A Phenomenological Investigation of Blended Learning for Professional Development of K-12 Teachers

by

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for Professional Development of K-12 Teachers

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Abstract

A phenomenological study was designed to investigate teachers’ attitudes towards blended learning for professional development, teachers’ perceptions of effectiveness of blended learning within a Community of Practice, and motivations for participating in training using blended methods. Although blended learning has been used in higher education settings and in the business world for several decades, there is a paucity of research on blended learning for professional development of teachers in K-12 settings. School systems wanting to attract and retain teachers are tasked with providing flexible, affordable, and efficient staff development. Teachers who enrolled in a blended professional development course offered by a suburban school system in southern Maryland were included in this study. Data were collected through an open-ended questionnaire and semi-structured interviews. Responses were coded and analyzed for themes regarding the lived experiences of participants. Interpretations of teachers’ responses provided insight to the needs and desires of teachers who participated in blended learning and ways for K-12 school systems to improve professional development offerings for staff. The study found teachers had positive attitudes towards blended professional development due to collaboration, support, convenience of scheduling, and autonomy. In addition, teachers’ perceived effectiveness of blended professional development was impacted by the capability of the instructor and applicability to teaching. Teachers’ motivation to participate in blended PD resulted from flexibility of scheduling, blended format, support of the community, and a need or desire for professional growth.

Keywords: blended learning, Community of Practice, phenomenology, professional development, K-12 teachers
Dedication

To my loving husband, dear children, my mom, and loyal friends for helping me on my journey.

Thank you for your love, patience, support, and understanding.

I couldn’t have made this journey without you.

“You have brains in your head. You have feet in your shoes. You can steer yourself any direction you choose” (Dr. Seuss).
Acknowledgements

As I near the end of my doctoral/dissertation journey I can’t help but say thank you to my friends and loved ones who have been by my side along the way. The years have been busy, and I have had to prescribe to the saying, “Don’t count the moments; make the moments count.” To my rock, my husband Mike, whose constant faith in me, love, and support at home made this adventure possible, I thank you with all my heart. To my darling daughter, Lily, who was “my little barista” when I needed a caffeine pick-me-up or a big hug, you are my light and joy. To my son, Anthony, who turned into a young man before my eyes, you make me proud every day. To both my children, I hope you treasure your education and can see the endless opportunities available when you open your heart and mind to learning.

My gratitude extends half-way across the country to my Chairperson, Dr. Schultz. I can’t thank you enough for getting me over some bumps in the road and for guiding me throughout the dissertation process. You did not just do your job or fulfill a role; you were a teacher in every sense of the word. From our late-night conversations to emails and texts, you always had my back. I am deeply indebted to you. Also, thank you to Dr. Bateman for your work on my committee. Closer to home, I would like to acknowledge Dawn Schaeffer, my supervisor and mentor for professional development. You came through for me and went above and beyond the call of duty in so many ways. And, to my mentor and friend, Becky Blake, you kept me grounded and provided much-needed social and emotional outlets throughout my journey. To all my ACE Facebook friends, your guidance and support was awesome! To my editor and counselor, Dr. Jennifer Forrest, your services rocked! Finally, to all the professors at ACE who shaped me into an educational leader, I thank you for all your wisdom and guidance. Let the new adventures begin!
# Table of Contents

List of Tables ........................................................................................................... xi

List of Figures .............................................................................................................. xii

Chapter 1: Introduction ............................................................................................... 1

  Background of the Problem ...................................................................................... 2
  Statement of the Problem ......................................................................................... 4
  Purpose of the Study ................................................................................................. 5
  Significance of the Study ......................................................................................... 6
  Research Questions .................................................................................................. 7
  Conceptual Framework ............................................................................................. 9
  Definitions of Terms ............................................................................................... 9
  Assumptions ............................................................................................................ 11
  Scope and Delimitations ......................................................................................... 12
  Limitations ............................................................................................................... 13
  Chapter Summary .................................................................................................... 15

Chapter 2: Literature Review ..................................................................................... 16

  Literature Search Strategy ....................................................................................... 17
  Conceptual Framework ............................................................................................ 18
  Research Literature Review .................................................................................... 21
  Status of Online and Blended Learning Environments ........................................ 23
  Effectiveness of Blended Learning in Higher Education Settings ......................... 25
  Increasing Effectiveness of Professional Development ....................................... 26
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving Pedagogical Practice</td>
<td>27</td>
</tr>
<tr>
<td>Improving Teachers’ Perceptions of Professional Development</td>
<td>27</td>
</tr>
<tr>
<td>Increasing Motivation for Professional Development</td>
<td>31</td>
</tr>
<tr>
<td>Challenges of Online Learning</td>
<td>32</td>
</tr>
<tr>
<td>Communities of Practice for Professional Development</td>
<td>34</td>
</tr>
<tr>
<td>Characteristics and Needs of Adult Learners</td>
<td>39</td>
</tr>
<tr>
<td>Methodologies of Related Studies of Blended Learning</td>
<td>45</td>
</tr>
<tr>
<td>Research Gap</td>
<td>46</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>47</td>
</tr>
<tr>
<td>Chapter 3: Methodology</td>
<td>48</td>
</tr>
<tr>
<td>Research Design and Rationale</td>
<td>49</td>
</tr>
<tr>
<td>Role of the Researcher</td>
<td>53</td>
</tr>
<tr>
<td>Research Procedures</td>
<td>58</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>60</td>
</tr>
<tr>
<td>Data Collection</td>
<td>62</td>
</tr>
<tr>
<td>Data Preparation</td>
<td>65</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>66</td>
</tr>
<tr>
<td>Reliability and Validity</td>
<td>67</td>
</tr>
<tr>
<td>Ethical Procedures</td>
<td>68</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>70</td>
</tr>
<tr>
<td>Chapter 4: Research Findings and Results</td>
<td>71</td>
</tr>
<tr>
<td>Data Collection</td>
<td>71</td>
</tr>
</tbody>
</table>
Appendix I: Expert Panel Contributors and Responses..........................................................161
Appendix J: Sample of Member-Checked Transcript..................................................................162
## List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Key Value Themes Created by Participation in Online Communities</td>
<td>7</td>
</tr>
<tr>
<td>2. Van Manen’s Six-Step Approach to Hermeneutic Phenomenology</td>
<td>51</td>
</tr>
<tr>
<td>3. Demographic Data of Research Participants</td>
<td>73</td>
</tr>
<tr>
<td>4. Inductively Identified Key Ideas on Teachers’ Attitudes Towards Blended Learning</td>
<td>79</td>
</tr>
<tr>
<td>5. Quality of Blended Learning Environment within Community of Practice</td>
<td>81</td>
</tr>
<tr>
<td>6. Instructor’s Effectiveness and Perceived Effectiveness of Blended Learning</td>
<td>88</td>
</tr>
<tr>
<td>7. Applicability to Teaching and Perceived Effectiveness of Blended Learning</td>
<td>92</td>
</tr>
<tr>
<td>8. Teachers’ Motivations for Participating in Blended PD</td>
<td>96</td>
</tr>
</tbody>
</table>
List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Diagram depicting Blended Online Communities of Practice for K-12 Practicing Teachers</td>
<td>20</td>
</tr>
<tr>
<td>2.</td>
<td>Initial coding of open-ended questions from research questionnaire</td>
<td>76</td>
</tr>
<tr>
<td>3.</td>
<td>Snapshot of data collection for interviews</td>
<td>77</td>
</tr>
<tr>
<td>4.</td>
<td>Teachers’ recommendations for taking blended professional development</td>
<td>78</td>
</tr>
<tr>
<td>5.</td>
<td>Teachers’ perceived effectiveness of blended learning</td>
<td>82</td>
</tr>
<tr>
<td>6.</td>
<td>Teachers’ motivation to participate in blended learning professional development</td>
<td>94</td>
</tr>
<tr>
<td>7.</td>
<td>Participants’ degrees and experience in education</td>
<td>105</td>
</tr>
<tr>
<td>8.</td>
<td>Factors impacting teachers’ attitudes towards blended PD</td>
<td>107</td>
</tr>
<tr>
<td>9.</td>
<td>Factors impacting teachers’ perceived effectiveness of blended PD</td>
<td>110</td>
</tr>
<tr>
<td>10.</td>
<td>Factors impacting teachers’ motivations for participating in blended PD</td>
<td>116</td>
</tr>
</tbody>
</table>
Chapter 1: Introduction

Blended learning, partial face-to-face and online instruction, is a common method for course delivery in higher education settings. The latest report on distance education indicated over 6.3 million students are taking at least one distance learning (online) course, representing 31.6 percent of all students enrolled in higher education institutions (Seaman, Allen, & Seaman, 2018). In some studies, blended learning appeared to be more effective than traditional classroom instruction, but findings were not able to be generalized beyond colleges, universities, and trade schools (Allen, Seaman, Poulin, & Straut, 2016; Bernard, Borkowski, Schmid, Tamim, & Abrami, 2014; Means, Toyama, Murphy, Bakia, & Jones, 2010). While online and blended courses are commonly used for training or development in business, the use of blended learning in K-12 educational settings for the professional development of teachers has not been thoroughly investigated (Barbour, 2017; Blitz, 2013; Means, Toyama, Murphy, & Bakia, 2013; Nguyen, 2015).

School systems which have structures in place for providing online courses to students, should consider the advantages of hosting online or partially online courses for professional development of teachers. Blended professional development (Blended PD) has potential to reach educational professionals without the restrictions of time, space, and pace (Blitz, 2013). Research of Blended PD for K-12 practicing teachers could inform educational institutions of teachers’ needs as adult learners and provide recommendations for designing professional development, which is flexible, affordable, and efficient (Darling-Hammond, 2015).

Chapter 1 of this document will address the background of the problem, statement of the problem, purpose of the study, and significance of the study. Research questions, theoretical framework, definitions of terms, assumptions, scope, delimitations, and limitations will be
provided. A summary will address key topics covered in the chapter and introduce the literature review found in Chapter 2.

**Background of the Problem**

Soon after the World Wide Web expanded to higher education in the early 1990s, online learning became a popular method for reaching more students and delivering content outside institutional boundaries (Anderson & Elloumi, 2004). At the start of the new millennium, online and blended learning were prominently used in colleges and universities. Young (2002) reported “hybrid courses and hybrid degree programs promise the best of both worlds, offering some of the convenience of all-online courses without the complete loss of face-to-face contact” (“Faculty Preferences,” para. 1). The method serviced commuter students and provide support to students by using a variety of formats. Administrators noted having students come part-time could maximize classroom use and reduce cost of facilities (Young, 2002).

The history of online learning in K-12 settings had similar beginnings, with an estimated 40,000 to 50,000 students enrolled in distance education courses at the start of the 21st century (Barbour, 2017). Following the implementation of online and hybrid instruction in higher education, the trend expanded into K-12 school systems where learning management systems (LMSs) and virtual networks (VNs) were used to house course content for correspondence education in high schools. Statewide VNs became increasingly popular and schools were able to implement blended learning to provide personalized instruction regardless of physical distance between students and schools (Patrick & Sturgis, 2015).

An annual report on digital learning by Gemin, Pape, Vashaw, and Watson (2015) noted there were an estimated 4.6 million K-12 students taking online or partially online courses. In response to this increase, Blitz (2013) called for more research of blended learning in K-12 settings, including for professional development and noted how online PLCs could do the job of
traditional workshops. While online and blended learning are prominently in use, there is a paucity of research on effectiveness and implementation in K-12 settings for both students and staff. The existing research has not provided convincing evidence these methods produce consistent results (Barbour, 2017).

A problem prevalent in the research for online and blended learning, is the ambiguity of terms used by different programs (Barbour, 2017). The terms hybrid and blended have been used interchangeably throughout the research of online learning (Cuesta Medina, 2018; Halverson, Graham, Spring, Drysdale, & Henrie, 2014). Picciano, Seaman, and Allen (2010) noted hybrid learning is known by many other names and by design has multiple definitions and models. Staker and Horn (2012), defined blended learning as an online method where there is some control over the online environment with at least some time spent in a physical setting away from home. Use of the term blended learning has only recently been used in K-12 and higher education to explain how face-to-face and online teaching methods blend. The term hybrid learning has been used more often in the United States where online tools and media have been added to existing courses (O’Byrne & Pytash, 2015).

The range in percentages of time online and the ambiguity of terms has made the study of blended, or hybrid learning, challenging. To add to the confusion, institutions may use the terms mixed-mode, web-enhanced, e-learning, or flipped classroom to describe a technology-enhanced course (Picciano et al., 2010). Online Learning Consortium, a research group dedicated to online learning and teaching, quantified the range of blended or hybrid learning as 30-79 percent online (Allen et al., 2016). Digital Learning Collaborative (2019) defined blended learning as “any combination of online learning and site-based, face-to-face education” (p. 7). Investigators who have attempted to narrow the use of terms and who report on the progress of blended learning or hybrid learning, should determine how the term was applied before considering the impact on a
research study. For this study, blended learning is defined as a combination of face-to-face meetings and internet-based online activities and discussions using an LMS.

**Statement of the Problem**

Opfer and Sprague (2018) called for American schools to build teachers’ knowledge and use of technology by exposing staff to face-to-face, online, and blended learning communities. Professional development courses which use blended learning techniques, could facilitate on-the-job training of technology which teachers could, in-turn, implement in classrooms with students. To keep up with the demands of a technological society and encourage collaboration among teachers, school systems have been charged with providing flexible, affordable, and efficient professional development (Darling-Hammond, 2015; Fullan & Hargreaves, 2016; Long, 2018b; U. S. Department of Education, Office of Educational Technology, 2016). Blended learning can potentially fill this need by providing flexibility of time and place, while still providing structure and support of a traditional classroom for part of the time in order to meet the needs of adult learners (Blitz, 2013; Zorn-Arnold & Conaway, 2016).

The problem is teachers’ attitudes towards blended professional development, perceived effectiveness of blended professional development, and motivation to participate in blended professional development are unknown. Blended PD is important for school systems desiring to provide meaningful, cost-effective, flexible options for teachers to retain certification, increase technological skills, and keep abreast of current instructional best practices (Paskevicius & Bortolin, 2016; Schaffhauser, 2015; Shand & Farrelly, 2018; Siko & Hess, 2014; U. S. Department of Education, Office of Educational Technology, 2017). Creswell and Creswell (2018) noted qualitative investigators learn meanings and perceptions participants hold about a problem or phenomenon being studied while developing a complex holistic view of the issue. Information provided by this phenomenological investigation could be used to impact the way
staff development is conducted in K-12 settings and inform educational agents about the attitudes, perceptions, and motivations of teachers engaged in blended PD.

**Purpose of the Study**

There is a marked increase in online and blended learning in K-12 schools (U. S. Department of Education, Office of Educational Technology, 2016). School systems, higher education institutions, teachers, and research scholars “need to come together to ensure practitioners have access to current information regarding research-supported practices and an understanding of the best use of emerging online technologies to support learning in online and blended spaces” (U.S. Department of Education, Office of Educational Technology, p. 37). The goal of blended learning is to overcome the isolation of working online with face-to-face support as students navigate online technologies (Whiteside, 2015). The purpose of this interpretive phenomenological study was to investigate teachers’ lived experiences while participating in a blended PD course within a Community of Practice (CoP) for K-12 public school teachers in southern Maryland.

Means et al. (2013) conducted a meta-analysis of online and blended research and found students in blended learning environments in higher education institutions performed better than students in face-to-face or online only classes and called for more research of blended learning in K-12 settings to corroborate these findings. While educational organizations have relied on traditional methods for training staff, this phenomenological study was designed to explore teachers’ experiences while participating in blended PD and will contribute to the research by sharing information from a school system employing an LMS to host blended PD courses. This study proposed to address a gap in the literature with three research questions posed to study blended professional development for K-12 practicing teachers. The investigation could aid
school systems in developing methods for more effective, flexible, and affordable professional development for teachers who are limited by time and place to take required coursework.

**Significance of the Study**

Research studies should not be limited to courses for K-12 students and may include other components of educational systems including professional learning communities (Nguyen, 2015). Blended PD has potential to meet the needs of teachers as adult learners and provide a motivating and effective alternative to face-to-face workshops which are limited by time, space, and pace (Blitz, 2013). This study could be important for school systems in understanding professional development practices which effectively train and retain staff. When working with teachers and taking into consideration the specific needs of adult learners, use of technology, such as online learning during blended PD, could enhance teacher motivation, improve instructional practice, and increase student achievement (Schleicher, 2016; Zorn-Arnold & Conaway, 2016).

Schleicher (2016) discussed benefits of collaborative professional learning in promoting teacher self-efficacy and higher job satisfaction. Results from *Programme for International Student Assessment* (PISA) were better for Organisation for Economic Co-operation and Development (OECD) countries. Assessment results are attributed, in part, to higher rates of professional collaboration and support for teachers’ continuing education. The use of blended PD has potential to promote effective and motivating training, which transfers to the classroom and aids in developing students who are eager and prepared to learn in the 21st century. Table 1 shows the value of participation in online learning communities. The themes listed may also result from blended learning communities and should be investigated.
Table 1

**Value of Participation in Online Learning Communities**

<table>
<thead>
<tr>
<th>Immediate Value—Experienced immediately by participating in community activities</th>
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<tbody>
<tr>
<td>• Feeling less isolated</td>
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<tr>
<td>• Engaging in professional conversations with other teachers with whom they identified</td>
</tr>
<tr>
<td>• Receiving help and support</td>
</tr>
<tr>
<td>• Providing advice or encouragement</td>
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<tr>
<th>Potential Value—Knowledge, resources, and relationships that could prove useful in the future</th>
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<tr>
<td>• Deepening knowledge through structured processes of engagement</td>
</tr>
<tr>
<td>• Gaining a broader perspective by deprivatizing practice</td>
</tr>
<tr>
<td>• Increasing self-confidence and a sense of professional identity</td>
</tr>
<tr>
<td>• Expanding the network of professional connections</td>
</tr>
<tr>
<td>• Accessing resources and tools</td>
</tr>
<tr>
<td>• Increasing trust in individuals and the collective community</td>
</tr>
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<table>
<thead>
<tr>
<th>Applied Value—Changes in practice applying knowledge, resources, and/or relationships</th>
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<tr>
<td>• Teachers translated knowledge and relationships into practice:</td>
</tr>
<tr>
<td>• Using lessons or ideas from the community in the classroom</td>
</tr>
<tr>
<td>• Changing classroom practices</td>
</tr>
<tr>
<td>• Teachers often changed the ways in which they shared knowledge with their peers and public audiences:</td>
</tr>
<tr>
<td>• Initiating and leading professional development experiences for other teachers</td>
</tr>
<tr>
<td>• Creating collections of materials for use by other teachers</td>
</tr>
<tr>
<td>• Collaborating with other members to present at conferences and write for public audiences</td>
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<tr>
<th>Realized Value—Improvements in outcomes caused by application</th>
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<tbody>
<tr>
<td>• Improving communication and learning within an educational institution</td>
</tr>
<tr>
<td>• Producing knowledge products that influence educational policy at district, state, and national levels</td>
</tr>
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<th>Reframing Value—Changes in an understanding of success</th>
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<tr>
<td>• High-quality dialogue caused participants to rethink their views on not only specific practices but also key issues in education and its role in society.</td>
</tr>
<tr>
<td>• Teachers who previously saw their professional responsibilities as being limited to serving the students in their individual classrooms took on leadership roles and engaged in collaboration with other teachers to support professional learning throughout their schools and attempted to influence the public policy that sets the conditions for their work.</td>
</tr>
</tbody>
</table>

*Note.* This table is in the public domain and retrieved from U.S. Department of Education, Office of Educational Technology (2014). *The connected community: Exploratory research on designing online Communities of Practice for educators to create value.* Retrieved from [http://www.ed.gov/technology](http://www.ed.gov/technology)

**Research Questions**

Hermetnic phenomenology founded by Heidegger (1996) was chosen to share teachers’ attitudes, feelings, and perceptions of the blended learning experience. Hermeneutic,
or interpretive, phenomenology allows for interpretation based on knowledge or experience of
the topic. Rather than approaching the topic by putting aside, or bracketing, ideas,
interpretations are permitted to dig deeper into the subject. The following research questions
were designed to explore participants experiences and provided the foundation of the study:

**Research Question One**

How does blended learning impact teachers’ attitudes towards professional development?

