at the institution, but had received a lot of information at other institutions. Instructor M was aware of training workshops. Instructor K looked to the student evaluations as "there's a lot of area for improvements in how students evaluate a course."

As these responses show, the faculty had different opinions and experiences regarding communication from the institution. The faculty may have received

communications from the central IT group, the academic department, or the education technology and innovation group. Some faculty had attended training workshops or academic department meetings. Some faculty received more information from other institutions for which they taught. What seemed to be missing was a sense of what was expected and important to pay attention to. The institution did not seem to be setting clear expectations for faculty. The conversation of how blended learning fosters greater student achievement through effective instructional practices leveraging both modalities seemed to be limited to non-existent.

Training and development. Faculty experienced many constraints which influenced their reflection and recommendations with regard to training and development opportunities. In faculty responses, a repeated theme was the need for improved initial training for faculty related to blended learning pedagogy, course design, and technology. Further, it was important to faculty to understand what students were expecting or looking for. There was a reported lack of formal training. When faculty experienced collaboration with peers, they highlighted the positive value that had for them.

Initial training. Instructors A, B, C, D, and E reported a lack of initial formal training. Instructor B recognized the complexity of blended learning environments and shared that there was not "a whole lot of support for blended learning" and felt the institution should increase its "organizational commitment, to helping instructors fall into these, or lead them into these, these disciplines." Instructor B believed initial training should have focused on course design, and both Instructors B and C felt the institution did a disservice to faculty by positioning blended courses as similar to face-to-face courses. Instructor C identified the institution as failing at understanding and

communicating the difference between blended learning and face-to-face learning. Since the institution seemed to lack understanding of the complexity and requirements of blended learning, the appropriate training and support was not in place for faculty as described by the faculty participants. Instructor B suggested to "put the students' hat on and give you that day one, what that student is looking for…why that student is in that environment and not in the classroom." By not doing so, faculty were blind to "understanding what students wanted, and therefore, it was a lot difficult to, to tell the faculty what they need to give, or needed to do." The participant acknowledged even faculty who have taught for many years needed to approach blended learning environments differently, "I have to stop and really think, what I wanted the student to learn. Not what I wanted to teach….that is harder, but I think it's better." Instructors C and E expressed that they were left on their own with no training to design and develop a blended course and that the institution did not invest in training on instructional pedagogy. Instructor E expressed that faculty "get left hanging out to dry during that [course design and development] process and and not in a bad way. Um, but in that there is no manual for doing it." Instructor E's experience showed again the extent to which faculty were left on their own to figure out how to design, develop, and instruct a blended learning course. Instructor E suggested the institution consider the perspective of faculty who are coming from online to blended learning.

Instructor H who was a full-time faculty member was not aware of any institutional training, saying "it's weird, isn't it, because I'm not entirely sure we have faculty training, not formally." The participant shared knowledge of a research symposium and a conference offered once a year by the institution's teaching and

learning center, but explained faculty would share with one another a few times a semester during a faculty meeting. Instructor H expressed that knowing more about blended learning upfront would have been beneficial, "I'm not saying you get dumped in at the deep end, because there are people to hold your hand. But you learn through experience. You learn through doing it. And you make mistakes now and again." It was telling for a full-time faculty member to be aware of certain support services but not to know if there was any training available for faculty.

Instructor F experienced one-on-one support initially and "was pretty satisfied" as "they were very responsive." The participant appreciated the opportunity to ask questions related to the specific course and not spend time in training "where I had to hear all about the Blackboard system again from the beginning, so it was nice to have that individualized attention." When the institution provided support and paired faculty together, the experience as Instructor F reported was more positive. Instructor J did not have any issues with training and thought "everything they did was pretty good."

Training needs. The proactive outreach and engagement from the institution was lacking according to faculty participants in the area of ongoing professional development and improvement. With regard to current training needs, Instructor A did not believe there was anything more to learn "because I've done it just so many, you know, classes now." That said, the participant did express a desire to know "more of the type of student who would be inclined to take the blended versus the face-to-face." An understanding of students who enroll in blended courses and what their needs are would help "me know if I'm going to have the expectation that I may have to reach out to them. Um, or if they're experienced and know how to navigate the site and things like that." Instructor C did not

see a need for additional training, as resources were available for technology needs and the "content side is, is pretty much your own bailiwick." This seemed concerning as the data showed there was a lack of knowledge in blended learning practices as well as less focus on the blended student's engagement and experience. Instructor B would prioritize the pedagogical approach as "you really need to understand pedagogical strategies before you can do a good job of…either online or blended." Instructor B's insight related to the pedagogical role of faculty was key and showed that pedagogy was missing from faculty preparation and training. Instructor B expressed an interest in attending training on course design. Instructor G was interested in getting support for creating a video with multimedia integrated in, "I would have liked some support in being able to integrate if I were lecturing and I cut out and then have an image that I was referencing to make it a little bit more produced but I don't mean it in a Hollywood kind of way." Instructor G's response confirmed that all faculty did not know the services and support available. Interestingly, the educational technology and innovation group believed all faculty knew about the services they provided. With regard to current training needs, Instructor M expressed learning about potential online activities possibly using a whiteboard within a web conferencing platform. Instructor J shared, "Not at the moment. To be honest, I haven't taught a blended [course] probably a year and a half." Instructor J expressed a comfort level with knowledge of teaching, saying "you know, teaching for over 14 years I kind of know everything." As the evaluation and sharing of blended learning practices was limited, some faculty felt there was not anything new to learn. This seemed to be an instance of faculty do not know what they do not know.

As findings indicated, there was minimal engagement and interaction with blended students online; faculty were asked about training or support for synchronous technologies to support interaction, communication, and community building. Instructor B shared it "wasn't evident that I needed that other than here's how you turn it on, here's what to expect on the screen." This was an example of faculty not knowing what they do not know. The application of educational technology and complexity of blended learning usually uncovers for faculty the amount of knowledge to gain and how much there is to learn. Instructor B highlighted again the focus of training efforts was in the functionality of how to use technologies and not on the pedagogical and social uses and possibilities. Instructor C shared, "I still don't think there's enough communications with, um, blended students as a group." Because faculty were not equipped with the knowledge of how to effectively design blended learning experiences and engage blended students, those students were viewed as left somewhat on their own with little communication to them. Some of the faculty did not seem to feel responsible or empowered to develop solutions to that challenge.

Available training for faculty focused solely on technology functionality. Thus, it was no surprise that faculty participants highlighted technology when reflecting about training experiences and needs. Instructor A viewed technology training to be a priority for faculty as it was important to be skillful in using the LMS. At times, faculty experienced new features or upgrades being introduced with no communication or training. Instructors C, D, G, and M also referred to technology training needs related to LMS features. Faculty participants mentioned the importance of continuous communication and training whether formal training courses or faculty collaboration and

sharing opportunities. Instructor D made the point that if the institution wanted faculty to master education technology and blended learning there should be an "emphasis on ongoing training to these things that are changing every semester. That's not just cash, that's also having a concerted effort to engage us." Faculty participants spoke about limited available time but as Instructor D shared, "I still in a way struggle with which is how can I leverage technology more effectively in the blended format." It's just a challenge to make it more than just a lecture with remote TV. Instructor D's point showed how some faculty recognized that they needed more training and support related to blended learning practices and were looking to the institution for support. Another concern related to time was, as Instructor G highlighted, the desire to understand expectations for time commitment to become comfortable with technology, "Again, I think I just wish I knew how long it would be to become comfortable with the technology."

Peer collaboration. The desire on the part of faculty to collaborate and share with one another was repeated amongst many faculty participants. Instructor C was asked if there could have been more support offered in managing the blended learning format and the different roles that it required. The participant expressed an interest to "get three or four blended teachers…together and talk about what works and what doesn't work for them and…learn from what other guys are doing." It was reported that there was not a lot of interaction if any among faculty. Instructor C also offered insight into how faculty respond best to other faculty: "As far as a third party doing it, I don't know. I mean I don't think there's anyone that clever. The learning comes from the doing it. Other people doing it. That's when it's going to get better." Instructor E also desired the

opportunity to "bounce ideas off of" other faculty and to "set up a peer review… or at least checkpoints along the way." The participant felt that full-time faculty had "great personal experiences" that could be shared with adjunct faculty and would help adjunct faculty not to feel "alone in deciding what should be developed for the online environment and what would work best in the face-to-face environment." Instructor F was interested in "maybe to see how other people have implemented it, getting ideas by seeing how different courses are using the options available to them. Or looking at their Blackboard site or even sitting in on a class." When asked whether the institution provided opportunities for peers to work together and share best practices, Instructor F shared "they did have me talk to somebody who had taught the blended course format before, initially, and I think doing something like that again would be useful…I haven't heard of any opportunity to do that." Instructor G reflected that it would have been beneficial to observe another faculty member's class especially for gaining the student perspective. Instructor M reported a positive experience with a mentor who provided one-on-one support. While Instructor H mentioned sharing best practices within the academic department, it was not clear how adjunct faculty were engaged or communicated to with regard to those best practices. Instructor H sought out support when needed and shared, "I think we seek it out when we want it. We have the expertise. We have good technical people." Instructor H advised the institution to continue with blended and online as, "online and blended are the way to go."

Summing up, faculty participants reported a lack of commitment and investment in the training and development of faculty. Faculty noted that the institution did not necessarily recognize or acknowledge the difference between blended learning and other

learning environments. The training and support available focused on the functionality of technology. An element that was noted as missing from training and development was a focus on pedagogy. A repeated theme related to desired components of training and support was collaboration and learning between and among faculty peers. The knowledge of support resources was inconsistent among faculty. Interestingly, there was a misperception on the part of administration to think that all faculty knew about the blended support group. Administration contradicted this perception by stating that penetration within all academic departments was lacking due to limited resources. The lack of training and support constrained faculty and impacted the blended learning experience.

Technical support. Both Administrator A and some of the faculty participants noted the rich allocation of resources to the online division attributed to the growth and success of online enrollments. Instructor B had minimal technology experience in industry and expressed the following with regard to technical support for the online programs: "There's a fairly robust online support group." Specifically for blended programs, Instructor B shared, "I don't know of anybody that's really doing that for [blended], other than the technology people who are doing videos and stuff." Due to limited resources available for blended programs, there was a need for inter-departmental collaboration and utilization of student assistance for support.