Blended learning is a relatively new approach for professional development. Teachers who
participate in on-the-job training may perceive blended PD differently than traditional training
methods. Question one addresses teachers’ attitudes towards technology, course methods, or
external factors such as convenience and flexibility. Responses could inform course developers
on how to create blended learning courses which appeal to educators.

**Research Question Two**

How do K-12 teachers perceive the effectiveness of blended learning for professional
development within a Community of Practice? Question two serves to determine how educators
perceived the experience as a participant in a blended learning course where participants were
engaged in learning within a Community of Practice with a common context and common
domain of teaching. Results may vary dependent on comfort level with technology, interaction
with colleagues, knowledge of content, and engagement in course activities. This question could
provide responses assisting with identifying alternatives to traditional professional development
methods and help assist educational agencies in providing effective training for staff.

**Research Question Three**

What motivates teachers to participate in blended learning professional development?

Educators may have a variety of reasons for participating in staff development. Question three
provides insight into teachers’ needs as adult learners. Educators answering question number
three could help school systems develop motivating and engaging professional development to support teachers who are required to take professional development courses. Motivation may be intrinsic or extrinsic and relate to professional duties or personal responsibilities.

**Conceptual Framework**

Wenger’s Community of Practice (CoP) theory combined with concepts of andragogy from Knowles’ adult learning theory presented a framework for study exploring teachers’ collaboration and engagement during professional development. Farnsworth, Kleanthous, and Wenger-Trayner (2016) noted how a CoP develops out of the relationships held by the members. For adult learners, including teachers involved in blended professional development, learning may be influenced by perceived effectiveness, practicality of the information, and motivation. Adults have diverse needs and reasons for participating in online learning (Conaway & Zorn-Arnold, 2015). The use of blended learning may impact teachers’ attitudes towards professional development, motivate teachers as adult learners, and increase effectiveness of professional development for K-12 practicing teachers.

**Definitions of Terms**

The following definitions of terms will be used throughout the paper. Terms highlighted include the topics of blended learning, Communities of Practice, and adult learning theory. Definitions will present a general understanding of the terms and orientation to the research topic.

**Adult learners.** People who, as defined by Knowles (1984), have different needs than children and learn in a way based on experience and learner-centered rather than instructor-centered (Conaway & Zorn-Arnold, 2015).

**Andragogy.** Theory of adult learning developed by Knowles (1984) built around six principles which impact learning including: 1) role of experience, 2) self-directedness, 3)
learner’s need to know, 4) readiness to learn, 5) orientation to learning, and 6) intrinsic motivation.

**Blended learning or hybrid learning.** Terms used to describe an instructional approach which combines face-to-face learning in either a traditional classroom, professional workshop, or other institutional setting, with some amount of online learning (Picciano et al., 2010). The terms hybrid and blended have been used interchangeably throughout the research of online learning (Cuesta Medina, 2018; Halverson et al., 2014). Blended learning describes any combination of online learning and site-based, face-to-face education (Digital Learning Collaborative, 2019). For this study, blended learning incorporates face-to-face professional development sessions with use of an internet-based learning management system, to allow participants to communicate and collaborate online. A course instructor guides the activities and discussion board topics.

**Blended professional development (Blended PD).** A form of professional development which utilizes web technology and allows teachers to be able to learn anytime and anywhere (Zhang, Li, & Ford, 2016). Blended professional development is a combination of face-to-face and online learning which may include benefits for learners such as flexibility, availability, and cost-effectiveness (Nguyen, 2015; Shand & Farrelly, 2018; Suprabha & Subramonian, 2015).

**Communities of Practice (CoP).** Groups of people who share a common domain, community, and practice (Farnsworth et al., 2016). Jones, Stephens, Branch-Mueller, and de Groot (2016) identified the community as a group with shared experiences, interests, backgrounds, and commitment to a topic and added how technology and online tools may be used to establish on-going communication within the community. For this study, CoPs as defined by Wenger and Trayner-Wenger (2015) described an online learning community of
teachers who worked together in a situated learning context with a common goal and purpose to explore and improve instruction in a K-12 setting.

**Learning Management System (LMS).** An online learning platform which incorporates web-based technology and facilitates connections and interactions among students, teachers, and content (Holmes & Prieto-Rodriguez, 2018). An LMS may incorporate e-learning tools such as, but not limited to discussion boards, blogs, wikis, and chat rooms to support active engagement of participants. For this study, Moodle or Blackboard were the LMS which housed discussion boards and course activities.

**Professional Development (PD).** On-the job training for teachers which is traditionally offered in face-to-face settings during school or after school hours at professional meetings or workshops (Darling-Hammond, 2015). Professional learning or growth with a goal of improving instruction to increase student achievement (Fullan & Hargreaves, 2016). May also be called staff development or in-service training.

**Assumptions**

The concept of online professional development is a growing practice. Teachers appreciate being able to learn anytime and anywhere (Zhang et al., 2016). An assumption of online professional development is participants seek this method of learning over others and have made a conscious decision to do so. Learning online is assumed to be beneficial for the learner due to the increased flexibility, availability, and cost-effectiveness (Nguyen, 2015; Shand & Farrelly, 2018; Suprabha & Subramonian, 2015). When working with online learners an assumption is participants engage regularly in the course and value time spent online and face-to-face to promote a thorough understanding of the topic (Huss, Sela, & Eastep, 2015). An additional assumption may be the experience enhances understanding and promotes on-going
communication and increased technical skills among participants (Opfer & Sprague, 2018; Suprabha & Subramonian, 2015).

An assumption of this study was participants will respond honestly to a questionnaire and interview questions within the required time frame to contribute to the study. In addition, there could be an assumption instructors and participants will know how to use the technology tools offered in the course and have the same experience as others within the same course to discuss instructional practice openly (Kamolodeen & Jameson-Charles, 2016). Participants should be informed of the purpose of the study and should have a sincere interest in participating in research without fear of any repercussions such as evaluation of job performance, or ulterior motives such as getting a better grade. Furthermore, an assumption may exist where there is a belief that teachers as adult learners will work independently and perform with academic integrity throughout the course.

**Scope and Delimitations**

This study spanned several weeks during the summer break of one school system in southern Maryland and focused on professional development of K-12 teachers in a public-school setting. The scope was further narrowed down to include teachers who participated in a blended learning environment within a CoP for on-going professional development. Maryland educators who self-enrolled in a blended online professional development course comprised the population of the study. Teachers from several schools within a large, suburban, school system in southern Maryland were considered for the population sample. The purposive sample was limited in number and scope, as just two courses met the requirement for being a CoP. Padilla-Diaz (2015) explained samples of participants in phenomenological research are generally chosen through purposive sampling to ensure a common experience. Only teachers who completed all
requirements of the course and participated in both the online portion and face-to-face sessions of the professional development were considered for the study.

Delimitations of the study included location and the time frame in which the study took place, as well as the courses chosen for research. Data collection took four weeks, as determined by course schedules and availability of participants. This study only considered blended learning for the purpose of providing professional development in a K-12 setting. The sample and methodology were chosen to fulfill a gap in understanding teachers’ attitudes towards blended PD, how blended PD is perceived by practicing educators, and what motivates teachers to participate in blended PD. Hermeneutic (interpretive) phenomenology was chosen to explore the meaning of the phenomenon from the point of view of participants (Arghode, 2012; Creswell & Creswell, 2018; Glesne, 2016; van Manen, 2016; Yüksel & Yildirim, 2015). Qualitative methods were employed with intent to triangulate data and promote generalizability to a larger population of K-12 teachers.

**Limitations**

Limitations could result from the scope of the study. This qualitative phenomenological research study was limited to teachers who self-enrolled in a blended PD course and who responded to a call for participants. A further limitation was the timeframe to conduct the study, as the courses were completed at the end of the school year or during summer break for teachers and results may be influenced by participants’ availability or willingness to participate. Though online learning developed out of the improved use of technology and claims of convenience, there may be limitations in students’ abilities to communicate, feel connected, access content, and work effectively online (Aksal, 2011; Huss, et al., 2015; Whiteside, 2015). A way to reduce the impact of this limitation was to draw from more than one course to be able to increase the population sample and to collect data from multiple sources.
Dependability of the research could be impacted if qualitative data is not thoroughly examined. To ensure dependability, triangulation of data from a questionnaire and semi-structured interviews were employed in the study. These methods served to confirm findings and reduce likelihood of bias (Creswell & Creswell, 2018). Transferability of findings was a concern. According to Cho and Lee (2014), transferability represents how the research could be applied in other situations. By allowing disclosure of the research plan and a review of findings the research could be used to inform other school systems of the effectiveness of blended learning for professional development. Sohn, Thomas, Greenberg, and Pollio (2017) noted phenomenological studies in education may be transferable in other settings if the essence of the meaning of the phenomenon is important to other teachers and students.

An open-ended questionnaire and in-depth interviews were analyzed for themes regarding impact of blended learning on professional development. The study was subject to the technical skills of the course instructor and participants, as well as technological support able to be offered by the school system. One way to address this issue was to train course instructors on how to use the LMS, including how to mitigate common problems with access such as forgotten passwords. This training took place during onboarding for course instructors prior to course implementation.

Course instructors were provided information on blended learning techniques for motivating and engaging students including how to run discussion boards, managing online activities, and creating assignments. Administrative duties of the LMS were handled by the Director of Staff Development during the research timeframe to prevent unintentional contact with participants. The password to access Moodle was changed by the Director of Staff Development and remained unknown until completion of study. In addition, the Director of Staff Development assumed all administrative duties for blended learning courses during this
period and took over the task of recruiting participants for the study, as well as providing technical support for instructors and participants.

**Chapter Summary**

Chapter 1 explained the research study of blended learning for online professional development of teachers. The school system explored in the study provided blended courses using Moodle or Blackboard LMS to promote flexibility, accessibility, and affordability for on-the-job training of faculty and staff. An increasing number of traditional K-12 schools have started to implement blended learning practices in order to meet individual learning styles and support 21st century learners (Patrick & Sturgis, 2015). A phenomenological study, incorporating an end-of-course questionnaire and semi-structured interviews, led to an analysis of teachers’ attitudes towards blended learning, effectiveness of blended learning for professional development, and teachers’ motivation to participate in blended professional development. Chapter 1 is followed by a literature review examining the history of blended learning, theoretical framework, professional development practices, and needs of adult learners.
Chapter 2: Literature Review

The study of blended learning has focused primarily on higher education settings and students enrolled in higher education institutions, but there is a call for more exploration and research of blended learning for on-the-job training including professional development of K-12 teachers (Blitz, 2013; Tay, 2016). The education profession includes a rigorous recertification process and on-going professional development which requires teachers to take courses to maintain teaching credentials. To satisfy these requirements, teachers may opt to take graduate credits from higher education institutions or may choose to take continuing professional development credits on a variety of job-related topics within individual school systems. Until recently, teachers’ only options for professional development provided by school systems were one-time workshops or courses offered face-to-face in traditional classroom settings after work hours and on weekends (Siko & Hess, 2014). Now, with the use of online technology, teachers have more choices for when, where, and how to learn.

The problem is teachers’ attitudes toward blended PD, perceived effectiveness of blended PD, and motivation for participating in blended PD are unknown. Use of technology and collaboration among teachers should be encouraged and school systems should be providing flexible, affordable, and efficient professional development (Darling-Hammond, 2015; Fullan & Hargreaves, 2016; Long, 2018b; U. S. Department of Education, Office of Educational Technology, 2017). Blended learning may help school systems provide meaningful, cost-effective, and time-sensitive solutions for professional development of K-12 practicing teachers. A meta-analysis of online and blended research by Means et al. (2013) found students in blended learning environments performed better than students in face-to-face classes but called for more research to understand blended learning from both the participants’ and instructors’ perspectives
in K-12 settings, as most of the studies on blended learning have been conducted in higher-education institutions.

The purpose of this phenomenological study was to investigate teachers’ lived experiences after participating in a blended PD course. The study also considered perceived effectiveness of the blended learning experience. A CoP, as explained by Wenger and Trayner-Wenger (2015), of K-12 practicing teachers was the focus of the study. The research may assist educational agents in providing effective, affordable, and flexible professional development using blended learning.

The following literature review was organized to include sections for Literature Search Strategy, Theoretical Framework, Literature Review of Blended Learning, Communities of Practice for Professional Development, and Adult Learners. Subheadings related to blended learning, professional development, and adult learning theory provide historical background, related research, and implications for future study. A statement of Research Gap, Conclusion, and Chapter Summary set the stage for the subsequent chapters.

**Literature Search Strategy**

Blitz (2013) conducted a review of literature published from 2000-2012 and found a need for more studies on blended learning and professional development in K-12 settings. While many studies have been conducted in higher education institutions, there are few regarding professional development of teachers in K-12 settings and a gap in the literature exists (DeNisco, 2014; Halverson et al., 2014; Nguyen, 2015). Furthermore, while online learning has been used in education for nearly two decades, the research on blended learning is limited (Atef & Medhat, 2015; Cuesta Medina, 2018; DeNisco, 2014; Halverson et al., 2014). Blended learning and hybrid learning research articles within the past five years, as well as seminal research studies in fields of online learning and adult learning, were reviewed and used to narrow the topic to
blended learning for professional development of K-12 practicing teachers. Articles for blended learning, hybrid learning, Communities of Practice, and professional development were then examined to reveal common methodologies and recommendations for future study. In addition, the literature search included information on phenomenology to support the research plan.

American College of Education’s EBSCO library database was filtered to include peer-reviewed articles from the past five years. The following educational databases were accessed to locate information for the research study: Academic Search Complete, Education Source, ERIC, JSTOR, and ProQuest Dissertations and Theses. Educational Database, Google Scholar, and websites from educational organizations were also consulted to retrieve data on the status of online education. Databases were reviewed for information on relevant search criteria including: professional development, professional development and K-12 teachers; blended learning or hybrid learning and K-12 education; blended learning or hybrid learning and professional development, online professional development; hybrid learning, online teaching, online learning; Communities of Practice, Wenger; Knowles, adult education, and adult learning theory; phenomenology, Heidegger and interpretive phenomenology, phenomenology and educational research.

**Conceptual Framework**

Adult learning theory (Knowles, 1984) and CoP theory (Wenger & Trayner-Wenger, 2015) were merged to create a conceptual framework. Together, these concepts provided a foundation for studying collaboration and engagement of teachers as adult learners participating in online professional development. Two key considerations of adult online learners are orientation to a topic and readiness to learn (Conaway & Zorn-Arnold, 2016). Adult learners have diverse needs and reasons for participating in online learning. Adults are problem-centered with a need to be able to use the information now rather than in the future. Adults who choose
online courses may be doing so to maintain certifications, or to satisfy certain needs and desires. Adults may feel a sense of responsibility to family or aspire to advance careers. Though adult learners may be motivated to learn and choose to participate in an online course, disengagement, frustration with technology, and feelings of isolation may negatively impact performance (Zorn-Arnold & Conaway, 2016). The structure of a CoP within a blended learning environment is designed to mitigate these feelings of isolation with a sense of community and support.

Wenger, McDermott, and Snyder (2002) defined CoPs as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an on-going basis” (p. 4). Participation is voluntary, and leadership comes from both within and outside the community. Farnsworth et al. (2016) added to this theory and noted how a CoP develops relationships held by members with a common domain (content knowledge), community (organization), and practice (profession). Professional development built around a CoP provides a learning partnership with social context for people who find the method beneficial and useful to learn from and with each other (Smith, Hayes, & Shea, 2017). Figure 1 depicts the characteristics and benefits of blended learning and CoPs for K-12 practicing teachers.

Adult learners, including teachers involved in professional development, want an experience which is informative, practical, and meets professional goals. Use of online or blended learning provides a social context of a community and a shared domain of professional knowledge (Smith et al., 2017). A need for self-directed learning can be enhanced by technology-based instruction which encourages collaboration and delivers content at a time, place, and pace convenient to the adult learner (Zorn-Arnold & Conaway, 2016). One conclusion which could be drawn from the literature is blended PD has potential to bring teachers together and foster learning from shared experiences, shared understanding, and mutual
Figure 1. Forrest (2019) Diagram depicting Blended Online Communities of Practice for K-12 Practicing Teachers, a Visual Model of characteristics of Communities of Practice (Farnsworth et al., 2016) combined with benefits of an online environment.

The method is a sustainable, cost-effective, and convenient solution for adult learners which combines face-to-face instruction with online methods to reduce feelings of isolation while still allowing for autonomy (Conaway & Zorn-Arnold, 2015; Suprabha & Subramonian, 2015). Blended PD within a CoP, which follows tenets of adult learning theory, has potential to increase effectiveness of professional development for K-12 practicing teachers, impact teachers’
attitudes towards professional development, and motivate teachers to participate in professional development activities.

Interpretive phenomenology, as prescribed by Heidegger (1996), is a viable method for understanding lived experiences of teachers participating in blended PD (Yüksel & Yıldırım, 2015). Cilesiz (2011) noted investigating individuals’ experiences with technology is consistent with phenomenology and suggested use of qualitative methods could enhance the findings of quantitative studies by helping understand the meaning behind quantitative results.

Phenomenological research method encourages reflection and being open to experience and discovery (van Manen, 2016). The method also includes analysis and interpretation of phenomena experienced by participants (Padilla-Díaz, 2015). The following literature review examines the history and use of blended learning, its effectiveness in various contexts, Communities of Practice, and adult learning theory to contribute research on effectiveness of blended learning and its impact on teachers’ attitudes and motivation towards professional development. Hermeneutic phenomenology method will be used to share lived experiences of teachers participating in a CoP and interpretations within a blended learning context.

**Research Literature Review**

Blended learning is a flexible and diverse construct in the field of education which still lacks a precise definition; yet, most definitions incorporate some aspect of online learning with support of face-to-face instruction. Atef and Medhat (2015) described blended learning as encompassing a variety of learning methods both inside and outside the classroom. While the term hybrid suggests there are characteristics from online and face-to-face methods combined to create something new, blended learning may be viewed as a seamless construct of technological and traditional methods conceived from one idea in which activities must be carefully considered to use the best of both modalities (Paskevicius & Bortolin, 2016). Cuesta Medina (2018) defined
blended learning as a customizable and synergistic pedagogical approach with potential to foster academic needs of learners. In this study, the term blended learning was used to describe an instructional practice which included face-to-face meetings where teachers could collaborate and participate in class activities combined with an online community to support participants.

Although use of the term blended learning remains relatively new, examples of the teaching strategy can be found throughout literature since the advent of the internet and distance education (Cuesta Medina, 2018; Halverson et al., 2014; Seaman et al., 2018). Distance education originated with early video-based technology, correspondence courses, and educational television (Means et al., 2013). Internet-based learning evolved and blended with traditional courses to become hybrid courses which became popular in American education. Spanier (as cited in Young, 2002) the president of Pennsylvania State University, noted hybrid instruction was a critical and unknown educational trend with potential to incorporate the best of both worlds of online and face-to-face learning. The higher education leader cited cost savings and convenience as a key consideration for adding hybrid courses to existing programs of study. The hope was to service on-campus and off-campus students with high quality courses which were both convenient and accessible.

Staker and Horn (2012), defined blended learning in terms of the modality used to deliver content and learners’ control over the learning process. The definition included an understanding of how a student learns through online methods with “some control over time, place, path, and/or pace and at least in-part at a supervised brick and mortar location away from home” (p. 3). Allen et al. (2016) used a similar definition to demonstrate students’ ability to personalize instruction. Together the definitions represented a flexible, accessible, and sustainable teaching and learning strategy which used technology to supplement face-to-face interactions.

Cuesta Medina (2018) examined the evolution of online learning and found a gap in the
literature about different types of blended learning and pedagogical approaches. Picciano et al. (2010) cautioned although there have been several studies and articles on blended and hybrid models, these have tended to report what has happened in a single course, program, or institution and may not be generalizable to the greater population. Powell et al. (2015) analyzed blended practices in education from 2008-2015 and concluded blended learning combines the best features from traditional school settings with advantages of online learning including deeper learning and personalized instruction. Powell et al. further identified a need for a better understanding of blended learning environments and a shift in teacher preparation, including professional development on the use of blended teaching and learning methods.