Instructors B, C, E, and H expressed the positive sentiment of faculty participants with regard to technical support satisfaction. As Instructor E pointed out, "there's tons of resources….really good support network, um, and infrastructure, um, around the tools and different aspects of it…the hard part again is finding out…who's the right person to

call for the right problem." For all students including blended and face-to-face students, resources were explained as including an IT support office where students can walk in if they were having issues. Instructor H explained there was free virus checking software within a huge library of free downloadable software for students. Instructor M was looking for more classrooms to provide connected computers.

Course design and development. A significant finding of this case study was the lack of focus on pedagogy from both the administrative and faculty perspectives. Undeniably, the majority of faculty participants lacked a clear understanding of pedagogy including effective design and instructional practices in blended learning environments. Faculty did not seem to be educated on learning theory and pedagogy. The institutional training that was available focused on technology functionality. Not surprisingly, faculty participants experienced different levels of support depending upon which academic department they taught for, and whether the blended course was being adapted from an existing online or face-to-face version. A major influence on course design and development was faculty's perception of blended learning and technology. Additionally, their experience with online or face-to-face instruction influenced their initial approach to blended learning. As Instructor K had been involved with blended learning years prior at another institution and felt prepared for teaching blended courses at the site institution, the value of instructional design resources was emphasized. As the findings of this study suggest, instructional design resources were allocated to the online programs and not necessarily for the blended programs. Occasionally, faculty benefited from instructional design resources through the assistance of the educational technology and innovation group's collaboration with the distance education unit, or through relationships

established with instructional designers from teaching online. When the faculty had support from other faculty, educational technology, or instructional design resources, the experience was reported as more positive.

Collaboration. Few faculty participants expressed collaborative course design and development experiences. For those that did experience collaboration, full-time faculty mentors who were responsible for the course worked with faculty participants. Instructor A described a team approach working with faculty who taught the course face-to-face and online. The team divvied up the work by chapter, and with a guide for workload per chapter, developed the course. Instructor F's experience was reported as "really positive…I enjoyed it and I did feel like I got a lot of support." The participant made major decisions and had a lot of support from the faculty member who originally taught the course and instructional and technical resources to adapt the course for blended learning. There was collaboration in exploring what was feasible and had worked or not in the past. Communication continued throughout the semester. Instructor H spoke of the distance education instructional designers who were resources during the development process. Instructor H demonstrated increased knowledge of student learning outcomes which may be due to full-time faculty status and having more departmental conversations. Instructor H explained that pedagogy is understanding what teaching is about and the focus in any modality should be on the same course materials and outcomes because of accreditation. Instructor K found the majority of students being prepared for the online environment. With respect to course development, Instructor K described the necessity of course planning and preparation and working with instructional

designers. The participant's approach would be to put student-driven activities online and review the key points of the course in the face-to-face environment.

Isolation. The majority of faculty participants including Instructors B, C, D, E, G, and J experienced isolation during the course design and development process. As Instructor B shared the experience, "I do it myself. I don't even have anybody looking over my shoulder to say, this is, this is what you should do." The participant explained the process as challenging since there was no background in course development. Instructor C developed the blended course by plagiarizing from other faculty and adding in real work cases in order to increase student engagement. Overtime, the participant learned through trial and error. Instructor C reported never having academic questions but required technology support. When asked if there was any support for designing the course in a more integrated fashion for the face-to-face and blended students, the instructor shared that he did it himself and separated the two course sections as they were two different courses, "The blend course is way different than the online course, than the in-class course….Two different websites. Two different sign-ins. It didn't work the way they did it. It just was horrendous." Thus, in making the experience separate for the students, the blended students received the same lecture organized to be in-line with the weekly readings. The blended students received different assignments than the face-to-face students. Instructor C found separating the two student populations within the online portion of the course section to be more effective, "They're made a lot better. They don't interact." Instructor D's experience included converting an online course into a blended format. While Instructor A's experience within the same academic department was more

of an upfront team approach, Instructor D's experience was more isolated and "rocky at times frankly." The participant perceived support would have been there if sought out. Similarly, Instructor E's experience was in converting an online course to a blended format. The participant had expressed great concern for the lack of institutional support and oversight and explained, "they don't give you an instructional manual to, you know, to be an adjunct….It's like here's the class have fun." Instructor G converted a face-to-face course to blended and reported the largest change adding online discussion. The participant did add online video course lectures over time and tried to meet the same pedagogical outcomes by "replicating to a certain extent what would have been traditionally in the classroom online." Instructor M's course was delivered to her developed. Instructor J described the course design approach as keeping to the original face-to-face and not altering anything. The participant did add online discussions where students could discuss amongst themselves. Instructor J confirmed that intentional planning for the online environment in blended courses was lacking. Basically, a common approach was to provide recorded lectures for blended students to watch on their own time. The level of interaction and engagement was minimal.

Course improvement. In terms of the ability to modify blended courses, faculty perceptions and experiences differed. Instructor D had suggestions for course improvement and did not seem to feel as though adjunct faculty could influence or participate in course improvement efforts. Instructor C shared, "Uh, no. The, the classroom is the classroom. And online is all canned." The participants stated that synchronous aspects could not be added to the blended course but when questioned about that changed to admitting there was a synchronous aspect but that it was not exploited.

With regard to the participant's feeling about the student experience in the blended course, the following was shared: "And yeah, it's sad. I mean, I, it, it's a very different experience for the class, the week they're in class, whereas the weeks they're not." The sense of isolation was again apparent when Instructor C did not know who course improvement feedback would be provided to and that "no one ever asked so I just did it….No one ever asked me." With regard to modifying content, Instructor C decided to bring in real-world cases to supplement the textbook. Instructor C's response showed a lack of engagement between faculty and the institution. Conversely, Instructor B provided feedback to administration when the original blended format of the course using web conferencing technology for synchronous sessions was found to be too challenging. A case was presented to and accepted by administration to eliminate synchronous sessions and schedule one week online and the next week face-to-face. The motivation for the course modification resulted from frustration with cohort student chatting and disruption during the synchronous sessions. One must wonder if the knowledge and application of alternative instructional strategies would have resolved the concern without altering the students' experience. Instructor A had taught for the institution for years and was aware of support resources. The level of permission granted allowed the participant to add course materials as needed. Otherwise, the participant worked closely with the IT group to modify items such as quizzes. Instructor E had been involved in the initial course development for the online and blended version of the course. Thus, the participant experienced flexibility in modifying the course whether it was working with course designers to make adjustments or building in resources and experiences outside of the LMS. Instructor E explained, "So, there was a lot more freedom in the blended class

to you know do some different things, and, and use different techniques and let students explore." Instructor E emphasized the benefit of the blended learning model for its flexibility especially if weather dictated moving class online. As an instructor who began teaching online and who works with and was passionate about technology, Instructor E was self-motivated to experiment and learn about using technology effectively in blended courses. As a faculty member with less teaching experience, Instructor M was more challenged in simply knowing if a folder could be created in the course or if faculty had permission or rights to upload additional material. Once the participant connected with a resource on this, the support experience was noted as positive.

Faculty participants' experience with institutional support varied with regard to course design and development. Some faculty collaborated with others on the development of the blended course while some faculty were left on their own. When a full-time or lead faculty member engaged with the faculty participant in the course development, the experience was reported as positive. Those faculty participants who had developed relationships within the academic department and blended learning support group were more satisfied than those who did not and also felt more empowered to contribute to the improvement of the course. With regard to general technical support, the majority of the faculty participants were aware of the resources available and reported positive experiences.

Faculty advice. During the interviews, faculty were asked what if any advice they would offer to administration and new blended learning faculty related to Berge's (1995) role categories. In terms of institutional resources, Instructors A and B were looking to the institution to provide more support and resources including blended

learning support staff. Support for the development and building out of the course in the LMS that would result in saved time for faculty was noted by Instructor B. The participant experienced a more developed course delivered to faculty at another institution. Instructor B advised the institution to offer blended learning training courses for faculty before they design, develop, or instruct a blended course.

With regard to dual registration, Instructor C advised the institution to do away with it because of the challenge of managing the two course sections together:

> Separation of two courses. Don't do blended courses at the same time. Yeah. It's two different courses. It's two different workloads and if you spend a lot of time with it. If I doubled the time I spent, if I double the time I spent with in class students and be able to be with the blend people, their class would be better.

This could be due to Instructor C treating the two sections as separate and a lack of knowledge and support on integrating the two sections in order to provide a cohesive and blended student experience.

Faculty participants provided advice based on their perception and experience related to Berge's (1995) faculty roles: pedagogical, social, managerial, and technological. The advice explored below seemed to be prompted by the constraints and opportunities afforded by the dual registration model in which faculty experienced limited resources and support in blending not only a face-to-face and online environment for the blended students, but also blending a fully face-to-face course section with a blended course section.

Pedagogical role. Based upon faculty participants' perception and experience, they were asked to provide advice for new faculty who would be designing and teaching

in a blended learning environment as well as to the administration. The findings indicate that there were constraints and opportunities facing faculty which influenced their perception of their role and experience. The advice offered was, therefore, in consideration of these constraints and opportunities.

With regard to course conversion, Instructors A, B, C, D, E, F, G, J, and K emphasized the importance of early preparation and course planning. Based on the limited amount of institutional support and training, faculty participants focused on other faculty being the best potential resource in seeking assistance for course conversion and planning. Faculty participants also recommended that new faculty reach out and work closely with available instructional or course designers. Instructor A suggested beginning with an understanding of the institutional goals for the blended experience. For example, faculty should look at what the institution is suggesting or requiring for course materials and the course approach for both the face-to-face and blended students to assist in determining what to put online and what to focus on in the face-to-face classroom. A repeated theme on advice for new faculty was dedicating time upfront for course preparation and planning. In addition to course preparation and planning in order to balance face-to-face and online workload, Instructor B advised faculty to start slowly and build as you learn and time goes on. Instructor C saw planning as the most important advice for new faculty because "You cannot serially work a blended course." When course planning, Instructor C emphasized ensuring anything online was challenging for students and Instructor D emphasized considering the calendar and length of class. Instructors E and H stressed focus on the structure of the online environment because as Instructor E explained, "you have to think more about what that looks like way in

advance. You can't do it you know in a moment" and Instructor H advised to structure content into small chunks and keep videos short because of the students' short attention span. Instructor E suggested new faculty connect with "people who have experience setting up or doing course design in a technology environment. Um. Those would be the people that I would want to reach out to." Instructor E's response showed the importance of working with experienced peers and instructional design resources for the design and development of blended courses. With respect to instructional designers, Instructor M had a great experience with them and Instructor K stated, "The instructional designers are really key to how effective your course is going to be. Instructor G expressed the most important piece of advice for new faculty: "I would say figure out what you think is the most important outcome for your students and how will that best be achieved." Faculty participants learned a great deal through trial and error experiences. As indicated in their advice to new faculty, blended learning is complex and requires forethought in planning for design and development. There are multiple areas in which faculty participants offered advice, which supports the notion of training and development for new faculty prior to designing, developing, and instructing in blended learning environments. New faculty were repeatedly advised to plan upfront and engage instructional design resources for support.

With a focus on teaching in a blended learning environment, faculty participants were asked to provide advice to new faculty. Advice offered was related to being present and attentive to all students, setting clear expectations, engaging students and providing strong feedback, blending modalities, and seeking training. With regard to being present, Instructor A advised faculty to pay attention to the blended students during the live

sessions. Instructor J stated the most important advice as, "The most important thing is just be available, you know, the standard response time is 24 hours to any student interaction. When you let them linger they get mad." Both Instructors A and G emphasized the importance of setting clear expectations up front with students to avoid misunderstandings or issues. Instructor G noted that "the unfortunate thing about the online or the blended part of the class is that it becomes very vague of when class happens" and that without setting student expectations "as the professor always felt like I had to be on my computer and checking and giving instant feedback." Instructors D, E, and F highlighted the importance of engagement. In providing advice, Instructor D noted getting remote blended students involved through varied activities such as virtual hands-on experiences because it assists in knowing if students are progressing, "I don't really put a lot of stock into a lot of the quizzes and exams. I never feel as confident in a student's performance that is reported through the learning system until I've seen how they write and how they think." Instructor E advised considering whether the faculty are coming from a face-to-face or online environment to the blended environment because perceptions could impact instructional approaches and "because it's online it doesn't mean that you can't care about people. It doesn't mean that you can't interact with people. Just the way that you do it is different." Instructor E's response is key for the institution to understand what faculty bring to the table in terms of their experience and knowledge. And that training and development should build upon that experience and knowledge. Instructor F offered online discussions as a means to engage and interact with students and to provide feedback along the way. Instructor C advised new faculty to provide strong feedback to students, and "the more specific you can be, the better."

Instructor K offered, “Think twice then speak once, be good and light.” Instructors B, C, and K spoke to the two modalities relating to each other. Instructor B stated, “Obviously, have the classroom experience relate to what’s online….I would say, in a, in a blended environment, that would be extremely important.” Instructor C shared, “You gotta make sure that whatever you have on that website, uh, makes sense, and then it kind of ties to the book….Because that’s, that’s major in this particular environment.” Instructor G and I advised new faculty to seek out training. Instructor F emphasized training on “potential technology that you have at your fingertips.” Instructor M emphasized a strong live class delivery and for new faculty to do “whatever you can do to get confident in the Adobe Connect will make um, us faculty, us faculty more adept at switching between the classroom and the online.”

As has been noted, early course planning and preparation as well as setting clear student expectations were emphasized with regard to advice on course design and development and teaching in blended learning environments. Blended learning was noted as complex with a required time commitment to design, develop, and plan instruction. Faculty were advised to ensure the face-to-face and online environments related to one another. Faculty were advised to consider the course goals, calendar, and student workload in each modality when designing and developing a blended course. Further, online environments were noted as benefiting from an organized structure. An important focus repeated was engagement. Faculty were advised to engage with all students and not to forget the blended students who were online. Faculty were advised to incorporate varying means of engagement with course resources as well as with and between students. In order to increase the likelihood of engagement, faculty were

advised to implement discussions and to respond timely in providing feedback to students. When teaching in a blended learning environment, faculty were advised to learn about the technology that would assist with the achievement of course objectives.

Social role. Faculty participants were asked what advice they would offer new blended learning faculty for creating a safe space which fosters engagement and interaction. The findings indicate that there were constraints and opportunities facing faculty which influenced their perception of the social role in blended learning environments. During the interviews, faculty participants elaborated least about the social role. Faculty participants were not equipped with instructional strategies for fostering community online, so minimal online engagement occurred in the majority of faculty participants' blended courses. Constrained views of creating community online impacted pedagogical decisions related to interaction and engagement.

A theme raised by Instructors A, B, J, and K related to the social role was the idea of faculty being available and attentive to students through positive and professional means. Instructor A advised new faculty to be proactive through communication in order to address the social role within blended learning environments: "Don't wait for the student to contact you…reach out and keep them engaged." Instructor B advised new faculty to be positive and be subtle in challenging students. One strategy offered was to deliver tough messages or critical feedback through the sandwich approach, which was to begin by pointing out a positive, provide critical feedback, and end with encouragement. Instructor J advised new faculty to be available and attentive to the students. While being attentive to students, Instructor K emphasized maintaining behavior as a professional instructor. Instructors F and G advised on upfront planning for intentional interaction in

order to create a sense of community through course activities. Instructor F suggested group work as it "does help build those kinds of bonds within the class to start with maybe, if they don't know each other well, so they can start to talk to each other." Additional suggestions were to assign projects for students to work together on and have formal class discussions for "having kind of a community feel where they talk to each other rather than just passively receiving information." When Instructor G reflected on experience, video synchronous chats were raised as a way to build community and something the participant wished had been done in his course. The participant perceived small group discussions to be beneficial in building community "that hopefully would continue beyond the class." Instructor M made the point that faculty's approach to creating community through the social role is "a very personal thing…I may form relationships…joke around with the students…I guess people's personalities will come through."

In summary, not all faculty gave attention and advice to the social role. Faculty participants speaking about the social role highlighted professionalism and challenging students in encouraging and positive ways. New faculty were advised to be proactive in student outreach and be available and attentive toward students. Strategies that faculty participants recommended included small group work and discussions either through video chat, in-person, or through online discussion forums in order to foster a community of learning.

*Managerial role***.** Faculty participants focused much on the managerial role as constraints challenged faculty in balancing face-to-face and online environments effectively. The LMS was a major focus for faculty participants when sharing advice for

new faculty. Instructors A, E, F, and J highlighted the role of the LMS in managing blended courses. Instructors A, E, and F emphasized gaining skill with the LMS because as Instructor E pointed there is a large time commitment in creating a well-presented and structured course online. LMS skill being important for faculty's managerial and technological role. Instructor F recommended new faculty view the course within the LMS from the student perspective to ensure everything was available. Instructor G emphasized setting clear student expectations for the online environment and grading. Instructor M acknowledged that the recording of the live classroom may alter how faculty approach and manage in-class activities and interactions in that you may lose "a little bit of informality in your face-to-face" because faculty may "get a little self-conscious." In comparison, online courses are "very rigid…your personalities are not as, um, as uh, easy to come across, and you're not giving it, um, so much of yourself." With regard to the live classroom, Instructor D offered advice to keep an eye on the blended students through the web conferencing application to try to "cultivate the discussion and learning in person" because "they are typically substantially less responsive." The importance of over-communicating to ensure students receive announcements and important information was made by Instructor H. Instructor K didn't perceive there to be much difference in the way faculty organize and manage a blended course versus a face-to-face course, but pointed out that communication is improved by the LMS in that it provides grading results to students "fairly quickly."

When advising faculty on the managerial aspects of blended courses, the usefulness of the LMS was highlighted. Time commitment was noted as high for providing an organized course site that was structured for clear presentation of

information for students. It was highly advised that faculty become adept in the functionality of the LMS to ensure items are set up and executed properly. Faculty were advised to over-communicate with their students and to cultivate engagement through class discussions. A managerial benefit of the LMS was the ability to turn around grades and feedback quickly.

Technological role. Based on blended course experience with institutional support and available resources related to technology, faculty offered varying advice to new faculty and the institution's administration. Instructor C made the point that technology decisions are driven by the institution. One theme noted by instructors A, C, H, J, and K was the need to embrace technology. Instructor A pointed out that students may be unfamiliar with technology so it would behoove faculty to pay attention to the functionality of technology to avoid issues. Instructor H advised faculty to not be afraid of technology and to just "have a go" at it "because it's the future, and it's what students are expecting these days." And as Instructor J explained, "You have to use technology. There is no alternative." Instructor K advised new faculty to do what they needed to do in order to become comfortable and skilled with technology whether it was an online course or shadowing another faculty member who had taught the course before. Otherwise, faculty were "not going to be successful." Instructors B and F advised new faculty to seek out technical support and experienced resources immediately if there are issues and as Instructor B stated, "hang on to their coattails." Instructor B noted institutional training and support in need of improvement. Instructors D and G advised new faculty to have the right technology resources to support instruction and be clear on the purpose for selecting one technology over another. Additionally, faculty were

advised to not underestimate the time commitment for learning how to use the technology in order to, as Instructor D noted, "maintain a reasonably equivalent experience between the online students and the on-campus students." Instructor M made the point that facilitation of communication through technology makes communication more frequent and easier. Thus, faculty feel as though "you are always on with blended and online." Advice offered was to "get your mobile phone, um, configured as soon as possible, so that you can respond from wherever you are" and to "keep your computer up to date with all the live classroom apps" and make sure you understand how to use the web conferencing technology.

Summing up, technology use was noted as necessary and faculty were advised to embrace technology as there is no longer a choice in whether you use technology or not. Again, the time commitment being substantial was highlighted. Advice was offered to plan time for selecting technology that would align with a particular use for achieving a course goal and to become knowledgeable in the technology's functionality. This was emphasized as important for a successful course experience. Additionally, faculty were encouraged to connect with experienced individuals for support. As technology provides a means to connect at any time, faculty were advised to be accessible through mobile ways and to over-communicate with their students.