**Status of Online and Blended Learning Environments**

Though educational institutions differ in how much time online is permitted in a blended course and instructional methods for course delivery vary, distance education enrollments have increased. In 2016, 6.3 million higher education students, a third of all students enrolled in colleges and universities, took at least one distance-learning course (Seaman et al., 2018). Meanwhile, studies noted, on-campus enrollments at for-profit institutions dropped 44.1 percent from 2012-2016; private and public schools fared better with decreases of less than 5 percent. While this longitudinal research provided data from studies of higher education institutions spanning nearly two decades, use of blended learning with K-12 students and teachers has not been thoroughly investigated (Nguyen, 2015).

A meta-analysis of online and blended learning reported there were few rigorous studies of blended learning in K-12 learning environments (Nguyen, 2015). This is significant because teacher training and student use of online technology have potential to impact student performance, but there is limited research to support investment in online tools and technology. A partial survey of selected school systems by Queen and Lewis (2011), reported having 1.8
million students enrolled in distance education programs. There is no related data for use by teachers or other staff. Of the districts included in the survey, 74 percent reported students enrolled in distance education courses at high school level, 9 percent at middle school, and 4 percent in elementary. Use of asynchronous instruction via internet platforms was the most-widely used medium for delivery of curricula.

Schaffhauser (2015) reported blended learning and professional development were key components of Every Student Succeeds Act (ESSA) passed in December 2015. Educational technology was slated to be used to support students and provide professional development to educators to improve academic achievement. There were guidelines for training teachers and school leaders in STEM initiatives, as well as for providing technology upgrades throughout the K-12 sector. Considering the impact of ESSA, and school systems’ needs to meet federal guidelines, research and data for online and blended learning in K-12 settings should be more prevalent.

Herold (2017) reported, although there are likely to be millions of students who take online classes for classroom-based interventions, grade recovery, dual-enrollment opportunities, and non-traditional courses, an exact number enrolled is unknown. Furthermore, some states require participation in at least one online course prior to graduation but tracking and reporting on this effort has had limited success. The study found few states track or report participation in online environments, and K-12 schools are not obligated to do so (Herold, 2017). Although educators and students have been using online tools for nearly two decades, The Condition of Education, 2018 (McFarland et al., 2018) shows little to no information about the use of online technologies and impact on K-12 education. Data indicated about 71 percent of children ages 3 to 18 used the internet, with 86 percent of these students accessing at home, but the report does
not specify whether any of the time was spent accessing blended learning courses.

**Effectiveness of Blended Learning in Higher Education Settings**

Seaman et al. (2018) reported online education in higher education institutions is growing overall, while enrollment at brick and mortar schools is declining. Research data from K-12 environments could be useful for identifying needs of students before enrolling in tertiary education and needs of teachers as they teach and learn online. Kenney and Newcombe (2011) reported blended learning is a positive experience for students in a higher education setting. When blended learning is designed correctly, the structure is an effective teaching method which can encourage student participation, engagement, and interactivity with course materials. Students surveyed in the study reported they learned time management and organization and had more responsibility and self-discipline for learning (Kenney & Newcombe, 2011). Furthermore, adult students became more proficient in the use of technology. Cuesta Medina (2018) found utilizing a combination of asynchronous and synchronous methods meets different needs and learning styles of participants. The study noted flexibility and variety of learning materials are benefits of blended learning courses. Blended PD could provide these same benefits to teachers.

Blieck et al. (2017) examined the impact of blended learning on adult learners and suggested flexibility, accessibility, interactivity, personalization, productivity, and participation were success factors for online students, but cautioned online educators should be transparent about demands of the online portion of a course. When course instructors add online components without reducing other assignments or providing necessary supports, the online learning can become burdensome and undesirable. The course then becomes more work than just attending exclusively face-to-face or online. Banna, Lin, Stewart, and Fialkowski (2015) noted how instructors must pay attention to the technical demands of the course to alleviate students’ anxiety and reduce frustrations. Proper course design and technological capabilities, of
both online instructors and participants, are key components of successful blended learning courses (Atef & Medhat, 2015; Paskevicius & Bortolin, 2016).

Blended learning can be as successful as either online or face-to-face instruction, but there are challenges for students including time management and self-discipline in completing online tasks (DeNisco, 2014; Shand & Farrelly, 2018). Kintu, Zhu, and Kagambe (2017) analyzed effectiveness of blended learning taking into consideration learner characteristics, background, blended learning design elements, and learning outcomes. The study reported blended learning design and learner attitudes were significant predictors of blended learning effectiveness. When learning was perceived as effective, students were more likely to change behaviors and persist in meeting course outcomes. Professional development courses, which employ blended learning methods with adult learners, have potential for changing teachers’ attitudes and behaviors towards learning and teaching. In addition, these methods could lead to improved instruction of K-12 students.

Increasing Effectiveness of Professional Development

Means et al. (2013) found students in online learning situations performed modestly better than students in face-to-face environments, and results were better for blended learning than purely online methods. Additional learning time, instructional resources, and course elements, which encourage interactions among learners, were cited as possible reasons for the difference. Bernard et al. (2014) confirmed these findings but stated there is uncertainty whether methodology or other factors such as additional learning time, instructional resources, and interaction among learners, were the reason for the difference. Nguyen (2015) called the work of Means et al. (2013) seminal in the domain of online education and recommended future research include, but not be limited to, factors which impact effectiveness of online education, blended instruction, and collaborative learning communities. Each of these components have been
addressed in this study of blended learning for professional development of K-12 teachers engaged in a CoP.

**Improving Pedagogical Practice**

Picciano et al. (2010) reviewed the literature about blended PD and found, in addition to there being limited discussions of professional development for K-12 teachers, improving pedagogical practice of online techniques was not a goal or objective for administrators incorporating online learning into schools. Means et al. (2010) confirmed these findings and called for further research of hybrid, or blended, and online professional development opportunities. Means et al further cautioned we have not yet shown the significance of blended learning on student achievement compared to meeting face-to-face in a traditional setting. Though blended learning is a growing practice, more research is needed to understand the instructional pedagogy from both the students’ and instructors’ perspectives.

**Improving Teachers’ Perceptions of Professional Development**

Darling-Hammond (2015) critiqued workshops which bring in experts from the outside or use slide presentations to guide learning and stated drive-by workshops do not change teaching practices. Long (2018b) added, to improve professional development and increase student achievement, teachers must work together and come together to discuss teaching practices. Improving professional learning of teachers has potential to improve student performance. Schleicher (2016) found OECD countries which promote and support professional collaboration have better results on student achievement. In addition, these countries produce teachers who are more satisfied and motivated by the professional development experience.

Professional development needs of teachers have increased, while time and resources to address them has decreased (Darling-Hammond, 2015). *Teaching and Learning International Survey (TALIS), 2013* indicated teachers who engage in collaborative learning have higher job
satisfaction (OECD, 2016). Teacher satisfaction impacted student outcomes where teachers reported feeling valued and supported, and these countries performed better on PISA (Schleicher, 2016). The survey identified several concerns with American education. As Darling-Hammond (2015) discussed in analysis of TALIS 2013, teachers in the United States work harder under much more challenging conditions than teachers elsewhere in the industrialized world, receive less-useful feedback, receive less-helpful professional development, and have more stringent recertification procedures than colleagues in other countries. These statistics are compounded by the fact many teachers leave within five years or less to seek out other higher-paying jobs, and there are less graduates entering the profession overall (Allegretto & Mishel, 2016).

The use of online or blended learning for professional development in K-12 settings, while still being explored, has potential to promote professional learning for teachers at all levels. Blended PD is a sustainable solution for enhancing teachers’ motivation to engage in professional development (Suprabha & Subramonian, 2015). Fullan and Hargreaves (2016) added teachers’ well-being, development, and growth should be as important as the academic growth of students. Although professional development has always been a necessary component of the teaching profession, traditional models of professional development are outdated and do not support the needs of 21st century learners (Darling-Hammond, 2015; Schleicher, 2016). Darling-Hammond (2015) cautioned one-stop workshops no longer work in our technological society and suggested implementing professional development opportunities which engage teachers over time to improve instruction and close the achievement gap.

Supporting teachers and students. There is much discussion regarding online learning due to effectiveness of teaching students, cost benefits, efficiency in obtaining credits, and the possibility of enhancing educational opportunities to anyone with access to internet (Nguyen, 2015). Institutions may make a considerable initial investment in technology infrastructure to
successfully implement blended learning, so once basic student and teacher needs are met, long-term academic and economic benefits may be realized (Liyanagunawardena, Adams, Rassool, & Williams, 2014; Suprabha & Subramonian, 2015).

O’Byrne and Pytash (2015) argued both teachers and students learn within blended online environments and school systems should support and encourage collaboration and exploration to train and empower teachers. Benefits to online learning include flexibility, affordability, and meeting needs of 21st century learners. OECD (2016), which measured student progress in the United States against globally competing countries, has called for more collaboration among schools to ensure consistency in teaching practice. Heick (2017) identified experimentation with new learning models, including blended learning, as a trend in educational technology which can be useful with both students and teachers.

**Improving teachers’ technology skills.** Use of technology for teacher professional development should be a concern for all stakeholders (Bostancioglu, 2018). By encouraging blended PD, both students’ and teachers’ technological skills may be enhanced (Opfer & Sprague, 2018; U. S. Department of Education, Office of Educational Technology, 2017). Suprabha and Subramonian (2015) noted professional development should be on-going, job embedded, and support teachers’ use of technology. Theodosiadou, Konstantinidis, Pappos, Papadopoulos, and Marna (2017) reported professional development should be current and applicable to a networked society. Collaboration of blended and online learning has been recognized as helpful for instilling 21st century skills in teachers (Palmer, 2015). Teachers who participate in online education, learn such skills as creating digital resources, making presentations, and designing projects using multi-media formats. By participating in on-going staff development and experiencing online learning for themselves, teachers can transfer these skills to the classroom. Technology adept teachers may help students keep up with demands of a

Use of technology allows teachers to share ideas, address concerns, and has potential to bring teachers together in a manner which is both effective and motivating (Beach, 2012). Opfer and Sprague (2018) discussed online learning as beneficial to professional growth and noted how the practice can assist teachers in transferring technology skills learned while taking an online course to the classroom. Engaging in online or blended environments could help understand experiences and challenges students may face. Kamolodeen and Jameson-Charles (2016) noted how Web 2.0 tools help teachers discuss instructional practice more openly. The use of technology promotes informal learning online professional development, which impacts effectiveness of the online environment. Benefits may include but are not limited to practice and application of time management, reflective practice, research, and experience working with online programs.

Blended learning is recognized for its ability to combine the convenience of online learning with support of face-to-face instruction to promote collaboration among participants and has been recognized as a convenient and meaningful practice for professional development (Long, 2018a). Opfer and Sprague (2018) added online learning provides hands-on opportunities and produces classrooms which are flexible yet focused on student engagement. DeNisco (2014) identified several types of blended learning models but cautioned even with extra support teachers may not know how to or have time to use all the information gained from an e-learning course during instruction. The study indicated time-management and self-discipline were challenges faced by educators in online settings.

Florian and Zimmerman (2015) found Moodle, a learning management system, when used in conjunction with blended learning, provided opportunities for students to develop
technology skills while gaining content knowledge. The study confirmed support and training in online tools are necessary where blended or online learning is used with teachers and students. Blitz and Schulman (2016) predicted research on professional development is expected to reflect changes in what, how, when, and where teachers learn and provided a collection of survey instruments to assist with investigation and administration of blended and online communities. Collaboration among colleagues still takes place in face-to-face settings and connections can be formed without online tools, but “web-enhanced technologies make conversations about practice easier, more open, and available to other colleagues that can enable teachers’ informal learning in ways that have not been explored before” (Kamolodeen & Jameson-Charles, 2016, p.2).

**Increasing Motivation for Professional Development**

While blended learning has been recognized as a growing trend in American education, its effectiveness in K-12 settings, for the professional development of teachers, has not been thoroughly investigated (Blitz, 2013; Halverson et al., 2014; Means et al., 2013; Nguyen, 2015). Darling-Hammond, Wei, Andree, and Richardson (2009) recognized the need to transform professional development about the same time online learning was being introduced in public schools. This team of professional development specialists reported teachers felt the opportunity to collaborate with peers was inadequate. Darling-Hammond (2015) recommended school systems should encourage collaboration among teachers and provide flexible, affordable, and efficient professional development, such as could be offered by blended PD, to keep up with technological demands of the 21st century.

The concept of blended PD is a growing practice. Teachers appreciate being able to learn anytime and anywhere (Zhang et al., 2016). Effectiveness of blended PD may be attributed to benefits for learners including flexibility, availability, and cost-effectiveness (Nguyen, 2015; Shand & Farrelly, 2018; Suprabha & Subramonian, 2015). Teachers, who have limited time to
attend workshops or are physically or geographically challenged to attend class in person, can benefit from blended PD and other online opportunities (Shand & Farrelly, 2018). Learning may occur through face-to-face opportunities and open discussions, or while working independently online. Teachers who participate in online learning have virtually limitless resources at disposal, but still seek out professional connections with colleagues and desire human interactions provided in face-to-face or synchronous settings (Banna et al., 2015). Siko and Hess (2014) found although teachers believed blended PD was beneficial and provided consistent and thorough interaction with material, many teachers felt face-to-face sessions were more worthwhile and were willing to meet even if the time was inconvenient.

**Challenges of Online Learning**

The online environment may propose challenges to learners and instructors. One of the earliest studies of online education discussed the dichotomy of online instructors knowing both content and having technology skills to motivate, engage, support, and properly assess online learners (Anderson & Elloumi, 2004). There was difficulty with providing feedback and determining students’ understanding without ever meeting students face-to-face. Whiteside (2015) concluded blended learning programs are challenging because students and instructors must navigate between online and traditional environments. These challenges may be overcome with careful consideration of course design, improved training of online instructors, and attention to the specific needs of online learners (O’Byrne & Pytash, 2015; U.S. Department of Education, Office of Educational Technology, 2017).

Online learners may need to be reminded to participate and collaborate when working online. Studies indicated teachers’ motivation to engage with peers and contribute regularly may be lower online than face-to-face, perhaps because of a sense of isolation (Zorn-Arnold & Conaway, 2016). Cicco (2014) recommended online course instructors should orient students to
the course and model basic skills required. An online instructor should teach participants how to use required technology and be clear about expectations, so participants feel connected and competent. Cicco further suggested instructors take a poll of students’ learning styles at the beginning of a course to better understand individual students’ needs when designing course activities and recommended online instructors should provide introductory lessons on how to navigate the online environment. By individualizing instruction and recognizing unique needs of students, instructors can promote effective and collaborative professional development while teaching in blended and online settings.

Learner to learner interaction and learner to instructor interaction during blended PD is beneficial to professional growth (Halverson et al., 2014). Drysdale, Graham, Spring, and Halverson (2013) discussed five themes which emerged from a qualitative analysis of 205 doctoral dissertations and masters' theses on blended learning. Themes included: 1) hands-on opportunities, 2) practical application to classroom, 3) technology supports for instruction, 4) flexibility with a focus on student engagement, and 5) need for strong classroom management and organization. Preisman (2014) conducted a case study analyzing social presence of K-12 technology leaders who instructed online courses for teachers and concluded social presence is important in online and blended settings to support learners and keep participants active in online environments. The study showed technological skill determined quality of social presence and suggested online course instructors design purposeful activities, organize the online environment, monitor class interactions, and utilize a variety of instructional methods to enhance academic knowledge of participants.

Online course instructors should also be aware of the demands on participants’ time and understand the process of learning is sometimes more important than learning new content (Anderson & Elloumi, 2004; Siemens, 2005). Extra time spent learning how to navigate online
environments, especially in situations where there are high stakes related to demands of fulfilling job requirements, can be stressful for students (Rotar, 2017; Zorn-Arnold & Conaway, 2016). Blended PD research has found online instructors should balance flexibility, adaptability, and convenience of working with appropriate resources and support provided in face-to-face settings (Blieck et al., 2017; Shand & Farrelly, 2018; Zorn-Arnold & Conaway, 2016). DeNisco (2014) argued blended learning can help to overcome challenges faced by educational systems through improved training, increased access, flexibility, and cost-effectiveness.

**Communities of Practice for Professional Development**

Studies on Professional Learning Communities (PLCs) and CoPs have used these terms interchangeably to describe methods of school improvement where groups of educators meet with a common purpose, but there is a need for clearer descriptions of each (Blankenship & Ruona, 2007). DuFour (2014) examined the progress of PLCs over the course of a decade and concluded PLCs work best when they are on-going, collective, job-embedded, and results-oriented. The founder of PLCs examined both virtual and face-to-face examples and noted regardless of method used, a PLC should maintain a focus on learning and follow best practices. CoPs have similar characteristics to PLCs. Wenger and Trayner-Wenger (2015) posited a CoP is a type of learning formed out of relationships between people and the world and identified a CoP as something produced over time.

**Definitions of Communities of Practice.** Teachers who learn within a community and who are self-directed are more likely to value learning and apply new knowledge to classroom instruction (Conaway & Zorn-Arnold, 2015; Farnsworth et al., 2016; Smith et al., 2017). Blitz (2013) further explained similarities of PLCs and CoPs found in research studies. These articles frequently cited situated learning theory of Lave and Wenger (1991) when describing a community. Both communities occur more readily when educators are brought together for a
common purpose or to solve a problem. For this study, CoPs as prescribed in Wenger and Trayner-Wenger (2015) will be used to describe an online learning community of teachers in a situated learning context with a common goal and purpose to explore current research and instructional practices. The study will employ blended learning using an LMS with discussion boards to facilitate an online learning community.

**Blended learning within Communities of Practice.** Blitz (2013) identified a need for more research of blended learning and stated teachers involved in professional development can achieve the goals of PLCs. Blended learning within a CoP allows teachers to work autonomously but allows them to come together as necessary to collaborate and reflect on professional practice (Spring, Graham, & Ikahihifo, 2019). Spring et al. (2019) noted Wenger’s CoP is a social learning context which supports online and blended learning and promotes collaboration and engagement of professionals. The professional goal of a CoP is to improve professional practice through an on-going and interactive format which supports all members of the community. Activities may be done within context of an LMS or Massive Open Online Course (MOOC) discussion board, or use of online tools including, but not limited to, videos, webinars, social media sites, wikis, and blogs (Jones et al., 2016).

A CoP may develop out of a need to study a topic over time or to make far-reaching and long-lasting organizational change (Paskevicius & Bortolin, 2016). A CoP is focused on a common domain or knowledge base. Learners make up a community which works together to develop effective professional practice (Wenger & Trayner-Wenger, 2015). By using blended learning tools, such as online forums or chat rooms, teachers can discuss ideas immediately rather than wait for a meeting or workshop to occur (Spring et al., 2019). Professional development within a CoP provides a learning partnership for people who find the structure beneficial, meaningful, and useful to learn about a common domain from and with each other.
Online CoPs may enhance the learning of teachers who would otherwise be isolated from peers and forced to wait for a face-to-face meeting in a traditional school setting to share ideas and concerns.

**Success factors of Communities of Practice.** Bostancioglu (2018) investigated whether an online CoP could be a viable form of professional development. The mixed-methods study concluded online CoPs are effective social environments for technology professional development though results may not be able to be generalized to all CoP environments. Jones et al. (2016) had similar findings in a case study of students in a virtual CoP using a MOOC for professional development where the results indicated acts of writing, responding, and commenting within the virtual environment developed a sense of community. A qualitative study by Costello and Welch (2014) cautioned online communities require boundaries, rules, and policies for sustaining the community. All members of the community should maintain a level of trust, respect and support to advance the learning of its members. The study surveyed both students and instructors and applied Herzberg’s sustainability and hygiene factors to online learning communities. The study identified several factors for developing effective online communities, including supervision, acceptable interactions with instructor, interpersonal relations, promptness and consistency in grading, and personalized caring, but called for more use of these factors as students reported a lack of sense of community even when the factors were present.

Overall, evidence indicates online communities of teachers can achieve the goals of traditional face-to-face professional development, and these methods should be supported (Blitz, 2013; Bostancioglu, 2018; U. S. Department of Education, Office of Educational Technology, 2014). Studies of online PLCs showed teachers who collaborate online are engaged, develop a sense of community, improve knowledge of subject and pedagogical content, and strive to
modify and improve instructional practices (DuFour, 2014). Flexibility is presented as one of the strongest advantages of online PLCs over traditional face-to-face models for facilitating teachers’ learning (DeNisco, 2014; Long, 2018a). Online environments allow teachers to access and share knowledge in a timely and comprehensive manner regardless of distance (McLean, Dixon, & Verenikina, 2014). McLean et al. (2014) also noted online environments are better at promoting self-reflection of participants through use of ongoing conversations and interactions which encourage personal growth and commitment to professional learning.

**Benefits of Communities of Practice.** Wenger and Trayner-Wenger (2015) posited engagement within social context of CoP involves a dual process of meaning-making and identified participation in activities, including conversations and reflections, as one aspect of social learning. The other is *reification*, or production of physical and conceptual artifacts such as journals or artwork. During online and blended learning situations learners may interact with words, online tools, concepts, methods, stories, documents, or links to resources to learn content. Liyanagunawardena et al. (2014) found blended learning is effective for reducing the amount of time students must attend face-to-face lectures. This instructional design is helpful to learners in rural or remote areas, who have mobility problems, who have family commitments, or who are employed, but want to increase knowledge (McLean et al., 2014). The benefits of the social learning context of online CoPs have potential to reach far beyond one school or school system as teachers work to improve content knowledge and instructional practice.

It is important for members and facilitators of online learning communities to remain active and involved throughout the learning process (Bostancioglu, 2018). Students who are involved in blended learning environments, are more likely to feel part of the community, collaborate, express ideas, and share knowledge (Bostancioglu, 2018; Farnsworth et al., 2016; Smith et al., 2017). To create a sense of collaborative professionalism, Fullan and Hargreaves
(2016) argued professional development should be job-embedded, relevant to teachers, and immediately available for the convenience of learners. By utilizing online or blended PD, teachers who are unable to attend face-to-face meetings, can participate in quality professional development anytime and anywhere (Blitz, 2013; Huss et al., 2015).

Professional learning should be supported by technology resources and tools to provide time for collaboration and incentives for learning (Kamolodeen & Jameson-Charles, 2016; Opfer & Sprague, 2018). Siemens (2005) posited in his connectivism theory regarding online learning, the actual task of learning is more important than what is learned and maintaining connections among learners is needed to ensure continual learning. Jones et al. (2016) further defined connectedness and meaning of community as shared or common experiences, interests, backgrounds, and commitment to tasks. Communities of learners, who are connected and share a common domain and purpose, have potential to advance and grow in knowledge and skill, as well as create a sustainable and motivating environment for professional development.

A sense of community and connectedness may lead to increased collaboration and teacher effectiveness when teachers share a concern or passion for something and learn how to improve teaching (Farnsworth et al., 2016; Smith et al., 2017). Collegiality among members, in turn, may impact teachers’ motivation for learning. When schools and school systems promote blended PD for CoPs, there is potential for teachers to feel more valued and more motivated by the professional development. Teachers who have a sense of being recognized as a professional and supported as adult learners, in turn, may have more positive learning experiences. A CoP utilizing blended learning may motivate teachers, so these instructional practices carry over into classrooms and improve student achievement (OECD, 2016).
Characteristics and Needs of Adult Learners

Adult learners have different needs than children (Arghode, Brieger, & McLean, 2017; Knowles, 1984). Knowles (1984) the founder of andragogy, or adult learning theory, discussed two main characteristics of adults—the acknowledgement adults’ learning is based on experiences and the process is more learner-centered rather than instructor-centered. The theorist identified six principles of andragogy which impact learning. They are: 1) the role of experience, 2) self-directedness, 3) the learner’s need to know, 4) readiness to learn, 5) orientation to learning, and 6) intrinsic motivation. Zorn-Arnold and Conaway (2016) found online learning creates a forum for effective online instructors to apply a variety of strategies to meet the needs of adult learners. Teachers, who participate in professional development geared for adults, may be influenced by the experiences, and school systems should strive to create a learning environment conducive to adult learners.

**Online and blended learning for adult learners.** The structure of blended PD includes advantages such as increased student-teacher interaction, efficiency, and autonomy to meet the diverse needs of adult learners (Conaway & Zorn-Arnold, 2016; Suprabha & Subramonian, 2015). Blended learning has potential to improve relationships and professional collaboration for busy adults (Marmon, Vanscoder, & Gordesky, 2014). Huss et al. (2015) discussed how blended learning encourages learner activity, reflection, and self-monitoring while leading to a thorough understanding of a topic. The practice aligns with the adults’ desires for internal motivation and autonomy, yet still allows learners to collaborate when needed. Allen (2016) added learning should be authentic, relevant, and applicable to an adult learner’s life and work. Adult learners want to feel appreciated and valued while being able to take away something useful from time spent online.
Cicco (2014) discussed how adult learners who are working online must first identify and acknowledge learning needs and responsibilities. Once these needs or preferences have been identified, learners can get the necessary supports, plan for learning, and develop better attitudes for achievement and growth. Dziuban, Moskal, and Brophy (2019) found students prefer the convenience of all online courses and are motivated by not having to come to class. Online learning, which includes the use of multiple modalities and is dynamic in nature, meets the needs of teachers as adult learners by providing a flexible and engaging environment with practical applications to teaching practice and support from colleagues in the community (Huss et al., 2015).

Blended learning success factors for motivating adult learners include flexibility, transparency, accessibility, personalization, interactivity, productivity, and participation (Blieck et al., 2017). Knowles (1984) posited learners become more self-directed with age and instructors should be aware of the needs of adults compared to children. Methods may include but not be limited to, use of the following: hands-on teaching methods, attention to readiness to learn, practical applications of learning, an environment of mutual respect, flexible or individualized learning goals and assessments, inquiry-based teaching, and modeling task performance (Allen, 2016). An environment which encourages connections between experiences and new learning helps adult learners find relevance in the learning and may impact attitudes and motivation towards blended PD.

Experience plays a key role in the learning process of adults taking courses in online environments (Conaway & Zorn-Arnold, 2016). When instructors thoughtfully integrate discussion questions and prompts which encourage constructing knowledge or demonstrating understanding, adult learners can draw upon background experience from all areas. Allen (2016) recommended online course instructors design courses which 1) appeal to the needs, life
experiences, and interests of adults; 2) help learners construct meaning, rather than transmit knowledge superficially; 3) encourage peer-to-peer and student-to-teacher interactions; and 4) create real-world tasks with practical applications and assessments. Lister (2014) argued online methods for engaging students have some of the same characteristics of traditional teaching techniques. A meta-analysis of trends in e-learning and online learning course designs and concluded there are four main considerations when designing courses: 1) implementing learning strategies to increase engagement, 2) organizing course content, 3) fostering collaboration and interaction, and 4) delivering prompt and meaningful feedback (Lister, 2014).

Andragogy is one of the most well-known theories on adult learning which addresses specific needs of adults. The theory purports there are significant differences in learning characteristics between children and adults. There are basic principles which, when applied to adult learners, may address specific needs, experience, and expertise adults already possess. Online instruction has developed some structures which appear to be synonymous with online learning such as discussion boards. Originally, academic leaders and faculty were worried online courses would take away the social and interactive elements which face-to-face courses provide. Aksal (2011) constructed an evaluation tool to assess online learning and found discussion boards can sufficiently and successfully promote social interaction in online environments. These tools benefit adult learners by providing diverse interpretations and sharing of ideas (Conaway & Zorn-Arnold, 2016).

Another strategy for supporting adult learners is to provide choices of assignments. Choices may regard content, activities, or products which are used to demonstrate understanding. Zorn-Arnold and Conaway (2016) indicated choice appeals to mature learners who desire practical applications and have goals in mind for learning. Dubas (2016) claimed meaningful assignments can enhance motivation of adult learners and quality of learning. When assignments
provide real-life experiences which meet individual needs, learning may be considered more relevant and useful for future use in professional lives.

Students, who are active in the learning and feel part of the community, may collaborate, express ideas and share knowledge (Chen & Chiou, 2014). Chen and Chiou (2014) further noted even if teaching methods and materials are not completely compatible with a student’s learning style or personal preference, those with motivation will continue to learn, and when teaching materials are customized to best fit a student’s learning style, the student will learn faster and easier. This does not mean the learning has to be easy. Tainsh (2016) argued online learners need higher-level thinking activities and should be able to problem solve and think critically when working.

During a face-to-face portion of a blended course, learners should participate in project-based activities where collaboration and real-life applications occur. An online instructor should be sensitive to learning styles, physical limitations, and cultural aspects of the learner. The face-to-face instruction supports the learner and provides a sense of belonging not found online. Although online learning typically takes place in isolation, adult learners desire a sense of accomplishment, want to feel validated, and like to be challenged to perform at high ability levels. The blended learning community has potential to overcome feelings of isolation and provide technical, social, and emotional support for adult learners.

The online environment, whether blended or fully online, meets needs of adults who prefer to be self-directed and autonomous while learning (Conaway & Zorn-Arnold, 2016). Conaway and Zorn-Arnold (2016) stated adults who learn online have tremendous power over the learning and can dictate what, when, and how to learn, but this freedom and choice can be challenging for distracted, busy, or otherwise disengaged learners. Directions for assignments and activities may have to be interpreted without the benefit of seeing them first-hand, and
deadlines may need to be met without verbal reminders. The lack of interference from a face-to-face instructor may be beneficial in helping adults gain confidence and be more reflective during the learning process. Rotar (2017), argued adult students may not always be self-directed. Adult learners may want clear directions and prescriptions for learning particularly when working online. A phenomenological study of an online CoP which uses blended learning techniques could contribute to these findings.

**Communities of practice for adult learners.** Communication and collaboration in a CoP may be viewed as a social learning system (Wenger & Trayner-Wenger, 2015). Implementing and maintaining a CoP may help support and encourage adult online learners. Johnson (2013) discussed how online learners require some help and modeling to become self-directed and concluded the technology is not what is most important; the habits developed by online instructors for consistent and clear communication, empathy for learners, and providing prompt feedback are key factors in promoting a successful online learning experience. Feedback and instructor presence are more important than the quantity or quality of an instructor’s comments. An online instructor must model being present by regularly interacting with students in the course (Richardson et al., 2015).

Huss et al. (2015) conducted a case study of teacher educators and found participants were unconcerned about communicating with colleagues on a regular basis. There were barriers to communication which would not have been a problem in a face-to-face setting. Face to face learners, on the other hand, could feel like part of a community of learners just by attending class to hear and learn directly from the instructor and can pick up on tone and verbal clues to enhance understanding (Johnson, 2013). These nuances of the lesson and delivery of content could then be applied to participants’ own classrooms.
Costello and Welch (2014) found a key aspect of online teaching is creating and nurturing a sense of community to break down barriers to learning including feelings of isolation and lack of motivation to complete assignments. Tay (2016) found the face-to-face portion of a blended learning course was a motivating factor for adult students to keep up with online assignments. Although the online environment and face-to-face components of blended learning contribute to adult learning, the knowledge of how, why, and to what extent certain methods impact learning has not been thoroughly investigated. Online communities for blended PD have potential to overcome barriers to online learning and could motivate adult learners. There is more research needed in this area.

**Counterargument: Challenges for adult learners.** Kamolodeen and Jameson-Charles (2016) noted although access to learning has been increased by use of online technologies, barriers to participation remain. Students may suffer from lack of time, motivation, and technological resources. Adult learners may feel disengaged and unmotivated to complete assignments or lack the time and resources to participate. Although adult learners may be motivated to learn in online courses, the structure may be ineffective if the technology poses barriers to learning or causes feelings of frustration. Blieck et al. (2017) discussed the needs of adult learners in a qualitative study of e-learning from perspectives of students. The study indicated flexibility and accessibility are important to adults, and instructors should be transparent about the use of the online learning portion of the class, so the work does not overwhelm or discourage learners. One challenge faced by online instructors is to enhance engagement of learners without making the combination seem like more work than a solely online or solely face-to-face course.

Aksal (2011) found what is lost in online courses compared to face to face courses is the built-in discipline of having to put aside a certain time for the course each week. Nash (2015)
corroborated these findings and concluded online education, including blended learning, loses structure and may impact time to learn the content and complete assignments. Liu and Li (2012) found adults could benefit from online learning with proper support when there are special considerations for technical needs and abilities of participants. Jones et al. (2016) noted how technology and online tools may be used to establish on-going communication as community members write and respond to each other for motivation and encouragement.

Blended learning has potential to combine the best of online and face-to-face instruction, but there are concerns technology may not be used effectively. In some cases, instructors or educational leaders may not be willing to use online tools (Seaman et al., 2018). Holmes and Prieto-Rodriguez (2018) examined the quality of online learning with pre-service teachers within an LMS and concluded course developers should consider accessibility and interactivity when designing online environments. Online courses should be developed with the learner and the content in mind. The proposed research of a blended PD course for K-12 practicing teachers using an LMS may inform instructional designers and make recommendations for effective course design.

**Methodologies of Related Studies of Blended Learning**

Studies of online blended learning have primarily used qualitative analysis of students’ and instructors’ perceptions of learning environment to determine effectiveness of online environments. Atef and Medhat (2015) conducted a case study of blended learning to enhance educational training (professional development) and determined there is potential for blended learning to make training more convenient and engaging for learners. A qualitative study with interviews by Blieck et al. (2017) identified a framework for blended learning based on perspectives of students which noted challenges and benefits of blended learning for adults. DeNisco (2014) used a quasi-experimental design with a pre-test/post-test and questionnaire for
in-service teachers involved in professional development to determine teachers’ perceptions of learning. Jones et al. (2016) conducted a case study with survey which addressed professional development using online courses and CoPs. Each of these studies have design elements which could be used in future research of online professional development for K-12 practicing teachers.

Nguyen (2015) conducted a meta-analysis of research studies posted on nosignificance.org as an indicator of the evidence of effectiveness of online learning and found about 92 percent of all online learning research studies concluded online education is at least as effective as face-to-face learning in a traditional format. The research suggested scholars conduct more research comparing the two practices to counter-balance earlier studies which indicated no significant difference between effectiveness of online courses and face-to-face courses. On average, the study indicated students in an online format performed modestly better than those in traditional courses. Nguyen (2015) challenged these findings and posited the older research was poorly designed, limited in scope, and lacked sound research methods. Nguyen further called for more structured methods to study a variety of online learning contexts including blended learning. Noon (2018) suggested phenomenology may be a useful methodology for researching individuals or groups. A phenomenological study of K-12 practicing teachers could help to fulfill this research gap.

**Research Gap**

Although blended learning in K-12 schools and districts is increasing and continual growth in K-12 blended learning environments is projected, empirical research on blended learning in K-12 settings continues to be limited (Halverson et al., 2014; Means et al., 2010). As distance learning opportunities increase in both higher education and K-12 settings, more research on effectiveness of online techniques, including blended PD, needs to be done. Over one third of all higher education students take at least one distance learning course (Seaman et
al., 2018). This number indicates adult learners in higher education are motivated to take online courses, yet few studies address the desires of teachers as adult learners to participate in blended PD within K-12 public education settings. When considering impact and effectiveness of blended learning of adult learners, especially in-service teachers, more research is warranted.

**Chapter Summary**

Chapter 2 shared a literature review of studies related to blended learning for professional development of K-12 practicing teachers. The problem and purpose for a proposed phenomenological study of an online Community of Practice were provided along with the background of blended learning and its role in online education. The review included an analysis of research articles, description of a conceptual framework, and information on research topics of blended learning, Communities of Practice for professional development, and adult learners. Chapter 3 will describe a research plan, provide theoretical background of hermeneutic phenomenology, outline research procedures, and identify research design elements for conducting a qualitative phenomenological study of professional development for K-12 teachers using blended learning methods.
Chapter 3: Methodology

Literature on blended learning primarily focuses on higher education settings and students enrolled in higher education institutions, but there is a call for more exploration of blended learning in K-12 settings (Blitz, 2013). Despite on-going investigations of blended learning, there is a need to study the impact of blended PD of teachers in K-12 settings (Means et al., 2010; Nguyen, 2015; Suprabha & Subramonian, 2015; Tay, 2016). To keep up with the demands of a technological society and encourage collaboration among teachers, school systems have been charged with providing flexible, affordable, and efficient professional development (Darling-Hammond, 2015). Blended teaching methods have potential to improve the professional development experience of teachers and reduce the barriers of time, space, and pace (Blitz, 2013). This research study examined the experiences of K-12 practicing teachers in Maryland who participated in a Community of Practice (CoP) within a blended learning environment to provide an in-depth look at teachers as adult learners.

The goal of this phenomenological study was to examine teachers’ attitudes towards blended learning, teachers’ perceptions of the effectiveness of blended learning within a CoP, and teachers’ motivation for participating in blended PD. The research study focused on K-12 teachers in a public-school setting. Creswell and Creswell (2018) noted qualitative researchers can learn the meanings and perceptions participants hold about a problem or phenomena being studied while attempting to develop a complex holistic view of the issue being studied. Information provided by this study could be used to impact the way staff development is conducted in K-12 settings. Sohn et al. (2017) discussed how phenomenological researchers begin with a meaningful question and curiosity about a topic. This study proposed to fill a gap in the literature with three research questions to address blended PD for K-12 practicing teachers.

Research Question One: How does blended learning impact teachers’ attitudes towards
professional development?

Research Question Two: How do K-12 practicing teachers perceive effectiveness of blended learning for professional development within a Community of Practice?

Research Question Three: What motivates teachers to participate in blended learning professional development?

Chapter 3 presents the research design and rationale for a phenomenological study of blended PD for teachers, background on phenomenology, and information about the researcher’s role. The section on research procedures describes how participants were selected and precautions taken to ensure ethical and fair treatment of human subjects. Instrumentation will be explained and methods for data analysis using manual coding of participants’ responses to an online questionnaire and interview questions, will be provided. Considerations for maintaining reliability and validity will include a discussion of measures taken to ensure dependability and confirmability of findings (Neuman, 2014). Ethical procedures will be outlined, and a chapter summary will provide an overview of how the research subjects, data, and results will be treated.

**Research Design and Rationale**

Phenomenology is appropriate for educational research to develop a larger meaning about the phenomenon or experience (Creswell, 2014; Glesne, 2016). Teachers who participate in blended learning within a CoP may have a different perspective of professional development than teachers who participate in a traditional workshop model of face-to-face professional development. Cilesiz (2011) noted investigating individuals’ experiences with technology is consistent with phenomenology. This research study was comprised of an online questionnaire and semi-structured interviews. These instruments allowed teachers to share perceptions of participating in blended learning, as well as provided an understanding of teachers’ attitudes towards the methods and motivation for participating in blended PD (Seidman, 2013).
The research design included use of an online questionnaire in Microsoft Forms and semi-structured interviews of consenting participants using Zoom online webinar software. Microsoft Forms provided a secure method for gathering participants’ responses outside of the LMS. This design permitted participants to share opinions, attitudes, and comments on the blended learning experience without interfering in course activities or influencing grades. 

Denzin and Lincoln (2018) suggested qualitative research could involve a collection of a variety of materials. Glesne (2016) posited qualitative researchers seek to make sense of narratives and actions with a hope to get a better understanding of the experience. By collecting responses from a questionnaire and interviews, the research was designed to understand the blended learning experience from the point-of-view of participants (Seidman, 2013).