Chapter V: Conclusions

The previous chapter outlined the study's findings related to perceptions and experiences of faculty management of shifting roles in a blended learning environment. As Kaleta et al. (2007) established, blended learning environments require faculty to take on familiar roles and learn new ones including facilitator, instructional designer, community builder, time-manager, and technology support. Kaleta et al. (2007) based their research on Rogers' (1995) diffusion of innovation theory and Berge's (1995) Role Categories Conceptual Framework. This study builds upon previous research (Bawane & Spector, 2009; Liu et al., 2005; Kaleta et al., 2007; Wepner et al., 2003) by examining the perceptions and experiences of both full-time and adjunct faculty related to Berge's (1995) role categories: pedagogical; social; managerial; and technological. This chapter will reflect on the findings of this single case study that examined administrative and faculty perceptions and experiences with blended learning at one institution of higher education in New England and address my main research question, *how do faculty manage the shifting roles required of them in blended learning environments?* I will then discuss possible implications of this study related to a proposed model for managing faculty roles in a blended learning environment. This chapter will conclude with suggestions on opportunities for the direction of future research.

This study confirms Berge's (1995) Role Categories of pedagogical, social, managerial, and technological and its use for organizing and analyzing faculty experiences designing and teaching blended learning. Findings of this study fill the gap from where Berge's (1995) Role Categories Conceptual framework leaves off at

identification and organization of faculty roles and assists in understanding how faculty manage shifting roles in blended learning environments. A unique dispositional outlook toward technology and blended learning is formed by faculty perception. Faculty's perception is shaped by attitudes, beliefs, behaviors, and values that evolve through education and experience. Pedagogical views are influenced and shaped by faculty's perception, which determines how they prioritize and manage the social, managerial, and technological roles. How faculty view themselves determines their approach and who they select to collaborate with for design, development, and instruction of blended learning.

Reflection on Major Findings

Constraints and opportunities emerged from the data which illustrated impact upon faculty perception and management of pedagogical, social, managerial, and technological roles. The constraints related to both intrinsic and extrinsic factors were identified that influenced the faculty perception of and experience with blended learning environments: dispositional and attitudinal; blended format advantages and disadvantages; and blended learning knowledge and training. At the same time these intrinsic and extrinsic factors constrained faculty, opportunities came from those constraints. Opportunities arose for the institution to reposition goals and benefits for blended learning and to develop and support faculty.

Faculty dispositions. Faculty dispositions were the influencing factor in filling the gap between identifying faculty roles and effectively performing in those roles. In order to perform effectively, faculty must have an opportunity to recognize how their perceptions influence the development and instruction of blended courses. Given that

faculty shared intrinsic motivators such as their personal feelings of and reasons for teaching one could make the argument that faculty are open to learning. Faculty attitudes toward and perceptions of blended learning represented a dispositional outlook that impacted the manner in which each faculty member approached the roles required of him or her in blended learning environments. Perception envelops the pedagogical role necessary to create effective blended learning.

Blended learning preparedness. A lack of emphasis on assisting faculty to understand pedagogy and its application in technology environments is a major concern and can negatively impact students' experience and learning. A major finding of this case study was revealed through answers to all of the sub-research questions. Faculty participants lacked knowledge of understanding the pedagogical benefits and possibilities of blended learning. The advantage of blended learning is to maximize the potential of both learning modalities. However, the blended learning advantage did not surface in discussions with faculty. This illustrates the lack of faculty awareness which limited their blended learning preparedness.

Thus, a logical conclusion is that faculty managing their shifting roles was not driven by pedagogical considerations, but rather decisions were made based on constraints (i.e., dual registration, perception of students, perceptions of roles, lack of training, technical issues, and lack of pedagogical knowledge). The faculty perception of why blended learning was introduced stemmed from a business need rather than from a teaching and learning goal; therefore, the current delivery of blended is limited (Graham, 2006).

Educator preparedness. While faculty experience with teaching varied, it did not indicate whether a faculty member was more knowledgeable in pedagogy and effective teaching and learning strategies. However, Cook et al. (2009) noted, full-time faculty experience a lack of training similar to that of an adjunct faculty member. It is important to note that some adjunct faculty have an opportunity to experience various blended learning formats teaching at multiple institutions. This allows adjunct faculty to be more prepared if training is indeed lacking.

Dual registration. The dual registration structure implemented as a business model to address low enrollment in face-to-face and blended course sections increased the level of complexity for faculty. Not only did faculty have to manage a blended course section, they also had to determine how to manage both face-to-face and blended students on the same class roster. While faculty participants in this study faced major challenges managing synchronization of face-to-face and blended course sections on the same class roster, the future of education will see the elimination of separateness between modalities as learning will naturally take place at different times and places. All learning will be a blend with no distinction.

Institutional commitment. An underlying contributor to the lack of blended learning resources was the institutional commitment and approach to supporting blended learning. The institution provided robust resources including instructional and course designers to support online courses and programs, although, the blended learning resources were not equivalent. While the institution used the online course content when available, the pedagogical and instructional support for developing the blended course was left in the hands of the faculty who were inexperienced in blended learning.

Institutions adopting blended learning should strongly consider investing in the infrastructure to fully support faculty responsible for student learning.

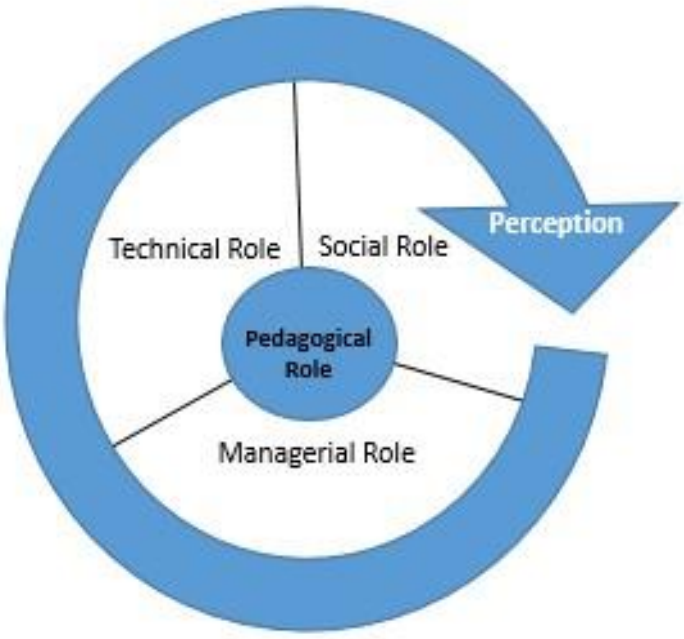
Assessment of student learning. A major concern emerging from the findings was the lack of formalized student learning assessment. Student learning assessment data is required to inform continuous improvement based on how and where students learn. Findings showed that faculty were not engaged in discussions about whether student learning data were collected for review of the achievement of student learning outcomes which would ultimately inform curriculum and instruction improvement.

Managing faculty roles. Faculty approach to course design, management, and instruction was driven by perceptions of education, blended and online learning, and technology. Their existing knowledge base and experience shaped by these perceptions was lacking in the areas of pedagogy, blended learning, and outcomes assessment. Pedagogical beliefs on teaching practices is what effects real change (Owens, 2012). Additional drivers of shifting faculty roles include perception and availability of resources and support and student needs. If institutions want to foster the increased use of online learning environments, they must first recognize the presence of perception. Institutions must next meet faculty where they are and lead them through a process of reflection for the self-acknowledgement of perceptions in order to situate how pedagogy and student learning can assist in the evolution of these perceptions. Recognition of faculty biases utilizing a blended learning environment provides a starting point in a willingness to learn. The majority of faculty are subject matter experts but not pedagogical agents. Therefore, institutions of higher learning may consider a focus on faculty's subject expertise and surround them with expert resources in design,

development, and assessment in order to develop instructionally sound learning experiences. Faculty need both a working knowledge of technologies and the underpinning pedagogical design of each (Owens, 2012). In order to assist faculty and institutions of higher education with the management of faculty roles in blended learning environments, a new model is proposed below to position faculty well in managing the different roles they take on.

Figure 1

Model for Managing Faculty Roles



Faculty are the primary decision-makers for pedagogy. Institutions need a model to assist in informing initiatives, enhancing training and development, and guiding the maximization of faculty expertise in the design, development, and instruction of blended learning environments. The Model for Managing Faculty Roles presented establishes a framework for introducing faculty to blended learning initiated by self-acknowledgement

of perceptions. In an attempt to shape and evolve faculty perception, institutions can focus on pedagogy and drive conversations through a focus on student learning and assessment. Evidence of student learning or lack thereof drives decisions on curriculum development, improvement, and instruction. The majority of faculty participants in this study failed to demonstrate knowledge of pedagogy and teaching and learning theories and best practices. The absence of such knowledge impacted the ways in which faculty approached and performed in blended learning environments. The faculty participants who thought about student learning and embraced technology had more positive perceptions of blended learning and interactions with blended students. This model serves to assist faculty and institutions of higher education with maximizing the benefits of faculty involvement in blended learning and addressing the needs of faculty in support of shifting roles in relation to the use of information and communications technology.

Findings from this study are organized around four categories: faculty disposition, pedagogy, assessment of student learning, and institutional commitment. Blended learning instruction should not be built on the limitations of a faculty member. Institutions must examine the effective use of faculty and determine which faculty roles can be unbundled and supported by institutional resources such as in the areas of academic technology, learning resources, instructional design, course production and technical support. In order to manage shifting roles in blended learning environments effectively, faculty must first be provided an opportunity for guided self-reflection whereby they can acknowledge attitudes, beliefs, behaviors, and values they have toward education, technology, students, and blended and online learning environments. A willingness and ability for faculty to learn and change is critical (Kaleta et al., 2007).