Hermeneutic phenomenology espoused by Heidegger (1996), includes analysis and interpretation of the phenomena experienced by the participants (Padilla-Díaz, 2015; Vagle, 2018; van Manen, 2016). The method requires an ability to be reflective, insightful, sensitive to language, and constantly open to experience and discovery (van Manen, 2016). Van Manen (2016) provided a six-step approach to hermeneutic phenomenology which included 1) turning to the nature of lived experience and formulating a research question, 2) investigating the lived experience, 3) reflecting on the essential themes, 4) describing the phenomenon by writing about the thoughts, feelings, and attitudes of the participants, 5) staying oriented or focused on the phenomenon, and 6) balancing the research context and measuring the overall design of the study. Molley et al. (2018) further defined these steps as outlined in Table 2.
Table 2

*Van Manen’s Six-Step Approach to Hermeneutic Phenomenology*

<table>
<thead>
<tr>
<th>Steps</th>
<th>Definition</th>
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<tr>
<td>1. Turning to the nature of lived experience</td>
<td>Formulating a research question.</td>
</tr>
<tr>
<td>2. Investigating experience as we live it</td>
<td>The phenomenon is captured through methods of investigation (e.g., interviews, focus groups).</td>
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<tr>
<td>3. Reflecting on the essential themes which characterize the phenomenon</td>
<td>The overall meaning of an informant’s experience is sought when reflecting on the themes.</td>
</tr>
<tr>
<td>4. Describing the phenomenon in the art of writing and rewriting</td>
<td>Through the process of writing, the intention is to make visible the feelings, thoughts, and attitudes of the informants.</td>
</tr>
<tr>
<td>5. Maintaining a strong and orientated relation to the phenomenon</td>
<td>The researcher must strive to remain focused on the research question.</td>
</tr>
<tr>
<td>6. Balancing the research context by considering the parts and the whole</td>
<td>The researcher is asked to “constantly measure the overall design of the study.”</td>
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The research design incorporated the use of an open-ended questionnaire to highlight the participants’ descriptions of the experience; while semi-structured interviews allowed for a more in-depth and personal analysis of the phenomenon. Cypress (2018) outlined the indicative process of conducting interviews and explained how phenomenological studies use broad open-ended questions to draw out the participants’ interpretations of the experience. Specific questions addressed the perceptions and needs of adult learners outlined by Knowles (1984) and effectiveness of the blended learning environment for professional development. Qualitative analysis of questionnaire responses and interviews served to triangulate data (Creswell & Creswell, 2018; Cypress, 2018; Glesne, 2016). Responses from both data-collection instruments
were analyzed for themes regarding participants’ learning and reflections on the experience.

Five Pillars of Online Learning, as identified by Online Learning Consortium (2018), were considered when developing questionnaire and interview questions. Pillars one through three are foundational beliefs which benefit self-directed and motivated adult learners. These include 1) learning effectiveness, 2) cost effectiveness, and 3) accessibility (Knowles, 1984). Pillars four and five address satisfaction with the online experience (Cilesiz, 2011; Suprabha & Subramonian, 2015). Knowles (1984) noted adults are problem-oriented and prefer learning when information received can be immediately applied. Conclusions may be drawn, which address needs of teachers participating in blended PD, and lead to new methods of professional development. This information may be transferable to school systems with a desire to incorporate blended PD opportunities for staff.

Wenger, in Blackmore (2010) noted engagement in a CoP can be viewed as a social learning system and involves a dual process of meaning making from members who are connected by common content and knowledge about a topic with a desire to grow and extend knowledge. The online community constitutes the “life-world—the world as we immediately experience it” (Husserl, 1937). Participants in CoPs engage in conversations regarding community learning, reflections on individual beliefs, or domain-based activities. Conceptual artifacts, such as reflections and stories, help to make meaning of experience from the point of view of participants. Moustakas (1994) discussed the importance of participants as co-researchers in a phenomenological study. Teachers who consented to participate in the research helped to explore the topic. The study of blended PD in a school system provided reflections and quotations from teachers which represented participants’ experiences within a blended learning platform. The findings may help develop a deeper knowledge of the impact of blended learning on professional development of teachers in K-12 settings.
Hermeneutic phenomenology is appropriate to study the lived experiences of K-12 practicing teachers using blended PD within a CoP (Yüksel & Yildirim, 2015). Hermeneutic phenomenology is focused on the interpretation of the stories, as provided by subjects, in participants’ own words (Kafle, 2013). Within this situated context, the online community embodies the experiences of teachers as adult learners and serves as the life-world explained by Heidegger (1996). By interpreting and analyzing the online experience, the impact of blended PD on adult learners could be shared.

Qualitative research permits exploration of the meaning of phenomenon from the point of view of participants (Arghode, 2012; Creswell & Creswell, 2018; Glesne, 2016). This study included a questionnaire and semi-structured interviews with teachers who participated in blended PD within a CoP. There were multiple perspectives and experiences shared by participants. The study was necessary to develop methods for effective professional development and better understand the needs of teachers who participated in blended learning courses.

The benefits of this phenomenological study are teachers who consented to participate were able to share personal experiences and elaborate on benefits and drawbacks of blended PD. Teachers who were interviewed were able to share thoughts and experiences following the course. These contributions to educational research and benefits to teachers as professionals, outweighed any risks. Upon publication, research findings will be shared with participants, school system leaders, and other agents, who could influence future design and offerings for online and blended professional development.

Role of the Researcher

This phenomenological study was conducted using a questionnaire and interviews to understand the lived experiences of teachers enrolled in blended professional development. A
social constructivist view was used to guide the study. According to Denzin and Lincoln (2018), a social constructivist seeks to understand the world where they live and work. Researchers who follow this interpretive framework ask broad questions and position themselves to acknowledge how personal, cultural, or historical experiences aid in the interpretation and understanding others have about phenomena (Cypress, 2018; Glesne, 2016). The hermeneutic phenomenological framework promotes sharing narratives of individuals’ lived experiences with an emphasis on interpretation, not just description (Creswell & Creswell, 2018). This study employed an interpretive hermeneutic phenomenological framework developed by Heidegger who provided the basis for existential phenomenological studies in the social sciences (Heidegger, 1996; Vagle, 2018; van Manen, 2016).

The hermeneutic process involves interpreting and analyzing the lived experiences of others, while acknowledging interpretation is not an isolated activity. Moustakas (1994) discussed how investigators and participants are co-dependent and serve as co-researchers during phenomenological study. The goal of the method is to understand the lived experiences of phenomena from the perspective of those who experience them (Creely, 2018; van Manen, 2016). There was an expectation some participants may have had prior knowledge and/or experience with online learning but may or may not have had experience with blended learning prior to the course studied. These experiences were analyzed in context of blended PD experience. According to Cypress (2018) qualitative interviewers should have a genuine respect for knowledge and understanding co-researchers share about the phenomenon. Participants’ time and professional knowledge were considered when developing questions and conducting interviews. Reflective interpretation of phenomenon permitted the substance and essence of the experience to be readily interpreted and understood (Creswell & Creswell, 2018; Cypress, 2018).
Phenomenological researchers may prescribe to the idea of “bracketing” or putting one’s ideas aside. In this way, ideas of an individual conducting research are not subjected onto individuals being studied. Sohn et al. (2017) countered, although scientific researchers should set aside theory and preconceived ideas when interviewing participants, educational researchers should embrace these connections. Knowledge of teaching and learning can enhance interactions and interpretations in analysis of research. In educational research, the goal is to “bring alive the voices of teachers and students which may lead to expanded research based on such perspectives that may be influencing the efficacy of certain pedagogical practices” (Sohn et al., 2017, p. 141). The bridling process, as explained by Dahlberg and Dahlberg (2003), allows for reflection and analysis throughout the study. This research method includes honoring and acknowledging one’s judgements, so they do not compromise the analysis and conclusions drawn by the researcher, so one does not arrive at understanding too quickly or carelessly (Vagle, 2018).

As this study relied on purposive sampling of blended learning courses scheduled within a school system where the researcher served as an instructional leader and online instructor, participants may have been known either professionally or personally; however, the possibility was minimal and any relationships with participants were disclosed and not a factor in the study. There was no access to course information or knowledge of potential participants in the purposive sample pool prior to the study. Purposive sampling is widely accepted in qualitative research to provide a pool of participants who have a deep understanding of a related experience (Creswell & Creswell, 2018; Plano Clark & Ivankova, 2016). By completion of the study, nine out of the 57 participants, were identified as known colleagues, none were subordinate, and previous relations did not influence or impact the results of the study.
Although the researcher has served as Moodle Administrator to set-up courses, which involves basic entry of course materials designed by a team of instructional specialists as function of course production, prior to course going live, no involvement in any course activities passive or otherwise took place during the study. At the completion of non-research related responsibilities, prior to conducting data collection, access to Moodle was removed in any capacity and the administrative password was reset and known only by Director of Staff Development. To ensure no possibility of unintentional risk, there was no access in any capacity, and all administrative duties were turned over to Director of Staff Development for the duration of the research study.

The research study was made known to the participants by email at completion of the course and did not contribute to discussions or influence course activities in any way. The study included a questionnaire housed separately from courses in Microsoft Forms, which was accessed after completion of course by potential participants, who first viewed the recruitment letter. The letter contained a link to the questionnaire and consent form. The final question asked whether subjects were willing to be interviewed. Interviews took place with consenting participants who responded to the questionnaire and agreed to be interviewed. Interviews followed a protocol for ethical research which included maintaining privacy through use of Zoom webinar software and utilizing questions piloted by an expert panel review (Appendix G). Protocol included not interfering with course activities or revealing personal information when recording responses of participants. For this research study, the research data was collected after course completion.

Following Internal Review Board (IRB) approval, there was a call for participants. A recruitment letter (Appendix C) was sent to the Director of Staff Development to distribute after each course had ended. Consent forms and data from the questionnaire were collected in
Microsoft Forms. Potential participants had the option to answer call for participation by accessing a secure link to questionnaire and consent form housed in Microsoft Forms. Results did not contribute to course interactions or influence grades. There was no threat to potential participants. Instructors were not included in the study and did not see the results of the consent form or questionnaire responses completed by blended PD students.

Yilmaz (2013) posited qualitative inquiry is people-oriented and qualitative researchers are permitted to get close enough to participants to see what takes place and hear what is said. A researcher may spend an extended amount of time with participants to fully interpret the meaning of the experience. In order to understand the perspectives of participants in this study, online interviews using Zoom were conducted. Interviews were recorded and sent out for transcription. Vagle (2018) noted a phenomenological researcher is not limited by technique, process, or tools when working. The study of human characteristics and experiences affords itself many modes of description and interpretation.

The study commenced immediately following IRB approval by contacting the Director of Staff Development who in-turn emailed blended learning course instructors and students. Potential participants received a recruitment letter and link to a consent form and questionnaire. Participants had an option of completing the questionnaire outside of the course in Microsoft Forms. There was no direct contact with participants and no access to the course during the professional development experience. The only purposeful contact with participants was with those who provided contact information and who were willing to be interviewed. Interviews were conducted using Zoom webinar software. Participants were told interviews would be recorded and a third-party transcription service would be used to transcribe the interview.

Any professional relationships with interviewees were disclosed and cited in the conclusions and limitations section of the study. No incentives or remunerations accompanied
the study. Guidelines provided by experts in the field allowed the for analysis and interpretation of findings without bias or threat to credibility of conclusions (Yilmaz, 2013).

Creswell and Creswell (2018) outlined the steps for qualitative researchers to follow to ensure phenomenological analysis is reliable and credible. The first step in a hermeneutic phenomenological study with a goal to interpret participants’ understandings, is to acknowledge and disclose personal experiences, judgments, or prejudices towards the subject. The researcher acknowledged experiences with blended learning from the perspectives of both an instructor and a student in a researcher log. The activity, known as reflexivity, includes commenting on past experiences within fieldnotes and reflecting on whether these experiences shape interpretations (Creswell & Creswell, 2018; Dahlberg & Dahlberg, 2003). Analysis included an outline of experiences with blended PD, comments about knowledge of blended learning and online environments, knowledge of use of an LMS for teaching in a blended environment, information on the topic of blended learning gained outside of the study, and disclosure about any relationship with the participants. Further steps will be outlined in the research procedures section of Chapter 3.

**Research Procedures**

Prior to the study, an application was filed with Department of Research and Assessment of the public-school system (Appendix A). Next, a proposal and application to conduct research was developed and sent to the IRB at American College of Education (ACE). The research proposal addressed research procedures and protection of human subjects. Before conducting research, permission was obtained to conduct study in the school system setting (Appendix B). Once IRB approved the study, the certificate of approval was filed with Department of Research and Assessment for the school system and the call for participants began. An electronic recruitment letter was provided to Director of Staff Development, then distributed to course
instructors and students at the conclusion of each course (Appendix C). The letter included a link to the consent form (Appendix D) and questionnaire in Microsoft Forms (Appendix E).

**Population and Sample**

Target population of study included participants who had enrolled in blended learning courses which ended during the spring or summer term within a large school district in southern Maryland. An estimated population sample was expected to reach as high as 300 from courses which ended within the timeframe required by the research. The first call for participants included 320 participants. During a second call over 400 potential participants were informed of the study; however, the exact number was not disclosed by Director of Staff Development. The sample was limited by participants’ option to participate, as well as willingness and availability to respond to the questionnaire and participate in interviews during the summer break. Each blended learning course took place within a pre-established CoP. All courses included face-to-face meetings and used an LMS for online activities such as discussions, reflections, and assignments.

Padilla-Díaz (2015) noted how samples of participants in phenomenological research are generally chosen through purposive sampling. Plano Clark and Ivankova (2016) noted to obtain insights into a phenomenon rather than to generalize to a population, participants are purposefully selected to participate in phenomenological studies. Generalizability of findings and representativeness of the general population is not a concern (Creswell & Creswell, 2018; van Manen, 2016). The purposive sample for this research was characterized by self-enrollment in a blended PD course, participation in a CoP, and willingness to consent to participate in a research study.

At the end of course, participants received a recruitment letter and consent form. If consent was granted, participants were given the opportunity to respond to a questionnaire. The
initial question was whether the participant completed the course and fulfilled all course requirements. Those who stated no, were not included in the research sample. Those who responded yes and who provided an email address, were contacted. Of the consenting participants, 16 teachers were selected to participate in online, semi-structured interviews regarding the experience. Creswell and Creswell (2018) cited three to ten participants are enough for a sample size in phenomenological research, and ACE IRB required a minimum of 15 participants in the sample.

Blended learning students could opt-in to the research. Those who did not wish to participate were not required to respond to the questionnaire and were not included in the study. As the research took place after the courses were completed, those who did not choose to participate, were able to remain in the course and were not affected. Participants’ confidentiality was maintained through use of a coding system. Records including, but not limited to, questionnaire responses, recordings, and interviewers’ notes were kept in a secure Dropbox file visible and accessible only for the duration of the study.

Instrumentation

Prior to study, IRB approval and consent were obtained, and an expert panel reviewed questionnaire and semi-structured interview questions. A literature review of related research did not uncover a related research topic of blended PD for K-12 practicing teachers; therefore, new questions were created to address purpose of the study. An expert panel commented on clarity and appropriateness of questions, and the questions were revised as necessary. Questions were developed with input from the expert panel for the purpose of gaining teachers’ insight to the blended PD as adult learners are shown in Appendix E. Jones (2014) cautioned qualitative questions should not lead participants to respond a certain way. By employing an expert panel, questions were expected to be more reliable, valid, and transparent. This preparation also helped
to prevent bias and promote content validity of the research topic.

Questionnaire responses were reviewed and used to determine interview participants. Participants who responded thoroughly to questions, indicated a willingness to be interviewed, and provided an email address, were contacted. Semi-structured interviews took place within a few days of receiving responses. The questionnaire addressed demographics such as: number of years teaching, prior experience with professional development, prior experience with online or blended learning, and highest degree obtained which were used in analysis (Appendix E). Sohn et al. (2017) noted how studies may include simple demographics and have from 5-20 participants depending on the amount required to obtain saturation. According to Creswell and Creswell (2018), a researcher prepares and organizes documents to analyze them for themes using coding and descriptive analysis.

The questionnaire and open-ended questions for the interviews were similar in content but varied in scope. The questionnaire served to ask general questions about attitudes, perceptions, and motivations concerning blended PD, while the purpose of semi-structured interviews was to elaborate and provide richer descriptions of blended PD experience and impact on teaching (Appendix F). This approach was appropriate, as explained by Creswell and Creswell (2018), where interviews evolve from a few unstructured and generally open-ended questions to elicit views and opinions.

Results from the questionnaire were stored in password-protected Microsoft Forms outside of the course and able to be exported in Microsoft Excel to be saved in Dropbox. In addition, Dropbox housed transcripts and thematic analysis of data from interviews. Both data collection tools helped to triangulate data (Creswell, 2014; Cypress, 2018). A research log was kept in Microsoft One Note. Microsoft One Note is a secure password-protected tool which was used for the duration of the study. The log was kept to aide in the bridling process and on-going
analysis of research results and contained research procedures for auditing purposes which were used to record information to promote transferability of research procedures. This computer-based record-keeping allowed for an on-going analysis of the phenomenon and research process.

**Data Collection**

Data collection was done outside of the blended learning courses using Microsoft Forms to deliver a questionnaire and Zoom webinar software for conducting private interviews. Data were collected from the questionnaire for three weeks from July 15, 2019 through August 2, 2019. Research was approved by Department of Research and Assessment and Director of Staff Development who were informed of intent and purpose of the research. The Director of Staff Development assumed all administrative duties for Moodle LMS for the duration of the study. Recruitment letter (Appendix C) was provided to Director of Staff Development, who forwarded the information to course instructors and potential participants after courses were concluded. The research only included responses from consenting adults. Subjects were told a third-party transcription service, NVivo, which is secure and vetted, would be used. Research log, responses to questionnaire, and results of the coding process, were secure and unable to be accessed by anyone outside of the study. Data collection and meaning making took place simultaneously within the timeframe required to reach saturation (Qutoshi, 2018). Use of a researcher log and analysis of findings contributed to study.

Questionnaire responses were retrieved and coded daily during the three-week collection period. Participants were assigned pseudonyms Teacher 1-57 based on order in which consent was received, to preserve anonymity. Consent for interviews were included in a discussion protocol for conducting online interviews. Those who did not wish to contribute to interviews were not contacted. Of the 57 participants, 16 were willing to be interviewed, and provided an email with which to be contacted. Any participants who had indicated not finishing the course
were not included in the analysis.

Interviews were scheduled in Zoom webinar software, and links were emailed to conduct interviews at an agreed upon date and time. Interviews were scheduled over the three-week period commencing on July 18, 2019 and ending on July 31, 2019. At the start of the interviews participants were reminded a third-party transcription service, NVivo, which is a secure online qualitative research tool for recording, transcribing, and saving interviews would be utilized. Interviews were conducted privately, lasted approximately 30 minutes, and were recorded in Zoom. Audio and written files of transcripts were stored within Dropbox, a secured personal file management system with password-protected access. Following interviews, participants were debriefed on the process of transcription and member-checking and each audio file was sent to NVivo transcription service at https://www.qsrinternational.com/nvivo/nvivo-products/transcription. Participants were informed responses may be viewed by members outside of the study and could be published in the dissertation.

Transcripts were collected from the website, edited, coded for key ideas, and sent to participants for member-checking (see Appendix J). Member-checking allowed participants to revise statements and confirm thoughts to ensure perceptions were accurately recorded (Birt, Scott, Cavers, Campbell, & Walter, 2016; Glesne, 2016). In addition, member-checking promoted validity of research (Creswell & Creswell, 2018). The final approved transcripts were saved in Microsoft Word and coded for themes using comment boxes. Following transcription coding, themes were added to a Microsoft Excel Spreadsheet and organized by research question. Excel spreadsheet served as a repository for all research responses, in vivo codes, and thematic analysis. Transcripts were kept securely within NVivo and in Dropbox on a password-protected personal computer.

A research log, which recorded reflections and notes, was kept in Microsoft One Note
and saved on a secure network. The log contained daily reflection and analysis of research findings. Notes were kept of email communications with Director of Staff Development or participants, interview schedules, research procedures, and reflections. The log also served as an audit trail describing research procedures.

A qualitative researcher must be able to deeply examine the subjects without influencing the outcome (Yilmaz, 2013). Use of a daily log encouraged bridling, or constant interpretation and analysis of data, so any preconceived ideas or judgments were exposed (Dahlberg & Dahlberg, 2003; Vagle, 2018). Dahlberg and Dahlberg (2003) named this ‘bridling process,’ from horse-riding terminology. The term signifies knowing when to ‘rein in’ and when to ‘ease up’ so interpretation of the phenomenon can occur naturally and with fidelity. Researchers should take care to avoid intentionally or unintentionally influencing the outcome.