Once faculty are allowed to gain self-understanding especially in relation to their role as subject matter experts, an introduction of pedagogy can begin through an intentional formal training and development program. Institutions are recommended to recognize development of faculty as an opportunity for ongoing evaluation and conversation driven by evidence of student learning. Establishing a base knowledge of pedagogy will provide a foundation for faculty to explore application related to social, managerial, and technological contexts in face-to-face and online learning environments. Certainly, faculty training and development must include positioning technology as a means to facilitate learning opportunities in which pedagogy is applied. Technology training should focus not only on functionality but potential learning applications. Institutions are recommended to incorporate an element of peer mentoring and collaboration into faculty training and development programs. Faculty appreciate and are most open to learning from and with their peers. Both faculty and institutions benefit from assessment of student learning. Institutions are recommended to develop a formal learning outcomes assessment framework to guide the collection, analysis, and reporting of student outcomes assessment data. Institutions must ask the question of how will learning be measured and assessed and how will assessment data guide evaluation and continuous improvement. Equally important, an infrastructure to facilitate the implementation of an assessment framework can take advantage of technology for benefiting automation and scalability. Thus, institutions will be well-positioned to demonstrate to accreditors how academic programs are preparing students to learn and meet the outcomes established by the institution. Institutional effectiveness is informed by intentional assessment and evaluation practices at the institutional, program, and course levels. Unquestionably,

institutional commitment is necessary in all these respects. As future learning may inherently assume "blending" learning environments, technologies and students, institutions are wise to invest in teaching and learning resources supporting faculty enveloped by assessment and evaluation at all levels. There is an opportunity for institutions to consider standards in order to establish and maintain both faculty and student expectations and consistent experiences. The extent to which and where standard expectations should be established is an important conversation for administration and faculty to have.

Implications

In consideration of the evidence presented in this single case study, institutions of higher education including the case site can learn from these faculty experiences and recognize opportunities for faculty training, development, and support. The quality of blended learning cannot be improved when faculty experience gaps in pedagogy and technology. The complexity of blended learning requires faculty to acquire new skills, resources, and support. The findings in this single case study show the importance for administrators to learn more about faculty, their perceptions, and experiences with education, students, technology, and blended learning in order to meet faculty needs for support and development. Furthermore, institutions of higher education can consider the role that formal evaluation and learning outcomes assessment efforts can play in the continuous improvement of curriculum, instructional practices and development, and with accountability to accreditors. It is critical to determine the need for and effective use of resources to support blended learning environments in order to ultimately improve student outcomes.

Porter et al. (2014) asserted that institutions of higher education must develop and implement an integrated blended learning strategy. Blended learning advocates should be identified throughout the institution at multiple levels in order to facilitate effective implementation through commitment and shared vision (Porter et al., 2014). Similar to Porter et al. (2014), this study's findings indicate the need to develop an infrastructure that provides formal technical and pedagogical training and ongoing support for faculty. While the institution supports academic freedom to define blended learning at the program level, there is an opportunity for consistent communication and training for faculty at the institutional level. Faculty experiences with blended learning will improve when provided with upfront preparedness and formal training balanced with formal and informal ongoing peer support (Dolan, 2011; King & Arnold, 2012) The findings from this study indicate a desire and need for a proactive training effort for faculty in blended learning pedagogy. In addition, this study identified the need for on-demand technical support for both faculty and students so as to not divert attention from learning.

The results of this study suggest that faculty developers include peer collaboration and mentoring. As faculty become more knowledgeable about pedagogy, blended learning and educational technology uses, a shift in the faculty dispositional outlook should occur that would promote a shift from a teacher-oriented toward a student-oriented environment. This study also revealed the need for faculty support from not only educational technologists but instructional designers and knowledgeable full-time faculty within academic departments in the development of blended courses.

In order for course and student learning improvement to occur, institutions of higher education would benefit from formalizing an evaluation process that identifies

how the blend is working from different perspectives including student learning assessment. Information gathered from such a process can inform how best to maximize the benefits of faculty involvement in blended learning. Unquestionably, it is the responsibility of higher education institutions to support all faculty especially with respect to training and professional development since they are a valuable asset contributing to an institution's mission.

Direction for Future Research

This study focused on the perceptions and experiences of two full-time and nine adjunct faculty participants and one blended learning administrator. It was necessary to gain a clear understanding of the challenges faculty face in managing the shifting roles blended learning environments necessitate due to the utilization of information and communications technology, media, and other educational technologies. This study's findings assisted in identifying institutional level resources to supplement and support the effective design, development, and instruction of blended learning courses and programs. This research can be expanded through the application of the Model for Managing Faculty Roles. This model can assist with attending to and changing faculty perceptions through self-reflection and assessment practices that inform self-development to ensure application of instructionally relevant pedagogy. Researchers can look to apply the Model for Managing Faculty Roles for development of faculty in different learning environment contexts. The perspective of the academic department administration was missing from this study. Further investigation into the various levels of institutions is needed to uncover potential biases that may be influencing development of blended learning. An additional opportunity for researchers would be to examine institutional

evaluation and assessment practices and how data informs continuous improvement of blended learning curriculum and instructional practices.

Another future research opportunity would be to observe the interaction in the online portion of blended courses. This would aid in understanding if faculty perceptions align with their experiences in the ways they manage the online environment within blended learning courses. It would also provide another view into faculty and student interactions and to what extent if any blended learning has changed pedagogical strategies.

The significance and relevancy of this study's findings is important for higher education faculty, instructional support staff, administrators, and educational researchers. Findings can inform institutional policy and practice around assessment and support infrastructures and resources, blended learning delivery models, and faculty expectations as well as the focus, content, and format of faculty professional development.

Appendix A: Invitation to Participate

Dear Named person,

I am a doctoral candidate in the Southern New Hampshire University Educational Leadership Doctoral program. I am writing to ask if you would be prepared to take part in a web-based survey questionnaire and three one hour interviews concerning your involvement and experiences with blended learning and hybrid courses.

The purpose of this qualitative case study is to investigate faculty management of shifting roles in blended learning environments.

During our first meeting, I will give more details about the types of interviews, the questions to be asked and our assurances to you. There is a list of these assurances at the end of this email. I hope that this will be a useful piece of research which will inform my work as a researcher. I would very much appreciate your help.

Regards
Kimberly Blanchette, k.blanchette1@snhu.edu

Assurances to interviewees:
If you agree to an individual interview, anything you tell me will be treated in confidence.
In all instances:
* I will respect your right to decide not to answer any questions which I may ask you, and without explanation.
* I respect your right to withdraw from the interview at any time.
* I may wish to use quotes, but would only quote you under a pseudonym and with your express permission.

Appendix B: Informed Consent Agreement

Project Title: Investigating Faculty Management of Shifting Roles in Blended Learning Environments

Please read this consent agreement carefully before you decide to participate in the study.

Purpose of the research study: The purpose of this study is to investigate faculty, including full-time and adjunct, experiences with and management of shifting roles in blended learning. This study seeks to understand how best to maximize the benefits of faculty involvement in blended learning. In addition, this study may uncover needs for supporting the shifting roles in blended learning in relation to the use of information and communications technology.

What you will do in the study: As a participant in the study, you will be given details regarding the research and an opportunity to consent. You will be interviewed by a researcher in regards to your involvement and experience with blended learning. The results will be used to determine effective components of a community leadership program or academy.

Time required: The study will commence with a web-based survey questionnaire which should take about 15 to 30 minutes of your time. Additionally, you may be asked to participate in three one hour individual interviews.

Risks: There are no anticipated risks in this study.

Benefits: There are no direct benefits to you for participating in this research study. The report from this study will be made available to you.

Confidentiality: Participant's information will be kept private and confidential. The data will be collected consisting of recorded text and shared documents only. Your information will be assigned a code number. The list connecting your name to this code will be kept in a locked file. When the study is completed and the data have been analyzed, this list will be destroyed. Your name will not be used in any report.

Voluntary participation: Your participation in the study is completely voluntary.

IRB-SBS Office Use Only		
Protocol #		
Approved	from:	to:
SBS Staff		

Right to withdraw from the study: You have the right to withdraw from the study at any time without penalty.

How to withdraw from the study: To withdraw from the study, simply notify Kimberly Blanchette at k.blanchette1@snhu.edu or call the office at (603) 314-7944.

If you have questions about the study or your rights in the study, please contact Kimberly Blanchette, k.blanchette1@snhu.edu.

Kimberly Blanchette
Southern New Hampshire University
33 South Commercial Street
Manchester, NH 03106
Phone (603) 314-7944

Agreement:

I agree to participate in this study (please check one): YES____ NO___

Participant's Name: _

Signature:_____Date: _____

Researcher's Name: _

Signature:_____Date: _____

You will receive a copy of this form for your records.

IRB-SBS Office Use Only		
Protocol #		
Approved	from:	to:
SBS Staff		

Appendix C: Blended/Hybrid Survey - Kaleta et al. (2007)

Project Title: Investigating Faculty Management of Shifting Roles in Blended Learning Environments

Instructions

Filling out this survey indicates that I am at least 18-years-old and that I am giving my informed consent to be a participant in this study.

If you wish to keep a copy of this survey for your records, print the survey before you submit the results. THANK YOU!

Demographics

Please check or fill in the appropriate information in response to the following questions. This information will be used for background information only and will not be used to identify you in the final report.

1.Your Confidential Code:

2. Most convenient days and times to contact you between today's date to January 30th for the first follow-up interview. (Please allow for a 60 minute time slot for the interview.)

3.I have read the informed consent:

Yes
No

4.May I tape-record the follow-up interview(s)?

Yes
No

5.Your Gender:

Male
Female

6.College/University:

7.Department/School:

8.Do you also teach face-to-face classes?

Yes
No

9.Do you also teach online classes?

Yes
No

10.Your academic rank:

Professor
Associate Professor
Assistant Professor
Instructor
Lecturer
Adjunct
Other:

11.My age is:

Under 25
25-35
36-45
46-60
61 or older

12.Total number of years you have been teaching:

Less than 1 year
1-3 years
4-5 years
6-9 years
10-15 years
More than 15 years

13.I work:

Part-time
Full-time

14.When did you teach your first blended/hybrid course?

15. Will you be teaching a blended/hybrid course during the January/Spring 2015 semester?

Blended/Hybrid Course Information

Please provide the following information about your most recent blended/hybrid course(s):

16.How many blended/hybrid courses have you taught?

17.Course 1 Name:

18.Course 1: What percent of your course is online?