During the course, there was no contact made with participants and there was no access to course activities or information. All data was collected after each course had ended. A link to consent form and questionnaire was accessed by participants from an email sent by Director of Staff Development. Participants were informed of the purpose of the research study and given the option of providing contact information to allow for follow-up of research results or remaining anonymous. As participants completed the questionnaire, responses were saved in Microsoft Forms and exported to a Microsoft Excel document saved in password-protected Dropbox for coding and analysis. Responses were only able to be viewed and results did not have any bearing on grades or evaluation of participants.

At the conclusion of the study, all files were backed up and removed from the school system network. Research log was saved in Microsoft One Note until the dissertation was approved, then moved to an external drive and kept in locked file cabinet to secure. At the end of three years, all research data will be destroyed as required by the IRB.
Data Preparation

All responses to the questionnaire were collected in Microsoft Forms and exported into Microsoft Excel. Interview transcriptions from the audio transcription service were kept in Microsoft Word, reviewed for accuracy, and any errors were noted and corrected. During consent, participants responded whether they had completed all course requirements. Any participants who did not complete the course were not included in the research sample. Reasons for non-completion may have included, but were not limited to, not completing assignments, absence, or voluntary withdrawal. As the research took place following the course, students’ progress or completion of the course were not impacted and there were no repercussions for declining to participate in the research study.

Vagle (2018) posited when conducting phenomenological research “any technique, process, or tool is fair game” (p. 18). Although phenomenological researchers often employ unstructured interviews and lived-experience descriptions or interpretations, other techniques consistently used in phenomenology include observations, narratives, text analysis, and more (Vagle, 2018). Data may be prepared and narrowed down into 25-30 categories of codes, then 5-6 themes to make analysis more manageable (Creswell & Creswell, 2018). This practice may include focusing on some data and disregarding other parts, known as data reduction (Creswell & Creswell, 2018; Cypress, 2018). In this study, key terms from a questionnaire and transcripts were recorded, organized by research question, and narrowed down into themes.

Data reported in the study did not disclose any personal information and was categorized and coded for each participant within Microsoft Excel and stored in secure Dropbox file. Seven participants chose to remain anonymous but still provided email addresses to be contacted and to participate. All participants and contributors to the study were provided an email contact,
thanked for participating in the study, and offered the opportunity to follow-up after dissertation is approved and published.

**Data Analysis**

According to Saldaña (2016), data analysis includes looking for themes, coding, and creating thematic labels. Cypress (2018) added themes are developed to match analytic framework in the literature. Creswell and Creswell (2018) cautioned researchers should take care to treat themes equally. The procedure may involve using memoing to capture ideas, highlighting noteworthy quotations, creating diagrams to display relationships, counting frequency of codes, and drafting summaries of findings. Themes provided valuable information to construct meanings of the essence of the teachers’ experiences with the phenomenon. Once themes were established, supporting statements or quotations were found to correspond with research questions and to provide a narrative of findings. The written narrative provided a description of the essence of the phenomenon as experienced by teachers engaged in blended PD.

Descriptions included perceptions shared by participants, attitudes expressed during interviews, and common elements found in teachers’ responses to the questionnaire. Data analysis included demographic data collected from questionnaire. Inclusion of demographic data is common in phenomenological studies to provide more detail in the descriptions (Sohn et al., 2017). Demographics such as number of years teaching, prior experience with professional development, prior experience with online or blended learning, and highest degree obtained were collected and analyzed. Inclusion of demographic data is common in phenomenological studies to provide more detail in the descriptions (Sohn et al., 2017). With this information, teachers’ motivation for participating in blended PD could be more fully interpreted.

Saldaña (2016), recommended preparing and organizing data, then analyzing for themes
using coding. Descriptive and in vivo coding procedures were used to analyze responses. Coding for questionnaire responses was done within excel over the three-week research timeframe; interview transcripts were coded in Microsoft Word by adding comment boxes by hand immediately following the interviews which took place from July 18, 2019 through July 31, 2019 and completed on August 3, 2019. Themes and codes provided valuable information to understand the essence of experiences. Descriptive coding summarized key ideas in the response, while in vivo coding used the participants’ own words to explain the phenomenon (Saldaña, 2016). Responses from questionnaires were then exported to Excel and interview transcripts were converted to Word to use the highlighting, tracking, and commenting features of the software for analyzing data (Belotto, 2018; Yin, 2014). Data collection provided foundation for summarizing and writing a narrative of the phenomenon. Triangulation of data from multiple sources promoted overall reliability and validity of the research discussed in the next section.

**Reliability and Validity**

Lincoln and Guba (1994) developed the terms dependability, confirmability, credibility, and transferability commonly used by qualitative researchers to discuss reliability and validity in qualitative research studies. This research will use the term dependability in place of reliability, as the research may not replicable in other settings. In qualitative studies, there is a range of data sources and measurement methods, so researchers may not be concerned about replication (Neuman, 2014). Qualitative research studies do not need to be repeatable, but the process of selecting, justifying, and applying research strategies, procedure, and methods must be clearly explained with an audit trail, or precise documentation of procedures (Creswell & Creswell, 2018).

Methods for ensuring dependability also included confirmability of findings. Measures of confirmability were expert panel review, member checking, reflexivity, and peer review (Birt
et al., 2016; Cho & Lee, 2014; Yilmaz, 2013; Yin, 2014). Vagle (2018) noted any technique, process, or tool which aids the study and illuminates the study is appropriate. Triangulation of data from questionnaire and interviews served to confirm findings and reduce likelihood of bias (Cho & Lee, 2014; Creswell & Creswell, 2018).

Validity is broken down into two distinct parts—internal and external. Credibility is the term used to represent internal truth; while transferability represents how the research can be applied in other situations (Cho & Lee, 2014; Lincoln & Guba, 1994). In this research study full disclosure of researcher log, member checking, and peer review addressed credibility of the findings. Member checking of initial coding promoted credibility of qualitative analysis of interview transcripts (Birt et al., 2016). In addition, an audit trail of qualitative procedures outlined in research log aided transferability to other research contexts. Sohn et al. (2017) discussed how findings of educational phenomenological research may be transferable if the essence of the meaning of the phenomena is important in the lives of other teachers and students. This study examined the phenomenon of blended PD so information from teachers’ experiences could be shared in other contexts to inform professional development practices in K-12 schools or school systems.

**Ethical Procedures**

This phenomenological study on blended learning in a K-12 setting included human participants. Prior to conducting any research, the IRB of American College of Education and the Department of Research and Assessment for the local school system, approved the study. Wester (2011) stated ethical research starts with the idea for research and “entails decisions made through the entire research process” (p. 301). The study followed guidelines for conducting research with human subjects, as explained in the *Belmont Report* (Department of Health, Education, and Welfare, 1979). Ethical considerations in qualitative research included informed
consent, confidentiality, and anonymity when utilizing human subjects.

An IRB approves all research studies documenting thorough evidence the studies follow research or ethical codes; without approval, the research would not be credible and able to be published (Neuman, 2014; Wester, 2011). Per ACE guidelines, an expert panel was consulted to review questions prior to use in study. Panel members were provided an informed consent document explaining role of reviewer (Appendix H). Eight reviewers agreed to rate questions based on Appendix G, Survey/Interview Validation Rubric for Expert Panel (Simon & White, 2016). The critique was used to revise final questionnaire and interview questions prior to conducting research.

Next, a purposive sample was drawn from teachers enrolled in professional development courses utilizing blended learning offered by the school system. Courses were ungraded but may have been taken for professional development credit. There were no conflicts of interest or power over participants and results did not influence the content or outcome of the courses (Moustakas, 1994; Yilmaz, 2013). In addition, there was no access to participants or courses while they were in session. Potential participants were contacted and informed of the study by the Director of Staff Development after completion of courses. The research only included teachers who self-enrolled in a professional development course and opted in to participate in the research study. Those who did not wish to participate were able to decline consent or simply not open and/or complete the questionnaire.

Participants were informed of the study by an email recruitment letter sent from Director of Staff Development which included a link to Microsoft Forms where the consent form and questionnaire were stored. Interviews took place after the course was over and after the participant had provided personal contact information and provided consent to be interviewed. Participants were not penalized if they chose not to respond to the questionnaire, and research
subjects were not named or identified in final dissertation. All research documents were kept private and secured within password-protected Dropbox as electronic files. Files will be destroyed after three years. All IRB guidelines for conducting research with human subjects were followed, and anonymity of participants was preserved. Tangen (2014) discussed even though balancing ethical values and quality of research may be challenging, the two are interdependent and serve to strengthen quality of the research.

Chapter Summary

Chapter 3 provided an overview of the phenomenological research methodology used in a qualitative study of teachers enrolled in blended PD within a CoP. The research design explained the study of blended learning for teachers within a K-12 public school system. Open-ended response items from a questionnaire and semi-structured interviews provided both a description of phenomenon and perceptions of blended learning for professional development from the point of view of teachers. The concept of adult learning addressed professional development needs of a purposive sample of K-12 practicing teachers, who were identified as co-researchers in the study (Moustakas, 1994). All guidelines of the IRB at ACE and the Research and Assessment Department of the participating school system were followed to protect human research subjects. There was no access to participants or courses and research events did not harm human subjects. Data preparation and analysis were conducted securely and followed procedures for qualitative research including audit trail, member checking, bridling process, and triangulation to assure credibility, transferability, confirmability, and dependability of findings. Manual coding of categories and themes from the data provided insight for analyzing content of the questionnaire and interviews. These themes and specific findings will be presented in Chapter 4 and discussed in Chapter 5.
Chapter 4: Research Findings and Results

The purpose of this interpretive phenomenological study was to investigate teachers’ lived experiences participating in a blended learning professional development (blended PD) course within a Community of Practice (CoP) for K-12 public school teachers in Maryland. Chapter 4 will provide information regarding data collection, data analysis, and results from a qualitative study. Ethical issues which relate to research will be discussed in context of qualitative procedures and findings. Results will include a discussion of themes which emerge from a questionnaire and semi-structured interviews with research participants. The following research questions will be addressed:

Research Question One: How does blended learning impact teachers’ attitudes towards professional development?

Research Question Two: How do K-12 teachers perceive the effectiveness of blended learning for professional development within a Community of Practice?

Research Question Three: What motivates teachers to participate in blended learning for professional development?

Results from the study will be used to inform school systems and instructional leaders about the impact of blended learning on professional development and may fill a research gap about blended learning professional development for K-12 teachers.

Data Collection

A total sample population was drawn from blended learning courses which ended during the spring or summer term for a suburban K-12 public school system in southern Maryland. Two courses, Formative Assessment for Maryland Educators (FAME) and Restorative Practices were considered for the study. Both courses were provided to enrich knowledge of best practices within a CoP of K-12 teachers and were offered for continuing professional development (CPD)
Recruitment was handled by the school system’s Director of Staff Development per IRB requirements. During initial recruitment, 320 teachers who had taken a blended learning course within a CoP for professional development were contacted. A second call for participants garnered over 400 in the total sample population of potential participants but the exact number was undisclosed by Director of Staff Development.

Participants opted in to participate in research study during the summer break for the school system. Data were collected using an online questionnaire in Microsoft Forms for three weeks from July 15, 2019 through August 2, 2019. By the end of a data collection period of three weeks, 57 teachers had responded to the questionnaire. Within the questionnaire, consenting participants could provide contact information to participate in online interviews. Interviews took place using Zoom webinar software from July 18, 2019 through July 31, 2019 and completed on August 3, 2019. At conclusion of the study, 16 participants had been interviewed.

Two participants admitted to not completing all assignments and had not been concerned about recertification credits, but still responded to all questions and had completed the course. These teachers were deemed eligible for the study. One participant accidentally responded to the questionnaire twice, so one response had to be excluded from the total number of participants. Table 3 depicts demographic data of research participants who met all the criteria to be included in the study. Data include participants’ highest educational degree earned, whether the course was taken for recertification credit, years of experience teaching, and previous blended learning experience.

**Data Analysis and Results**

Chapter 3 discussed research procedures followed to gather and analyze data for this qualitative study. Hermeneutic phenomenology allowed for interpretations of participants’
Table 3

Demographic data of research participants

<table>
<thead>
<tr>
<th>Highest Degree</th>
<th>Taking for Recertification</th>
<th>Years of Teaching Experience</th>
<th>Previous Blended Learning Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0-5</td>
<td>6-15</td>
</tr>
<tr>
<td>Bachelors</td>
<td>12</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Masters</td>
<td>26</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Masters + spec.</td>
<td>17</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Doctorate</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>14</td>
<td>26</td>
</tr>
</tbody>
</table>

Note. Master + spec denotes advanced study in administration, special education, or content area experiences in context of a blended learning CoP. Creswell (2014) and Glesne (2016) noted how phenomenology is useful in educational research to gain a better understanding of the phenomenon or experience. Van Manen (2016) developed a six-step approach which formed the basis of research procedure. Steps followed were 1) formulating a research question, 2) investigating the lived experience through investigative methods such as interviews, 3) reflecting on essential themes, 4) describing the phenomenon by writing about the thoughts, feelings, and attitudes of the participants, 5) focusing on the research question, and 6) considering the meaning of the parts and the whole by measuring the overall design of the study. The research design utilized a questionnaire to gather demographic data on professional experience, as well as participants’ descriptions of the phenomenon. Following the questionnaire, semi-structured interviews aided in gathering deeper insights into thoughts, feelings, and attitudes of participants.

The problem is teachers’ attitudes towards blended professional development, perceived effectiveness of blended professional development, and motivation to participate in blended professional development are unknown. Research questions for this study were aligned to the research problem and developed to address perceptions and needs of adult learners espoused by Knowles (1984), CoP and social learning theory (Farnsworth et al., 2016) and teachers’
motivations to participate in blended PD (Darling-Hammond, 2015; Fullan & Hargreaves, 2016). In order to investigate the lived experience of K-12 teachers who participated in blended learning within a CoP, questionnaire and interview questions were developed to align with the research questions. An online questionnaire kept in Microsoft Forms and semi-structured interviews allowed participants to share descriptions of the blended learning experience.

**Questionnaire Data Analysis**

Procedures for securing data and protection of research participants were outlined in a recruitment letter and consent form emailed by Director of Staff Development (See Appendix C). A questionnaire was developed in Microsoft Forms and kept on a secure network server for use in the study. Questionnaire responses were recorded in Microsoft Forms and exported to Microsoft Excel for analysis. There were 57 teachers who completed the questionnaire, which included two questions regarding consent, and eight selected response items to record demographics and prior experience with online or blended learning. Microsoft Forms displayed demographic data as circle graphs which were referenced to create Table 4 as well as figures depicting participant responses.

The remaining parts of the questionnaire addressed teachers’ perceptions of the phenomenon including attitudes towards blended PD, effectiveness of the blended course, and motivation for participating in blended PD. Four open-ended questions provided elaboration on selected response items which were coded according to research question. Data were exported into Microsoft Excel for coding and analysis. Spreadsheet cells containing responses were highlighted with three colors which linked the themes to research questions (see Figure 2). Descriptive coding included pulling out key ideas for each open-ended question. In vivo coding provided participants’ words exactly as recorded in the questionnaire form. Each column was then coded and organized by research question (attitudes = yellow, effectiveness = green,
motivation = blue). Answers which did not address the research questions were cleaned from the data during data reduction and were not coded (Creswell & Creswell, 2018).

![Table showing initial coding of open-ended questions from research questionnaire.]

**Figure 2.** Initial coding of open-ended questions from research questionnaire.

**Interview Data Analysis**

Interviews were conducted following a protocol which aligned to the purpose of the research study and helped to understand lived experience of participants and meaning made from the experience (Seidman, 2013). The questionnaire on blended learning allowed participants to voluntarily provide an email to be contacted for interviews. Zoom webinar software was used to meet with participants and record the conversations. Recordings were then downloaded into
password-protected Dropbox and sent out for transcription to NVivo transcription service. Once completed, transcriptions were downloaded and edited using Microsoft Word.

The comment feature of Microsoft Word was used for initial coding of interview transcripts and identified key ideas or concepts to share with participants (see Appendix J). Transcripts were then emailed confidentially within secure server to participants for member-checking. The ability to check accuracy of the transcription and see codes provided during member checking promoted credibility of interpretation of participants’ experiences not just editing of transcription errors (Birt et al., 2016; Glesne, 2016).

Key ideas from the member-checked participants’ responses were recorded in an Excel spreadsheet then categorized into themes according to research question (see Figure 3). During

<table>
<thead>
<tr>
<th>Attitudes</th>
<th>Benefits</th>
<th>Disadvantages/Challenges</th>
<th>Effectiveness</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL would not have taken PD if weren’t BL b/c it was a great deal of work and collaboration was important; content of the class was important; BL that meet too few times may as well be all OL; BL more beneficial than all online or all in the classroom setting; BL should be an option but</td>
<td>collaboration, personal, reflective, different perspectives, application, focused, deeper understanding</td>
<td>differed based on FTF setting, collaboration, clarification, discussion, support</td>
<td>self-paced, independent, flexibility</td>
<td>recertification, stipend, convenience</td>
</tr>
<tr>
<td>BL-I familiar</td>
<td>learning styles, flexibility, comfortable, opportunity, save time, different perspectives,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liked that it was a shorter course and had some components online—more manageable; if it had been all FTF it would’ve been too much of a time commitment; PD was one of the most</td>
<td>BL is shorter course, interesting, interactive, comfortable</td>
<td>conversation, interaction, instructors modeled strategies and motivated, new ideas, collaboration, express ideas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like being able to do the OL portion on own time and then have the time to be collaborative</td>
<td>technology, meeting deadlines</td>
<td>conversation, interaction, instructors modeled strategies and motivated, new ideas, collaboration, express ideas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OL could be passive, flexibility, collaboration, need for BL depends on the topic, usability, engaging</td>
<td></td>
<td>conversation, interaction, instructors modeled strategies and motivated, new ideas, collaboration, express ideas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FTF required preparation, some students may not do OL work</td>
<td></td>
<td>conversation, interaction, instructors modeled strategies and motivated, new ideas, collaboration, express ideas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 3. Snapshot of data collection from interviews.*
the second round of analysis, open-ended responses were labeled with in vivo coding. According to Saldaña (2016), in vivo coding is particularly useful for novice coders to prioritize and honor the participant’s voice. In vivo coding used participants’ words to convey thoughts and feelings which brought a deeper understanding of participants’ attitudes towards and perceptions about blended PD within a CoP.

Quotes were drawn from in vivo coding which elaborated on teachers’ attitudes and perceptions about the blended learning experience and contributed to a deeper understanding of the phenomenon from the point of view of participants. Teachers explained motivation for participating in blended PD, factors which contributed explanations of challenges encountered within the phenomenon, as well as other ideas pertinent to professional development of teachers. Together, these two techniques helped to triangulate data and answer research questions proposed in the study.

**Teachers’ attitudes towards blended learning for professional development.**

Research Question One addressed in Question 10 of questionnaire concerned teachers’ attitudes towards blended learning and asked, “Would you recommend taking a blended learning course to others needing professional development and/or credits?” (see Figure 4). Question 11 asked participants to explain why or why not. Descriptive coding was used to summarize the responses from open-ended questions into phrases. “A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldaña, 2016, p. 4). Initial codes were used to capture the essence of the participants’ attitudes towards the subject and a second round of coding identified key ideas (Saldaña, 2016). During the second round of coding, key ideas which emerged from the data were extracted and categorized according to research questions. Glesne (2016) recommended arranging codes to create a framework of related categories and
posed arranging and rearranging codes is part of the process of analyzing and making meaning from data.

Figure 4. Teachers’ recommendations for taking blended professional development.

Key ideas identified in participants’ responses included descriptions or attitudes towards blended learning for professional development, benefits of blended learning on the learner, and/or impact of blended learning methods on the effectiveness of the professional development experience. While the purpose of Question 10 was to discover whether teachers would recommend blended learning as a viable form of professional development to demonstrate an understanding of teachers’ attitudes towards the topic, in some cases there was overlap between attitudes and effectiveness (see Table 4). Of the 57 respondents, 65 percent (37 out of 57) cited flexibility or convenience as the reason for recommending blended learning, 28 percent (16 out of 57) mentioned support or help as a determi
er for effectiveness of the experience, and 39 percent (22 out of 57) identified collaboration during face-to-face meetings as a factor in positive attitudes and perceptions.

During interviews, when discussing whether blended learning was recommended for professional development, 88 percent (14 out of 16) participants referenced prior experiences with online or blended courses. One participant noted, “The online portion is convenient. You can work at your own pace. That’s important when you are taking a class while teaching”
Table 4

**Inductively Identified Key Ideas on Teachers’ Attitudes Towards Blended Learning**

<table>
<thead>
<tr>
<th>Sample participant response</th>
<th>Initial Descriptive Code</th>
<th>Key Idea(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“It’s convenient for completing assignments at home with busy lives, but still provides some face to face hours for questions and concerns in the learning” (Teacher 1).*</td>
<td>Convenient; Face-to-face hours for questions/concerns</td>
<td>• Convenience • Support</td>
</tr>
<tr>
<td>“This approach provided an opportunity to work collaboratively while also only keeping us for class the least amount of time possible. It allowed us to complete some of the coursework at our leisure” (Teacher 2).*</td>
<td>Opportunity to work collaboratively; Less time in class; Complete course at leisure</td>
<td>• Collaboration • Efficiency • Independence</td>
</tr>
<tr>
<td>“…provides full-time workers the flexibility of time” (Teacher 7).</td>
<td>Flexibility of time for educators with other priorities</td>
<td>• Flexibility • Needs of adults</td>
</tr>
<tr>
<td>“It is nice to be able to do the work at your own pace and in your own time…but having the once a month meeting was a wonderful way to get a deeper understanding and good discussions about the topics” (Teacher 4).*</td>
<td>Work at own pace online; face-to-face deeper understanding and good discussions</td>
<td>• Pacing • Deeper Understanding • Discussions</td>
</tr>
<tr>
<td>“…meets the needs of the diverse population of students” (Teacher 11).*</td>
<td>Meets needs of diverse learners</td>
<td>• Diversity • Learning Styles</td>
</tr>
<tr>
<td>“easier for introverts like me to have a voice in discussions” (Teacher 56).</td>
<td>Online discussions</td>
<td>• Voice</td>
</tr>
<tr>
<td>“I would recommend taking a hybrid course. It allows the student to make the best use of their time as well as being held accountable by the face-to-face sessions” (Teacher 12).*</td>
<td>Hybrid allows student to make best use of time; Accountable by face-to-face sessions</td>
<td>• Time • Accountability</td>
</tr>
</tbody>
</table>

* Some responses overlap discussing attitudes and effectiveness of blended learning. Key ideas overlapping two research questions include support, collaboration, deeper understanding, discussions, learning styles, and accountability.

(Teacher 27). The participant added, “At first, I really like the online part anyway because you work at your own pace when you know when you teach you know things get crazy, they get busy and sometimes you need to work on a Saturday” (Teacher 27). One participant who admitted to slacking on assignments stated, “I don’t feel you’re held as accountable with online only courses” (Teacher 6). The blended learning format provided accountability. One respondent
reported mixed feelings because “online stuff feels like I’m just checking the box like X, Y, and Z is required to get the A or the credit.” When asked if blended professional development should be used with teachers, the reply was yes, “especially blended and not just online where it’s kind of hand-in-hand with the classroom” (Teacher 38).

Other respondents addressed personal motivating factors for choosing blended learning in lieu of making recommendations for others. One participant said, “Taking a blended course allows me to extend my learning while also balancing a busy work and family schedule” (Teacher 33). Those students who had previous successful and positive blended learning experiences, were more likely to have positive attitudes towards blended PD. As one respondent remarked, “I prefer online courses…. A blended course allows for multiple learning styles and preferences to be accommodated” (Teacher 3). One respondent commented, “I do favor the blended learning environment…. It’s what I’m familiar with through my own graduate work and research” (Teacher 26). These prior experiences were believed to have contributed to teachers’ attitudes towards blended PD.

**Teachers’ perceived effectiveness of blended learning for professional development.** Research Question Two asked how teachers perceived the effectiveness of blended PD. During data analysis, Research Questions One and Two had similar findings. Teachers’ attitudes were dependent on perceived effectiveness of the course in meeting instructional objectives and quality of the blended learning experience. Question 12 of the research questionnaire asked teachers to rate the effectiveness of the blended PD from poor to excellent. Nearly 95 percent (54 out of 57) rated the experience as excellent or good, 5 percent (3 out of 57) rated the experience fair, and 0 percent felt the experience was poor (see Figure 5).

Question 13 of the questionnaire asked participants to elaborate and explain reasoning for rate of effectiveness. Teachers who perceived the professional development to be effective,
developed positive attitudes about the experience. Interviews confirmed teachers’ attitudes and perceived effectiveness of the blended learning experience were interrelated. Key ideas led to emergent themes of 1) quality of blended learning environment within a Community of Practice, 2) instructor’s effectiveness, and 3) applicability to teaching. Problems encountered during blended learning were also identified and discussed; but were not included as emergent themes since a specific interview question led interviewees to consider challenges and disadvantages during the blended learning experience. The following key ideas included impact on learners (attitudes), as well as impact on learning (effectiveness).

**Quality of blended learning environment within a Community of Practice.** Blended learning was defined from the point of view of a classroom teacher as “giving the learner an opportunity to do the learning in multiple ways not just going to a building and using a book, but by using resources with technology, being able to communicate and collaborate with colleagues for extended learning” (Teacher 26). Another participant added, “I think that it’s really beneficial to us as educators. It’s so much more powerful than just reading a textbook or some article and then trying it with your students not having that experience of really what it feels like” (Teacher 24). One veteran teacher noted, “I love the fact that I could apply it directly, and I
could make my teaching better” (Teacher 27). Teacher 38 added, I felt like I grew as an educator. It gave me new skills and new tools to utilize.”

Quality of the CoP and face-to-face portion of the class was a determiner of effectiveness for a blended learning course (see Table 5). Responses included perceptions about the quality of the content, as well as the learning environment. One teacher commented, “The time was used well when we were together. I do not like having to respond to other’s comments in the online part” (Teacher 30). Although there was help available for students during the online portion from trained facilitators, some participants relied on the in-person contact with the instructor to clarify understandings and get help with assignments. Participants also shared how the face-to-face portion exuded a safe and supportive environment in which to learn. As one teacher stated, “I get to learn on my own, but I also have a teacher available if needed” (Teacher 44).

Table 5

<table>
<thead>
<tr>
<th>Sample Participant Response</th>
<th>Key Ideas</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>“The cohort I worked with was amazing! We were able to collaborate and bounce ideas back and forth in regards to the learning” (Teacher 7)</td>
<td>• Collaborative</td>
<td>Quality of Blended Learning within a Community of Practice</td>
</tr>
<tr>
<td>“The blended class affords students to ask questions and collaborate in real time as well as ask questions that may not be as easily asked or addressed nonverbally” (Teacher 22).</td>
<td>• Supportive</td>
<td>• Safe</td>
</tr>
<tr>
<td>“It was nice to have other people in the building taking the course at the same time so that you could bounce ideas off each other and see how different content areas apply the same concepts” (Teacher 12).</td>
<td>• Convenient</td>
<td>• Collegial</td>
</tr>
<tr>
<td>“…being able to go back to the information later and reference that if you need it is really valuable” (Teacher 49).</td>
<td>• Autonomous</td>
<td>• Productive</td>
</tr>
<tr>
<td></td>
<td>• Helpful</td>
<td></td>
</tr>
</tbody>
</table>
Other respondents discussed how the CoP provided collegiality among like-minded professionals. Teachers were able to use face-to-face sessions to share ideas and strategies. Key ideas pulled from interviews led to a deeper understanding of the impact of blended learning on effectiveness of professional development within a CoP. These ideas also provided useful information on the design of blended PD for teachers.

**Collaboration.** Forty-two percent (24 out of 57) participants identified collaboration within the community during face-to-face meetings as a key component of effectiveness of the course and in some cases preferred the face-to-face meetings over the online component. Collaboration was mentioned as a significant influence on attitudes towards blended learning and effectiveness of the course. “I’d prefer to do the reading or watch the video all on my own time independently…then have the time the blended part in the face-to-face part to be collaborative” (Teacher 49). Teacher 49 summarized the purpose of face-to-face meetings, “…coming together face-to-face of being able to come together in person with your colleagues is valuable. You get to see other people’s perspectives. I think it does build camaraderie and help you build connections.” Another participant with experience in presenting professional development, identified blended learning as useful when you’re able to meet face-to-face “you have to have that opportunity to get a particular person, ask the question, and get the elaboration” (Teacher 22).

Other teachers commented how the CoP extended beyond the school walls “…it was a really good way to collaborate with your colleagues because you were able to expand it not only from your building but the ones within the county and different levels” (Teacher 13). Teacher 12 added, “I think having a broader group of people helps you become a better educator because you can’t experience everything, and you need to see how other people experience things…” A veteran teacher added, “I would like to see it (blended learning) used. I feel it gives you a wider
range…gets you outside of your school. It gets you outside into other communities” (Teacher 8).

Teacher 2 commented on the value of the CoP “…being able to ask questions and receive feedback from peers that are doing the same thing you are or have the same understanding of the concepts and give you a fresh take on things…”

Teachers who were interviewed commented on the CoP and plans for spreading knowledge beyond the community by sharing professional development in schools. The ability for CoPs to extend beyond the professional development experience was noted by a teacher who explained, “… it gave you the option to go back and ask questions or whatnot as the year progressed, so it kind of kept that community feel” (Teacher 2). Another participant who attended the professional development with a team of teachers stated, “It allowed us to use specific experiences related to course content that made learning more personal and reflective” (Teacher 16).

One teacher with administrative and leadership experience found blended learning to be important and stated, “I need the interaction with the people in the class and the instructor. I just think that the added benefit to the blended piece is getting together with the community; that is so important” (Teacher 24). Teacher 6 confirmed, “I think you get more out of the relationships that you build when you meet face-to-face rather than just strictly online.” Teacher 8 added, “…teachers being able to collaborate with one another to be able to give ideas is important in both ways. I think face-to-face is important as much as feeling that they’d have somebody to go to on the internet.”

The social aspect of blended learning was a noted benefit of face-to-face meetings. One respondent commented, “blended learning gives people opportunity, comfortability, a chance to build their own social context in the work” (Teacher 26). Teacher 27 reflected, “blended learning part was nice because I love professional dialogue…it was nice to hear from people like
how well my understanding of what was going on applied to their classrooms too.” The same respondent noted in favor of blended learning within a community of practice, “you got younger teachers and veteran teachers, there’s got to be a chance for them to have that professional dialogue and build community” (Teacher 27).

Support. A prevalent theme among the responses regarding the CoP was the support offered within the community. Twenty-five percent (14 out of 57) respondents commented on the helpfulness or support during face-to-face meetings. Support included having discussions, time to ask questions, getting help from the instructor, listening to others’ ideas, and on-going communication. Teacher 5 shared how the online forum was used, “We also had to comment on one another as a unit in a discussion forum, an online discussion forum…it was neat to see the similarities in the experiences.” Community members valued the contributions of others and learning from each other’s experiences. As one teacher explained, “the blended aspect you know really is kind of more of a community building. It fosters looking at other people’s ideas…and then when you’re online and you’re interacting with them they’re not just an avatar with a name” (Teacher 5). One teacher who is familiar with delivering professional development, explained how the community of learners helped confirm understanding and described a plan for sharing information “…having that community of practice piece of it allowed me to have natural support to really not only solidify it into my own mind but be able to now put it into words for other people” (Teacher 4).

Blended learning was valued by several participants as a means of fostering support. Teacher 16 commented they would not have participated if it weren’t blended because the course “was a great deal of work” and they felt the time and collaboration with peers was important. Support from colleagues or instructor was important. Teacher 16 shared, “when I needed collaboration or clarification on an assignment or subject matter, I knew that I could get that
when we met.” Another teacher added, “it was nice to have that interaction and be able to learn from others…” (Teacher 2). A veteran teacher with over 40 years’ experience who wanted to be able to keep up with the younger teachers but needed help along the way commented, “I do like a blended (course). I feel that support is needed for me” (Teacher 8).

Convenience. The timeframe and structure of the blended learning course contributed to effectiveness of the professional development. Thirty-two percent (18 out of 57) teachers appreciated the flexibility and convenience of the course. One teacher stated, “I like the fact it was just a short course and I can continue the classes online had it been something where I had to meet face-to-face every week, it would’ve been too much of a commitment” (Teacher 13). Teacher 13 added, “this PD was one of the most interesting and interactive.” Another participant agreed and said, “I definitely like the fact that you have some online and some in-person. I think it’s a time-saver…” (Teacher 21). Teacher 24 concurred, “I think it’s again, a great opportunity especially for educators because we are so busy.” Another participant stated, “having a portion of the class online saves a lot of time” (Teacher 19). Teacher 2 commented, “(Blended PD) gives teachers a chance to spend less time out of their classroom…. can do at least half if not more in a virtual forum at your own pace in time.”

Convenience of location was a noted benefit for participants. One teacher commented, “It was also nice to be able to meet with other teachers in my building to discuss what we were going through as they didn’t feel like you were going out all alone” (Teacher 12). The same teacher confessed, “having it at my school and being able to work online was more convenient…. If I had to travel a further distance, I probably would have gone, but dropped” (Teacher 12). A young teacher addressed uniqueness of the blended format and stated, “the flexibility, it allows where maybe we don’t have to physically all be in the room at the same time
especially during... school year really opens door in ways that past generations haven’t had the opportunity to have” (Teacher 38).

*Autonomy.* Time management and self-directed learning was important to several teachers who were interviewed. A participant stated blended PD “increases people’s comfort level. The pressure is off them to absorb all the information at the same exact time…. They can do it at their own pace” (Teacher 21). Being able to work at one’s own pace was valued by adult learners. Teacher 4, a self-proclaimed busy working mother explained the benefit of the online component of blended learning, “…being able to complete that portion of it when you are focused and more ready to take in the information, I think is very beneficial.” The same participant commented how blended learning fit in a lifestyle, as well as learning style. “I’m a busy person with being a mother, a teacher…. So being able to do lots of it on my own time is great, but the fact that, me as a learner, I need the chance to talk to people” (Teacher 4). One interviewee shared mixed feeling towards blended methods. Teacher 8 admitted liking blended learning and found the method useful, but admitted, “it would depend on the topic because if it’s something that I don’t think I’m going to use or practice, but it’s something I just have to take…I would not want to go to blended learning…” The same person noted, “… getting material online, thinking about it or reading about it, but then being able to discuss it openly with people, I find it easier” (Teacher 8).

*Instructor’s effectiveness.* Instructor characteristics were mentioned by participants as a factor in determining perceived effectiveness of blended learning courses. Nineteen percent (11 out of 57) participants mentioned the instructor when expressing satisfaction with the course. Instructor effectiveness was attributed to instructor’s knowledge of content, as well as personality traits which impacted the professional learning environment (see Table 6). Participants’ comments were generally positive when speaking about instructors. Participants,
who are teachers themselves, understood the demands on the instructor to provide an engaging and effective class. Management of the face-to-face portion of blended learning was the most-commonly discussed aspect of instructor effectiveness. Teachers desired active and engaging lessons which could be modeled and taken back to use in classrooms immediately. The perceived effectiveness of the instructor within the blended learning environment may also be impacted by technological skill and contributions to the online portion of the class. Instructors were expected to be available to answer questions and take part in the discussions. Where the instructor was unable to help with technology problems, outside technological assistance was important.

Table 6

**Instructor’s Effectiveness and Perceived Effectiveness of Blended Learning**

<table>
<thead>
<tr>
<th>Sample Participant Response</th>
<th>Key Ideas</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Our instructors were knowledgeable, and I learned a lot” (Teacher 2).</td>
<td>Knowledgeable</td>
<td>Instructor’s Effectiveness</td>
</tr>
<tr>
<td>“Teachers were efficient and managed time well when teaching. They created hands on engaging activities that allowed us to get involved and let our voices be heard” (Teacher 1).</td>
<td>Efficient</td>
<td>Engaging</td>
</tr>
<tr>
<td>“Our FAME leader was very effective and did a good job keeping us on task and up to date on assignments” (Teacher 4).</td>
<td>Effective</td>
<td></td>
</tr>
<tr>
<td>“Instructors were positive and energetic. That rubs off on you as a learner” (Teacher 6).</td>
<td>Positive</td>
<td>Energetic</td>
</tr>
<tr>
<td>“The teacher was very informative, personable, patient, and made the class very interesting” (Teacher 13).</td>
<td>Informative</td>
<td>Patient</td>
</tr>
<tr>
<td>“She was willing to help with questions anytime face-to-face or through email” (Teacher 12).</td>
<td>Supportive</td>
<td>Available</td>
</tr>
</tbody>
</table>
Information regarding specific instructors was eliminated from the data analysis. One participant elaborated how the facilitator plays a huge role in the face-to-face meetings, and therefore the overall effectiveness of the professional development. “You just pick up on a lot of different things when you’re actually there with an instructor…and I just feel like I have a lot to learn from her…. She was on top of it” (Teacher 6). A facilitator should be available to answer questions, or to direct students where to go for help or better understanding. The instructor is seen as a leader, or even a mentor. One teacher commented how valued and respected her instructor was as a leader and how the instructor was appreciated for sharing hands-on activities. “It was something that was hands-on you could take into your classroom right away and begin working with it” (Teacher 13).

Knowledge of content. The face-to-face component of blended learning courses allowed for modeling of instructional strategies. Instructor’s knowledge of content which was shared during the workshop was valued by novice participants. One participant stated how they enjoyed the blended learning professional experience for the ability to try out new strategies in a real-life setting. “I really liked the fact that we were given the opportunity to go into the classroom, learn all the material, and then expected to go try out everything that we learned in our own classroom” (Teacher 23). The participant also appreciated getting feedback “…able to go to class, learn all the material, and then be able to go put it in a real-life situation and then get feedback from everybody on what I could do differently” (Teacher 23). The same teacher commented blended learning was very helpful and “it wasn’t like OK here go write a paper on what you learned it was, you know, put into action” (Teacher 23).

Engagement. The format of blended PD lends instructors to include a variety of strategies in face-to-face sessions which address different learning styles and engage learners. One participant remarked, “…it was a very good experience because I believe it catered to just a
lot of learning styles and a lot of times, we don’t talk about learning styles in regard to adults” (Teacher 5). Teacher 24 noted how after completing research and reading articles online “then you’re actually trying it out for yourself and you’re getting a feel for what it feels like as if you were a student in a classroom; you’re getting that sort of take-away experience.” Teacher 38 commented, “There was a lot of facilitation of learning. Not too much lecturing.”

Efficiency. One teacher valued the guidance of an experienced facilitator who could demonstrate and testify how effective the instructional methods were and commented, “I was in a building where it was not being implemented with regularity by anyone, so it was nice to be able to see what it looked like in the classroom” (Teacher 21). An effective leader engages the students and facilitates the learning, while a poor leader can undermine the success of the face-to-face portion of a blended class. Teacher 4, a teacher with over 15 years’ experience taking and delivering PD, admitted “this was actually my third attempt completing FAME so I would tell you that the person in charge of the heart of the learning that is done face-to-face makes a huge difference in blended learning.” The participant further praised the instructor saying, “she was available to us whenever we needed to discuss more things” (Teacher 4).

Applicability to teaching. Applicability to classroom teaching led teachers to respond favorably to blended PD. Fourteen percent (8 out of 57) teachers commented on how the course was useful or applicable to the job. Perceived effectiveness was impacted by information gained in the course, usefulness, and how the content was modeled by the instructor. Both courses examined in the study were established within a CoP and were county initiatives to transform classroom teaching. Modeling of strategies, classroom activities, and reflection were instructional strategies used by instructors. Teachers who participated in either Formative Assessment for Maryland Educators (FAME) or Restorative Practices (RP) discussed how course content and strategies could be applied in schools or classrooms and used with students.
Impact on student achievement was realized and discussed by several participants. When asked if the experience was effective, Teacher 2 quipped, “Yeah, it helped change my way of teaching so I would think so.”