19.Course 1: How many students are registered in the class?

20.Course 1: Provide 2-3 sentences describing this course.

21.Course 2 Name:

22.Course 2: What percent of your course is online?

23.Course 2: How many students are registered in the class?

24.Course 2: Provide 2-3 sentences describing this course.

25. What course/learning management system are you using to teach your blended/hybrid course(s)?

WebCT
Blackboard
Canvas
Desire2Learn
Moodle
Sakai

Please identify any others:

26. Please check all the tools you commonly use in your blended/hybrid course(s):

(Select all that apply.)
Post course documents online
Asynchronous discussion forums
Quizzes
E-mail
Blogs
Journals
Wikis
Surveys
Synchronous chat
Web conferencing
Video
Audio
Gradebook
Social media (ie. Twitter, Facebook)
Calendars
Other:

27. If possible, please estimate how much time (in hours) you spent developing your hybrid course before you began teaching it.

28. During the development time, what TOP THREE activities consumed most of your time (e.g., reflecting on goals and objectives, developing online activities, learning to manage and facilitate online interaction, connecting online and face-to-face activities, assessment, etc.)? Please explain.

29. About how much more time (percentage) do you estimate it took you to prepare to teach the blended/hybrid course than a face-to-face course for the first time?

Faculty Development Questions

30. Did you participate in a faculty development program to help prepare you to design and teach blended/hybrid courses?

Yes
No

31. If you answered yes to question 29, how important was the training you received on REDESIGNING COURSES for blended/hybrid teaching and learning?

32. How important was the training you received on learning HOW TO TEACH the online component of the course?

33. Do you think that you received the right amount of preparation and training for teaching your first blended/hybrid course? Why or why not?

34. What activities and information benefited you the most?

35. Is there anything you wish you would have known before teaching your first blended/hybrid course? Please explain.

Appendix D: Interview Guide and Protocol - Kaleta et al. (2007)

Date of Interview_____

Name of Participant _____

Institution_____

Department/School_____Year_____

Interviewed by_____

I am interviewing a number of educators and staff at your institution involved with blended learning to find out about their experiences designing, developing, instructing, or supporting blended learning environment. My interest is in learning from your experience.

The information you provide in this interview will be used in the research I am conducting as a doctoral candidate at Southern New Hampshire University. The collected comments, experience and suggestions from all of the participants interviewed will be reviewed and saved by the researcher.

The following overarching research question will be informed by interview questions:

How do faculty manage the shifting roles required of them in blended learning environments?

Informed decisions for how best to maximize faculty involvement and which institutional resources are required for effective blended learning environments may be uncovered through exploring the answers to the overarching research question and following research sub-questions:

1. How do faculty perceive their roles shifting in relation to blended learning?
2. How do faculty experience shifting roles in blended learning environments?
3. How do faculty perceive institutional support and resources impacting the management of shifting roles in blended learning environments?
4. What do faculty identify as important components in blended learning professional development programs?

5. How do educational and instructional support staff perceive faculty management of blended learning environments?

The goal of the interview questions is to effectively evaluate the roles faculty take on and how those roles are managed in blended learning environments:

INTERVIEW GUIDE

Description of the Research Study

Researcher introduces him/herself and explains professional background and interest in Blended learning/hybrid teaching and faculty development.

Script: *Thank you for agreeing to be part of my research study. The purpose of this study is to learn about faculty experiences designing, developing, and teaching blended/hybrid courses that combine face-to-face with online instruction. The information will provide guidance for faculty who want to teach using the blended/hybrid method and to faculty developers who need to provide guidance to these instructors. As explained in the e-mail, the second and third interview will take about an hour. I understand your time is very valuable. I also need your verbal permission to tape the interview for transcription purposes. So* ***may I tape record this interview?*** *As the consent form explains, I will keep your responses confidential. Do you have any questions before we begin?*

Knowledge Stage (Awareness)

1. How long ago did you become aware of the blended/hybrid course format?
2. How did you become aware of the blended/hybrid format? What did you think about it at first?
3. Did you incorporate online teaching activities into your classes prior to teaching your first blended/hybrid course? If so, what were they?

Persuasion Stage (Interest)

4. What led you to consider the possibility of using the hybrid format for **your own** course?
5. What did you hope you could achieve using the blended/hybrid format?

Decision Stage (Evaluation)

6. What were the reasons that finally persuaded you to use the blended/hybrid format?
7. How do you continue to receive information about using and improving the blended/hybrid format?

Script: An instructor needs to take on many roles when teaching a blended/hybrid course. So for the next set of interview questions I will briefly describe four roles and ask you how you

experienced these roles in a blended/hybrid course in comparison to the traditional or online environment. These roles are pedagogical, social, managerial, and technical.

Pedagogical Role: The design and delivery of a variety of *instructional activities* to facilitate student learning (ie. lecture, discussion, group work, assignments). Basically, this is how you developed the course and how you taught it. First I will ask about the design of your course and then how you taught it.

Instructional Design

8. Can you describe your experience converting your course to the blended/hybrid format? IF ALSO TAUGHT ONLINE: How did your experience designing a blended/hybrid course compare to designing an online course?
9. How did you decide what course activities should be presented online versus face-to-face? Please explain some of your online and face-to-face activities.
10. What are the challenges? How do you deal with those challenges?
11. What are the benefits of having both online and face-to-face learning activities? (NOTE: BE SURE TO PROBE ABOUT BOTH ENVIRONMENTS SINCE FACULTY TEND TO FOCUS ON THE NEWER ONLINE ACTIVITIES).
12. What advice would you give to faculty who are converting a traditional course to the blended/hybrid environment?

Teaching

13. How does your role as a teacher in the blended/hybrid course compare or differ with your role as a teacher in the face-to-face classroom? IF ALSO TAUGHT ONLINE: The online classroom?
14. What are the challenges of teaching in the blended/hybrid environment? How did you deal with those challenges?
15. What do you think are the benefits of teaching in a blended/hybrid environment?
16. What advice would you give to new faculty regarding teaching in a blended/hybrid course?

Social Roles: The creation of an *environment* that supports a community of learning. This involves the communication and interaction between you and your students and the students with other members of the course, including group activities.

17. With respect to communication and interaction between you and your students, how does your experience in the hybrid course compare to that in the traditional classroom? IF TAUGHT ONLINE: How does this compare to an online course?
18. What are the challenges? How do you deal with these challenges?
19. With respect to communication and interaction in a blended/hybrid course, what are the benefits of using the blended/hybrid format? PROBE: If you have group activities, how is group communication affected by both online and face-to-face interaction?) IF TAUGHT ONLINE: How does this compare with the communication and interaction in a totally online course?

20. What advice would you give to new faculty regarding creating a learning environment in a blended/hybrid course?

Managerial Role: Managing a blended/hybrid course requires balancing the organization of both the online and face-to-face environments. This includes scheduling class meeting times, reading and responding to student communication and assignments, assessments, deadlines, etc.

21. What was your experience balancing and managing these aspects of instruction in a blended/hybrid course? How did this compare to a traditional course IF TAUGHT ONLINE: An online course?
22. What are the challenges regarding the organization and management of a blended/hybrid course? How did you deal with those challenges
23. Are there some positives about organizing and managing a blended/hybrid course, for example not having all the classes face-to-face and organizing the course content, communication, scheduling, etc.)? IF NEED TO PROBE: Ask how the course management system helped to organize their blended/hybrid course.
24. What advice would you give to faculty regarding organizing and managing a blended/hybrid course?

Technological Role: Using the technology in your class or assisting participants with the technology (such as the computer, course management system, or other technology used in your blended/hybrid course).

25. What did you experience with technology issues with your blended/hybrid course?
26. What are the challenges? How did you deal with those challenges?
27. What advice would you give faculty regarding using the technology in their blended/hybrid course? IF NEED TO PROBE: What advice would you give to those who are apprehensive about using technology or those who are very experienced/or like to use technology?

Implementation Stage (Trial)

28. After teaching blended/hybrid course(s), what would you do differently the next time you teach such a course? Please explain why.

Confirmation Stage (Adoption)

29. NEW FACULTY: Do you plan to teach using the blended/hybrid format again? Why or why not? OR EXPERIENCED FACULTY: Why do you continue to teach using the blended/hybrid format?
30. You gave advice for each of the roles to new faculty. But what is the most important advice you would give colleagues preparing to teach their first blended/hybrid course?

Debriefing (advice for faculty and faculty developers)

31. What could have been provided to you during your faculty development training that would have made the implementation of your hybrid course more efficient and effective?
32. EXPERIENCED FACULTY: Now that you are an experienced blended/hybrid instructor, do you have any additional needs regarding blended/hybrid course design or teaching?
33. Anything else you would like to share that we haven't discussed?

Faculty Development Clarification (if needed)
Can you clarify and explain in more detail what you wrote in the electronic survey you filled out regarding:

a. What do you wish you would have known before teaching a blended/hybrid course.
b. ANY THING ELSE WOULD LIKE CLARIFIED FROM THE SURVEY

Would you mind sharing your syllabus and other course materials/documents that demonstrate student expectations of and your blended/hybrid course approach?

Script: Thank you very much for your time. You shared valuable information that will help both faculty, faculty developers and administrators.

Probing Questions
(Based on Kvale, 1996)

What happened and how did it happen?
How did you feel then?
What did you experience?
What happened in the episode you mentioned?
Could you say something more about that?
Can you give me a more detailed description of what happened?
Do you have any further examples of this?
You mentioned previously something about_____, would you please try and say more about that?

Specific Questions

What did you think then?
How did you react?

Interpreting Questions

You then mean that…
Is it correct that you _ that…
Does the expression_____cover what you have just expressed?

SECOND CONTACT WITH PARTICIPANTS: ONCE ANALYSIS IS DONE

Show participants the synthesis of what they said.

Script: Please review. Do the summary and descriptions accurately reflect your experience? Feel free to make any changes or additions.

1. After reviewing this information, do you have additional advice for other faculty considering the hybrid method?

2. Do you have more advice for faculty developers when training instructors on how to use the hybrid method?

Any other comments you want to make?

References

Akyol, Z., & Garrison, D. (2011). Understanding cognitive presence in an online and blended community of inquiry: Assessing outcomes and processes for deep approaches to learning. *British Journal of Educational Technology*.

Akyol, Z., Garrison, D. R., & Ozden, M. Y. (2009, December). Online and blended communities of inquiry: Exploring the developmental and perceptional differences. *International Review of Research in Open and Distance Learning*, *10*(6).

Allen, E., & Seaman, J. (2011). *Going the distance: Online education in the United States, 2011*. Retrieved from Babson Survey Research Group: http://www.onlinelearningsurvey.com/reports/goingthedistance.pdf

Allen, E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States*. Retrieved from http://www.onlinelearningsurvey.com/reports/changingcourse.pdf

Allen, E., Seaman, J., & Garrett, R. (2007). *Blending in: The extent and promise of blended education in the United States*. Retrieved from Sloan Consortium: http://sloanconsortium.org/publications/survey/pdf/Blending_In.pdf.

Allen, E., Seaman, J., Poulin, R., & Straut, T. T. (2016). *Online report card: Tracking online education in the United States*. Retrieved from Online Learning Consortium: http://onlinelearningsurvey.com/reports/onlinereportcard.pdf

Altheide, D., Coyle, M., DeVriese, K., & Schneider, C. (2013). Emergent qualitative document analysis. In S. N. Hesse-Biber, & P. Leavy (Eds.), *Handbook of emergent methods* (pp. 127-151). New York, NY: Guilford Press.

Anderson, T. (2003, October). Getting the mix right again: An updated and theoretical rationale for interaction. *International Review of Research in Open and Distance Learning*, *4*(2), 1-14.

Andrews, R., & Haythornthwaite, C. (Eds.). (2007). *The sage handbook of e-learning research*. London, England: Sage.

Backhaus, K. (2009, January). Desire for professional development among adjunct business faculty. *Journal of Faculty Development*, *23*(1), 40-47.

Bawane, J., & Spector, J. M. (2009, November). Prioritization of online instructor roles: Implications for competency-based teacher education programs. *Distance Education*, *30*(3), 383-397.

Berge, Z. L. (1995, January-February). Facilitating computer conferencing: Recommendations from the field. *Educational Technology*, *35*(1), 22-30.

Bernard, R. M., Abrami, P. C., Borokhovski, E., Wade, C., Tamim, R. M., Surkes, M. A., & Bethel, E. C. (2009, September). A meta-analysis of three types of interaction treatments in distance education. *Review of Educational Research*, *79*(3), 1243-1289.

Betts, K. (2014, Spring). Factors influencing faculty participation & retention in online & blended education. *Online Journal of Distance Learning Administration*, *17*(1).

Bonk, C. J., & Graham, C. R. (2006). *The handbook of blended learning: Global perspectives, local designs*. [Nook]. Retrieved from www.barnesandnoble.com

Bonk, C. J., Kim, K., & Zeng, T. (2006). Future directions of blended learning in higher education and workplace learning settings. In C. J. Bonk, & C. R. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs* (pp. 528-541). [Nook]. Retrieved from www.barnesandnoble.com

Clayton, K., Blumberg, F., & Auld, D. P. (2010, May). The relationship between motivation, learning strategies and choice of environment whether traditional or including an online component. *British Journal of Educational Technology*, *41*(3), 349-364.

Contingent commitments: Bringing part-time faculty into focus. (2014). Retrieved from https://www.ccsse.org/docs/PTF_Special_Report.pdf

Cook, R. G., Ley, K., Crawford, C., & Warner, A. (2009, January). Motivators and inhibitors for university faculty in distance and e-learning. *British Journal of Educational Technology*, *40*(1), 149-163.

Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Los Angeles, CA: Sage.

Curtis, J. W. (2014). *The employment status of instructional staff members in higher education, fall 2011*. Retrieved from http://www.aaup.org/sites/default/files/files/AAUP-InstrStaff2011-April2014.pdf

Curtis, J. W., & Thornton, S. (2013, Mar-Apr). Here's the news: The annual report on the economic status of the profession, 2012-13. *Academe*, *99*(2), 4-86.

Curtis, J. W., & Thornton, S. (2014, Mar-Apr). Losing focus: The annual report on the economic status of the profession, 2013-14. *Academe*, *100*(2), 4-17. Retrieved from http://www.aaup.org/reports-publications/2013-14salarysurvey

Dalsgaard, C., & Godsk, M. (2007, February). Transforming traditional lectures into problem-based blended learning: Challenges and experiences. *Open Learning*, *22*(1), 29-42.

DeNoyelles, A., Cobb, C., & Lowe, D. (2012, March). Influence of reduced seat time on satisfaction and perception of course development goals: A case study in faculty development. *Journal of Asynchronous Learning Networks*, *16*(2), 85-98.

Delialioglu, O., & Yildirim, Z. (2007, April). Students' perceptions on effective dimensions of interactive learning in a blended learning environment. *Journal of Educational Technology & Society*, *10*(2), 133-146.

Dolan, V. (2011, February). The isolation of online adjunct faculty and its impact on their performance. *International Review of Research in Open and Distance Learning*, *12*(2), 62-77.

Drysdale, J. S., Graham, C. R., Spring, K. J., & Halverson, L. R. (2013). An analysis of research trends in dissertations and theses studying blended learning. *Internet and Higher Education*, *17*, 90-100.

Dziuban, C., Moskal, P., & Hartman, J. (2005). Higher education, blended learning and the generations: Knowledge is power no more. *Research Initiative for Teaching Effectiveness*, 1-17.

Ellis, R. A., Goodyear, P., Prosser, M., & O'Hara, A. (2006, August). How and what university students learn through online and face-to-face discussion: Conceptions, Intentions and approaches. *Journal of Computer Assisted Learning*, *22*(4), 244-256.

Elsenheimer, J. (2006, September). Got tools? The blended learning analysis and design expediter. *Performance Improvement*, *45*(8), 26-30.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes* (2nd ed.). Chicago, IL: The University of Chicago Press.

Fetters, M. L., & Duby, T. G. (2011, February). Faculty development: A stage model matched to blended learning maturation. *Journal of Asynchronous Learning Networks*, *15*(1), 77-86.

Gappa, J. M. (2008, Jul-Aug). Today's majority: Faculty outside the tenure system. *Change: The Magazine of Higher Learning*, *40*(4), 50-54.

Garrison, D. R., Anderson, T., & Archer, W. (*2*000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *Internet and Higher Education*, 2(2-3), 87-105.

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, *7*(2), 95-105.

Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. [Nook]. Retrieved from www.barnesandnoble.com

Georgina, D. A., & Olsen, M. R. (2008). Integration of technology in higher education: A review of faculty self-perceptions. *Internet and Higher Education*, *1*(1), 1-8.

Gerber, M., Grund, S., & Grote, G. (2008, June). Distribute collaboration activities in a blended learning scenario and the effects on learning performance. *Journal of Computer Assisted Learning*, *24*(3), 232-244.

Gill, D. (2009, March/April). Effective blended learning techniques. *Journal of College Teaching & Learning*, *6*(2), 1-14.

Ginsberg, A. P., & Ciabocchi, E. (2014). Growing your own blended faculty: A review of current faculty development practices in traditional, not-for-profit higher education institutions. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning research perspectives: Volume 2*, pp. 208-218). [Nook]. Retrieved from www.barnesandnoble.com

Gordon, N. (2014). *Flexible pedagogies: technology-enhanced learning* [Report]. Retrieved from The Higher Education Academy: http://www.heacademy.ac.uk/resources/detail/flexible-learning/flexiblepedagogies/tech_enhanced_learning/main_report

Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk, & C. R. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs* (pp. 36-52). [Nook]. Retrieved from http://www.barnesandnoble.com

Graham, C. R., Henrie, C. R., & Gibbons, A. S. (2014). Developing models and theory for blended learning research. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning: Research perspectives* , pp. 34-56). New York, NY: Routledge.

Graham, C. R., Woodfield, W., & Buckley, H. J. (2013, July). A framework for institutional adoption and implementation of blended learning in higher education. *Internet and Higher Education*, *18*, 4-14.

Gulley, H. E. (1968). *Discussion, conference, and group process* (2nd ed.). New York, NY: Holt, Rinehart and Winston.

Gutierrez, D., & Russo, S. (2005). Comparing student performance, attitudes and preferences in an introduction to business course: Online, hybrid and traditional delivery methods – who makes the "A" grade? *College Teaching Methods & Styles Journal*, *1*(3), 83-90.

Halverson, L. R., Graham, C. R., Spring, K. J., & Drysdale, J. S. (2012, November). An analysis of high impact scholarship and publication trends in blended learning. *Distance Education*, *33*(3), 381-413.

Halverson, L. R., Graham, C. R., Spring, K. J., Drysdale, J. S., & Henrie, C. R. (*20*14). An analysis of research trends in dissertations and theses studying blended learning. *Internet and Higher Education*, 20, 20-34.

House Committee on Education and the Workforce Democratic Staff. (2014). *The just-in-time-professor: A staff report summarizing eForum responses on the working conditions of*

contingent faculty in higher education. Retrieved from http://democrats.edworkforce.house.gov/sites/democrats.edworkforce.house.gov/files/documents/1.24.14-AdjunctEforumReport.pdf

Hyman, R. T. (1980). *Improving discussion leadership*. New York, NY: Teachers College Press.

ISTE standards for teachers. (2012). Retrieved from http://www.iste.org/standards/standards-for-teachers

Jaffee, D. (2003, April). Virtual transformation: Web-based technology and pedagogical change. *Teaching Sociology*, *31*, 227-236.

Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2014). *NMC horizon report: 2014 higher education edition*. Retrieved from The New Media Consortium: http://www.nmc.org/pdf/2014-nmc-horizon-report-he-EN.pdf

Joosten, T. M., Barth, D., Harness, L., & Weber, N. L. (2014). The impact of instructional development and training for blended teaching on course effectiveness. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning research perspectives: Volume 2*, pp. 190-207). [Nook]. Retrieved from www.barnesandnoble.com

Kaleta, R., Skibba, K., & Joosten, T. (2007). Discovering, designing, and delivering hybrid courses. In A. G. Picciano, & C. D. Dziuban (Eds.), *Blended learning: Research Perspectives* (pp. 111-143). Needham, Ma: Sloan-C.

Kanuka, H., & Conrad, D. (2003). The name of the game: Why "distance education" says it all. *Quarterly Review of Distance Education*, *4*(4), 385-393.

Kaur, M. (2013, October 21). Blended learning - its challenges and future. *Procedia - Social and Behavioral Sciences*, *93*, 612-617. http://dx.doi.org/http://dx.doi.org/10.1016/j.sbspro.2013.09.248

Kim, C., & Baylor, A. L. (2008, April). A virtual change agent: Motivating pre-service teachers to integrate technology in their future classrooms. *Journal of Educational Technology & Society*, *11*(2), 309-321.

King, S. E., & Arnold, K. C. (2012). Blended learning environments in higher education: A case study of how professors make it happen. *Mid-Western Educational Researcher*, *25*(1/2), 44-59.

Landrum, R. E. (2009, Winter). Are there instructional differences between full-time and part-time faculty? *College Teaching*, *57*(1), 23-26.

Lee, R.-A., & Dashew, B. (2011, February). Designed learner interactions in blended course delivery. *Journal of Asynchronous Learning Networks*, *15*(1), 68-76.

Leh, A. S. (2002, March). Action research on hybrid courses and their online communities. *Educational Media International*, *39*(1), 31-38.

Ligorio, M. B., & Loperfido, F. F. (2012). The subjective development through unfolding learning activities. *Cultural-Historical Psychology*, 17-25.

Liu, X., Bonk, C. J., Magjuka, R. J., Lee, S., & Su, B. (2005). Exploring four dimensions of online instructor roles: A program level case study. *Journal of Asynchronous Learning Networks*, *9*(4), 29-48.

Liu, X., & Zhang, L. (2013, Spring). Flexibility at the core: What determines employment of part-time faculty in academia. *Relations Industrielles / Industrial Relations*, *68*(2), 312-339.

Luppicini, R. (2005). A systems definition of educational technology in society. *Educational Technology & Society*, *8*(3), 103-109.

Mason, R. (1991). Moderating educational computer conferencing. *Deosnews*, 1(19), 1-16.

McGee, P., & Reis, A. (2012, June). Blended course design: A synthesis of best practices. *Journal of Asynchronous Learning Networks*, *16*(4), 7-22.

Means, B., Toyama, Y., Murphy, R., & Baki, M. (2013, March). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers College Record*, *115*(3), 1-47.

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies* (ED-04-CO-0040). Washington, DC: Government Printing Office.

Meixner, C., Kruck, S. E., & Madden, L. T. (2010). Inclusion of part-time faculty for the benefit of faculty and students. *College Teaching*, *58*, 141-147. http://dx.doi.org/10.1080/87567555.2010.484032

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Thousand Oaks, CA: Sage.

Moore, M. G. (2013). The theory of transactional distance. In M. G. Moore (Ed.), *Handbook of distance education* (3rd ed., pp. 66-85). Retrieved from http://books.google.com/books

Moskal, P. D., & Cavanagh, T. B. (2014). Scaling blended learning evaluation beyond the university. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning: Research Perspectives*, pp. 34-51). New York, NY: Routledge.

Moskal, P., Dziuban, C., & Hartman, J. (2013, July). Blended learning: A dangerous idea? *Internet and Higher Education*, *18*, 15-23.

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.

Neely, P. W., & Tucker, J. P. (2010, June). Unbundling faculty roles in online distance education programs. *Contemporary Issues in Education Research*, *3*(6), 17-24.

Neely, P. W., & Tucker, J. P. (2010, May). Unbundling faculty roles in online distance education programs. *International Review of Research in Open and Distance Learning*, *11*(2), 20-32.

Ocak, M. A. (2010). Blend or not to blend: A study investigating faculty members' perceptions of blended teaching. *World Journal on Educational Technology*, 2(3), 196-210.

Ocak, M. A. (2011). Why are faculty members not teaching blended courses? Insights from faculty members. *Computers & Education*, *56*(3), 689-699.

Oh, E., & Park, S. (2009, July). How are universities involved in blended instruction? *Journal of Educational Technology & Society*, *12*(3), 327-342.

Osguthorpe, R. T., & Graham, C. R. (2003). Blended learning environments. *Quarterly Review of Distance Education*, *4*(3), 227-233.

Owens, T. (2012). Hitting the nail on the head: The importance of specific staff development for effective blended learning. *Innovations in Education and Teaching International*, *49*(4), 389-400.

Owston, R., Wideman, H., Murphy, J., & Lupshenyuk, D. (2008). Blended teacher professional development: A synthesis of three program evaluations. *Internet and Higher Education*, *11*(3-4), 201-210.

Papanastasiou, E. C., & Angeli, C. (2008, January). Evaluating the use of ICT in education: Psychometric properties of the survey of factors affecting teachers teaching with technology (SFA-T³). *Journal of Educational Technology & Society*, *11*(1), 69-86.

Paris, D. (2013, Summer). The last artisans? Traditional and future faculty roles. *Peer Review*, *15*(3), 17-20.

Picciano, A. G. (2009, April). Blending with purpose: The multimodal model. *Journal of Asynchronous Learning Networks*, *13*(1), 7-18.

Picciano, A. G., Dziuban, C. D., & Graham, C. R. (Eds.). (2014). *Blended learning research perspectives*. New York, NY: Routledge.

Poliscastro, C. (2008). The roles of contemporary faculty, unbundled. *Distance Learning*, *5*(3), 65-70.

Porter, W. W., Graham, C. R., Spring, K. A., & Welch, K. R. (2014). Blended learning in higher education: Institutional adoption and implementation. *Computers & Education*, *75*, 185-195.

Restauri, S. L. (2007). Creating an effective online distance education program using targeted support factors. *TechTrends: Linking Research & Practice to Improve Learning*, *48*(6), 32-39.

Riley, J. E., Gardner, C., Cosgrove, S., Olitsky, N., O'Neil, C., & Du, C. (2014). Implementation of blended learning for the improvement of student learning. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning: Research Perspectives*, pp. 161-172). New York, NY: Routledge.

Rogers, C. B., McIntyre, M., & Jazzar, M. (2010, February). Mentoring adjunct faculty using the cornerstones of effective communication and practice. *Mentoring & Tutoring: Partnership in Learning*, *18*(1), 53-59.

Saldana, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). Thousand Oaks, CA: Sage.

Salomon, G. (2002, March-April). Technology and pedagogy: Why don't we see the promised revolution. *Educational Technology*, *42*(2), 71-75.

Seaman, J. (2009). *Online learning as a strategic asset Volume II: The paradox of faculty voices: Views and experiences with online learning*. Retrieved from Babson Survey Research Group: http://www.babson.edu/Academics/Documents/babson-survey-research-group/online-learning-strategic-asset.pdf

Simonson, M., Schlosser, C., & Hanson, D. (1999). Theory and distance education: A new discussion. *American Journal of Distance Education*, *13*(1), 60-75.

Skibba, K. (2014). Choice does matter: Faculty lessons learned teaching adults in a blended program. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning research perspectives*, pp. 203-211. New York, NY: Routledge.

So, H. J., & Bonk, C. J. (2010). Examining the roles of blended learning approaches in computer-supported collaborative learning (CSCL) environments: A delphi study. *Educational Technology & Society*, *13*(3), 189-200.

Stenerson, J., Blanchard, L., Fassiotto, M., Hernandez, M., & Muth, A. (2010, Summer). The role of adjuncts in the professoriate. *Peer Review*, *12*(3), 23-26.

Straumsheim, C., Jaschik, S., & Lederman, D. (2015). *The 2015 inside higher ed survey of faculty attitudes on technology*. Retrieved from https://www.insidehighered.com/booklet/2015-survey-faculty-attitudes-technology

Tabata, L. N., & Johnsrud, L. K. (2008, November). The impact of faculty attitudes toward technology, distance education, and innovation. *Research in Higher Education*, *49*(7), 625-646.

Tech Terms. (2010). http://www.techterms.com/definition/ict

Teo, T., Lee, C. B., & Chai, C. S. (2008, April). Understanding pre-service teachers' computer attitudes: applying and extending the technology acceptance model. *Journal of Computer Assisted Learning*, *24*(2), 128-143.

The 2015 inside higher ed survey of faculty attitudes on technology. (2015). Retrieved from https://www.insidehighered.com/news/survey/partial-credit-2015-survey-faculty-attitudes-technology

The White House. (2011). http://www.whitehouse.gov/issues/technology#id-4

The just-in-time professor: A staff report summarizing eForum responses on the working conditions of contingent faculty in higher education [Report]. (2014). Retrieved from http://democrats.edworkforce.house.gov/sites/democrats.edworkforce.house.gov/files/documents/1.24.14-AdjunctEforumReport.pdf

Wach, H., Broughton, L., & Powers, S. (2011, February). Blending in the Bronx: The dimensions of hybrid course development at Bronx community college. *Journal of Asynchronous Learning Networks*, *15*(1), 87-94.

Wallin, D. L. (2007, Winter). Part-time faculty and professional development: Notes from the field. *New Directions for Community Colleges*, *140*, 67-73.

Wepner, S. B., Tao, L., & Ziomek, N. M. (2003, Winter). Three teacher educators' perspectives about the shifting responsibilities of infusing technology into the curriculum. *Action in Teacher Education*, *24*(4), 53-63.

Woods, R., Baker, J. D., & Hooper, D. (2004). Hybrid structures: Faculty use and perception of web-based courseware as a supplement to face-to-face instruction. *Internet and Higher Education*, *7*(4), 281-297.

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage.

Yoon, S.W., & Lim, D. H. (2007, July). Strategic blending: A conceptual framework to improve learning and performance. *International Journal on E-Learning*, *6*(3), 475-489.

Zhao, Y., Lei, J., Yan, B., Lai, C., & Tan, H. S. (2005, August). 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., & Shellens, T. (2010, May). A cross-cultural study of teacher perspectives on teacher roles and adoption of online collaborative learning in higher education. *European Journal of Teacher Education*, *33*(2), 147-165.