Interviews provided a deeper understanding of content and its impact on classroom teaching. Some participants mentioned how information from the course would extend beyond the CoP to teams, departments, and schools. Several of the teachers were taking the professional development with colleagues in order to share with school teams. Teacher 4 shared, “I wanted to be one of the first in our school to have the knowledge base of FAME, so I wasn’t going in blind and I’d be able to help other teachers acclimate themselves…” Teachers shared excitement for being able to put information from the courses into immediate use. Even at the end of the school year, teachers found value and usefulness in the topic. Both courses included hands-on activities for the teachers to take back to classrooms and use with students. Data which solely discussed or gave opinions on the content of either course from six respondents, rather than addressing the question about the blended teaching method, were cleaned and not considered in the analysis (see Table 7).

**Challenges or disadvantages of blended learning.** Teachers were asked to identify any challenges or disadvantages when participating in blended PD. The face-to-face portion led to concerns with scheduling or concerns for the learning environment and having to work with others, while the online portion garnered problems with technology or time management. Teachers reported challenges faced by themselves and colleagues within the learning community and provided ideas where more support was needed.
Table 7

Applicability to Teaching and Perceived Effectiveness of Blended Learning

<table>
<thead>
<tr>
<th>Sample Participant Response</th>
<th>Key Ideas</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>“…in class meetings were informative yet succinct” (Teacher 25).</td>
<td>• Informative</td>
<td>Applicability to Teaching</td>
</tr>
<tr>
<td>“…gained valuable knowledge to be able to use restorative practices in the future” (Teacher 24).</td>
<td>• Useful</td>
<td></td>
</tr>
<tr>
<td>“It was applicable to the job I do every day. It was a good course for me to reflect on my teaching practices” (Teacher 20).</td>
<td>• Applicable</td>
<td></td>
</tr>
<tr>
<td>• Reflective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“It allowed for the practices to be modeled” (Teacher 15).</td>
<td>• Modeled</td>
<td></td>
</tr>
<tr>
<td>“I was able to gain practical approaches that will work in my school and benefit both students and staff” (Teacher 11).</td>
<td>• Practical</td>
<td></td>
</tr>
<tr>
<td>• Beneficial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“I think…it’s got to be something that applies to that teacher” (Teacher 27).</td>
<td>• Relevant</td>
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**Scheduling.** Time to participate in the face-to-face class could be viewed as a challenge of blended learning. Teacher 49 noted, “sometimes not everyone’s prepared for that face-to-face meeting, and that can be frustrating if the expectation is you go into that face-to-face meeting with something accomplished…” Another problem which was identified and specific to one of the 2-day courses on restorative practices, was the lack of time to learn new content. Teacher 23 commented the course was too condensed and would’ve liked more time to work with the material. “… it was kind of rushed. I wish we had a couple more days because it was so much material.” The same teacher lamented, “The course was on a Thursday, Friday…in May and I knew I wasn’t going to have a lot of time you know left with the kids…. I was like how am I going to incorporate this in my classroom, what can I do” (Teacher 23)?

There were some communities which expanded beyond the participant’s school system. In this case traffic and getting to the face-to-face class meeting was viewed as a disadvantage.
Teacher 22 noted, “The problem was for those who were out of county, it was just to travel to and from...because you know how our traffic can (be).” Sometimes the courses don’t get a lot of participants and communities are small. This can limit the interaction among participants and success of the community unless everyone participates. As one teacher out of a group of three recollected, “…so when we met there’s really only like three of us that met but what I liked about it was we talked about hey, this stood out to me…and here’s how it works…” (Teacher 27).

**Technology.** Technology can be a barrier to learning if problems are not mitigated by a facilitator or other technical support staff. “The only trouble I had was videos freezing up on me, permanently. I would send an email (to) whatever link was there and the next time I would go on and try it, it would work” (Teacher 16). Learning online could be a challenge for those without technical skills. One participant explained how they helped a colleague who struggled, “Some of my teammates that are older every time we had to do questions and stuff, I had to kind of help her with it…” (Teacher 13). Teacher 5, a teacher who worked in a blended learning environment with students recognized a digital divide among faculty, “There is a distinct divide between the terms of digital natives and the people who are not digital natives…. Sometimes they struggle with it and you see people putting comments off to the last little bit.” The participant also noted blended learning is great because “it makes people process information and interact with it a little bit more. And it also for that matter is something we need to be expecting children to do…if we’re getting kids college and career ready” (Teacher 5).

Even in our modern schools, access to functional technology could be a challenge for some teachers. Teachers who relied on classroom computers to work sometimes encountered problems. Teacher 8, a veteran teacher, who works in a remote area of the county, recounted some struggles to watch some of the videos and respond online “…my computer in my room is
demented…. It has issues.” The teacher further divulged how online access was a problem at home, “I actually was living in an apartment that didn’t have internet reception…so I used the library” (Teacher 8). Regardless of these obstacles to learning, the veteran teacher was highly motivated to attend more professional development using blended methods and to find ways to complete the coursework. The teacher not only demonstrated perseverance in learning, but also motivation to use what was learned in the classroom.

**Teachers’ motivation for participating in blended professional development.**

Research Question Three addressed teachers’ motivations for taking blended PD. Participants were asked to rate motivation to participate in blended PD in Question 14 of the research questionnaire. Responses ranged from very unmotivated to very motivated with 93 percent (53 out of 57) responding favorably, 7 percent (4 out of 57) neutral, and 2 percent (1 out of 57) unfavorably (see Figure 6). Question 15 then asked each participant “What motivated you to participate in this course? Are you interested in taking more courses using blended learning? Why or why not?” The open-ended question allowed teachers to elaborate on the rating from Question 14 and encouraged respondents to share reasons for taking blended PD.

![Figure 6. Teachers’ motivation to participate in blended learning professional development.](image)

Four themes emerged from the questionnaire. Professional growth or a desire to learn
more about the topic motivated 26 percent (15 out of 57) teachers to enroll in the course; while 25 percent (14 out of 57) stated the course was required or needed to fulfill professional certification credits. Another 26 percent (15 out of 57) commented on the convenience and flexibility of attending a blended learning course, and 7 percent (4 out of 57) also mentioned the ability to collaborate with others as a motivating factor. Ten of the 57 participants left the response blank or did not discuss motivation.

Two interview questions addressed teachers’ motivations and expanded on the ideas expressed in the questionnaire. The interviews further explored and explained the lived experiences of teachers who had personal or professional reasons for taking one of two courses offered within a CoP. Each course required time to meet outside of school, as well as over half of the required hours to be completed independently using online methods. First, participants were asked what motivated them to take the course. Then, whether they would have taken the course if not conducted using blended learning methods. Four themes emerged from the data regarding motivation 1) scheduling, 2) blended format, 3) community, and 4) professional growth (see Table 8).

The responses regarding scheduling included comments about convenience and how the location of the course was a factor in signing up for the professional development. Face to face meetings took place in schools, while the online portion allowed teachers the ability to work from home or other remote areas. Autonomy and flexibility were noted benefits of learning partially online. Teacher 2, a single mom who professed only being able to get work done “after my little one went to bed” touted when asked what the needs of adult learners are, “being flexible, having that flexibility” was a motivating factor for busy professionals with families or other obligations. As with data collected on the other two research questions, some of participants’ responses crossed themes.
### Table 8

*Teachers’ motivations for participating in blended PD*

<table>
<thead>
<tr>
<th>Sample Participant Response</th>
<th>Key Ideas</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I was with my colleagues within my own school… the conversation was very relevant to what we are doing…” (Teacher 49).</td>
<td>• Flexibility</td>
<td>Scheduling</td>
</tr>
<tr>
<td></td>
<td>• Location</td>
<td></td>
</tr>
<tr>
<td>“I am interested in taking more courses using blended learning so I can learn the material and apply it when appropriate to my daily teaching, while still being able to collaborate with other educators on our own time” (Teacher 7).</td>
<td>• Blended Learning</td>
<td>Blended Format</td>
</tr>
<tr>
<td></td>
<td>• Collaboration</td>
<td></td>
</tr>
<tr>
<td>“It was nice to collaborate with my colleagues in person and work together to make decisions for best practices at our school.” (Teacher 20).</td>
<td>• Collaboration</td>
<td>Community</td>
</tr>
<tr>
<td></td>
<td>• Decision-making</td>
<td></td>
</tr>
<tr>
<td>“I needed 3 credits for recertification. Also, formative assessment is something I’ve wanted to improve one [sic]. It was a logical next step for my professional development” (Teacher 27).</td>
<td>• Recertification</td>
<td>Professional Growth</td>
</tr>
<tr>
<td></td>
<td>• Professional Interest</td>
<td></td>
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</table>

Teachers’ preferences regarding the content of the courses was not included in the analysis of attitudes or perceptions. Topics and a desire to learn more about how to apply new knowledge in the classroom or school setting was integral to understanding teachers’ motivations for seeking out and participating in professional development. Several teachers commented how blended learning was integral for understanding content which needs to be modeled and practiced before applying in a classroom setting. The real-life setting and safe place for learning afforded by a face-to-face class, motivated learners to use the information and seek out similar professional development activities.

**Scheduling.** As one adult learner noted, “The flexibility of scheduling is a key motivator for me as a single mom” (Teacher 7). Other responses addressed blended teaching methods as motivating factors. “I like working at my own pace, so the online work is nice, but I am more motivated if I get PD in person, so a mix is perfect for a learner like me” (Teacher 6).
Community was also recognized as a motivator for teachers who wanted to learn from colleagues. Several respondents mentioned the ability to collaborate with others and have face-to-face interactions as important. One very motivated participant elaborated, “the face-to-face sessions were great to motivate me and to hear other experiences” (Teacher 8).

**Blended format.** When asked whether teachers were motivated to take more professional development courses using blended learning, teachers reflected on either attitudes or effectiveness of the course discussed in previous themes. Teachers expressed a desire for more blended PD and willingness to attend more courses. Teacher 4, a veteran to professional development advised, “This is the way to go to get the professional development you need without putting too much stress in your life.” The teacher added, “Being forced to sit down in a meeting all the time to try to gather information doesn’t really help the masses like being awake ready to learn…and do your online portion” (Teacher 4). Another teacher remarked, the risk of failure due to having to be absent is alleviated when some of the time can be made up online. “I think it’s very beneficial for saving time or for allowing people to participate because I know I’ve had to not take courses before because I have to miss one or two classes” (Teacher 38).

The blended learning format provided opportunities not found in regular professional development. Teacher 13 complained how regular workshops can be boring “when we go to our trainings and refreshers in the beginning of the year, they’re always telling us not to talk to our kids; don’t just give them paper….then when we go to PD that’s exactly what you’re doing.” Teacher 8 noted the value for young teachers just starting out “…if they had this experience where they made contact with lots of others in the community where they feel that they could reach out to discuss not only discipline but instructional practices…it would be a good support for them.” Teacher 4 identified blended PD as an excellent way to get new information said, “Being able to have access to courses like this would make it so much better for us to keep up
with the changing trends.” A final comment made by a school leader summed up teacher motivation with these words, “I just hope that it’s something that’s trending and it’s going to be more often because I think that the benefits (of blended learning professional development) far outweigh any of the challenges” (Teacher 21).

Community. For some, the blended platform provided a social support system. As Teacher 21 remarked, “…human interaction is an invaluable way of learning…in person you just get different perspectives and you hear things they may not have thought of sitting by yourself in front of a computer.” Teacher 5 commented on social interactions adding, “I enjoyed the blended learning…because it appeals to using online technology and interactions, but also the in-person ones.” A participant countered if you just wanted to get the professional development over with, a workshop would be better, but blended learning “allows you the opportunity to try it out and then come back to talk about it or write about it, or both” (Teacher 22). Blended learning places a larger demand on the learner. As Teacher 22 warned, “you’re held accountable to describe where you’re going to use and how you’re going to use it.”

Professional growth. Some of the teachers addressed the need to obtain credits or meet school-wide goals, while others declared they chose to take the course based upon interests and to improve teaching practice. One respondent shared an idea for carrying over the blended learning experience into the classroom. “I was interested in this course for its blended learning environment and to use 21st century skills to advance learning and collaboration. A student-centered learning environment lends itself to more inquiry and self-motivated learning” (Teacher 26). Although there were a majority of highly motivated participants, not all respondents were positive or motivated to attend blended PD. One respondent stated, “I am not motivated to attend any professional development” (Teacher 19) and another countered, “this was the only option offered for this particular class” (Teacher 45). Semi-structured interviews helped to
further understand teachers’ motivations for attending professional development, as well as attitudes towards blended learning and perceptions of the effectiveness of the professional development experience.

*Personal or professional interest in topic.* Teachers’ motivations to learn may be based on a desire to transform teaching practice. Teacher 22 commented how professional development could be shared, “I’m responsible for their [mentors’] training. I’m able to give them a little bit of background and understanding of what they’re seeing their schools.” One respondent who wanted to help spread knowledge to other teachers, had several reasons for attending the professional development and rationalized, “well it was something that I was really interested in, but also was a large initiative for my school…. I wanted to be trained so that I could assist teachers in my building” (Teacher 24). Teacher 22 shared, “it was an area that I knew I was familiar with, but I wanted to make sure I understood it the (school system) way.”

Other teachers shared how they were led to enrolling in the course to meet system-wide goals. “I decided to take FAME because our county is thinking about making the county a FAME county. A lot of schools are transitioning to that format” (Teacher 4). In some cases, outside influence came from administrators or colleagues. Teacher 8 cited her principal was promoting the professional development. “…our principal encourages us. She’s kind of FAME is big….I don’t know what will be coming, but I know that she’s very encouraging to her staff to get people to do this.” Teacher 6 shared, “(school name) was starting to implement it more and so I just wanted all the information I could on that.” Another teacher remarked, “It was something I was interested in. We had very brief explanations of it through PD at school, so even the two-day option, I took advantage of it” (Teacher 2).

Several teachers noted how colleagues influenced the decision to enroll in a course and garnered interest in the topic. As Teacher 23 shared, “A lot of my co-workers have been talking
about restorative practices and doing restorative circles in your classroom and how it’s really helped them…” Teacher 38 added, “I had a little bit of an exposure to it from a previous course.” Teacher 49, a veteran with an advanced degree in leadership, shared, “I’m interested in anything that can make me a better teacher in my class… I didn’t have any prior training in it, so I really wanted to learn about it.” Another teacher commented, “I have been using it in my classroom throughout the year already. So, I just wanted to make sure I was using it effectively” (Teacher 13).

*Earn professional development credit.* Though most participants cited a genuine interest in the topic and desire to know the content, motivating factors extended to a desire to conveniently earn continuing professional development (CPD) credits for recertification. One teacher admitted, “I needed a CPD credit but also, as I said, my current principal and administration are large proponents of restorative practices” (Teacher 5). Another stated earning credit and convenience as motivating factors. “I was going to be given CPD credit which would allow me to continue my recertification process…. So, when I went there it was in a convenient location when I needed to do the face-to-face” (Teacher 22). Even though a teacher had just renewed a teaching certificate, there was value added in taking the course including convenience. The participant shared, “there was also a stipend included and it was convenient, the location, I didn’t have to drive anywhere else” (Teacher 16). Not all teachers needed CPD credits, but the school system provided credit and in the case of one of the courses, a stipend for attending. Both of these factors impacted teachers’ motivation for participating in blended professional development.

**Reliability and Validity**

Reliability and validity in qualitative studies are impacted by research design, data collection and data analysis. Glesne (2016) stated researchers need to explain the steps taken to
check for accuracy and credibility. Credibility, as it pertained to validity of findings, was improved through expert panel, member-checking, triangulation of data, and peer review. An expert panel guided development of questionnaire and interview questions used in the study. Open-ended questions established content to be explored, but did not presume an answer (Seidman, 2013). Member-checking of transcripts helped to accurately record the thoughts and feelings of participants prior to analysis (Creswell and Creswell, 2018). Member-checking shared initial codes and themes with participants. Birt et al. (2016) noted member checking, or respondent validation, is a means for enhancing credibility of results. Triangulation provided multiple perspectives from open-ended questions in both the questionnaire and interviews. The peer review process or debriefing enhanced credibility and included members from American College of Education faculty and student body.

Dependability, or reliability, of the research process was ensured by following van Manen’s Six-Step Approach to Hermeneutic Phenomenology (van Manen, 2016). Hermeneutic phenomenological research allows interpretations where personal experiences, judgements, and pre-conceived ideas are acknowledged (Creswell & Creswell, 2018). Data collection was transparent and consistent in design and process. Prior knowledge and experience with blended learning as a student and specialized training as an instructor and administrator of the online learning platform were acknowledged, but did not influence analysis of data. Also, any professional or personal relationships to participants were disclosed along with data analysis and results. Dependability was enhanced by use of a research log to outline data collection, procedures, interpretations, and analysis on a daily basis.

Use of open-ended questions in the questionnaire and semi-structured questions during interviews, along with use of a transcription service enhanced confirmability of findings. Seidman (2013) noted, interpretation is an ongoing analytic process which could influence the
path of questioning during interviews. Triangulation of data from questionnaire, interviews, and research log notes were noted as measures of confirmability (Cho & Lee, 2014; Yilmaz, 2013; Yin, 2014). Descriptive and in vivo coding were used to make sense of participants’ responses and develop an understanding of the experience (Glesne, 2016). Reflexivity and use of bridling process revealed researchers’ interpretations and past experiences with blended learning (Creswell & Creswell, 2018; Dahlberg & Dahlberg, 2003).

Transferability, also called qualitative generalizability by Creswell & Creswell (2018), is a means of generalizing findings beyond the study. While a qualitative study may not be replicated exactly, the research procedure may be applied to individuals, sites, or places outside of the study at another point in time. A study of blended PD of K-12 public school teachers may be generalized to other settings or other audiences. A research base in professional development, blended learning, and Community of Practice contributed to identifying the research gap and in determining potential participants, audiences, and stakeholders. Research procedures were carefully explained to facilitate replication in future studies.

Chapter Summary

Chapter 4 explained data collection and shared data analysis from a questionnaire and semi-structured interviews with research participants. Key ideas and themes which emerged from the data were outlined and organized by research question. Teachers’ attitudes and perceived effectiveness toward blended PD were found to generally be positive and related to three emergent themes which overlapped 1) quality of blended learning within a Community of Practice which afforded collaboration, support, convenience, and autonomy, 2) instructor’s effectiveness including key ideas of instructor’s knowledge, engagement, and efficiency, and 3) applicability to teaching including usefulness of course. Challenges or disadvantages of blended learning, including scheduling of face-to-face sessions, working with others, and problems
accessing technology, were shared. In response to Research Question Three, teachers’ motivations were influenced by flexibility of scheduling, blended format, community and collaboration and a need or desire for professional growth. Chapter 5 will provide further analysis of the blended learning experience for K-12 teachers. The analysis will lead to interpretations of the phenomenon related to the three research questions designed around a conceptual framework for a CoP and adult learning theory. Recommendations which may impact use of blended learning for the professional development of K-12 teachers will be discussed.
Chapter 5: Discussion and Conclusion

Blended learning has been used in educational settings for nearly two decades, but the method has mostly been studied in higher education settings (Seaman, et al., 2018). Understanding the benefits and challenges of blended learning for professional development in K-12 school systems may help to address the need for flexible, effective, and affordable professional development for teachers (Blitz, 2013; Darling-Hammond, 2015). Blended PD is important for school systems aspiring to provide meaningful, supportive, cost-effective, convenient, and flexible staff development of current instructional best practices, as well as for improving teachers’ technological skills (Opfer & Sprague, 2018; Paskevicius & Bortolin, 2016; Schaffhauser, 2015; Shand & Farrelly, 2018; Siko & Hess, 2014).

School districts, including the one studied, are tasked with providing effective blended PD to meet the needs of adult learners (Conaway & Zorn-Arnold, 2016). A phenomenological investigation was designed to examine the experiences of K-12 teachers enrolled in professional development courses using blended learning methods. The problem is teachers’ attitudes towards blended PD, perceptions of effectiveness of blended learning, and motivations for participating in blended PD are unknown. Nguyen (2015) argued, research studies of blended learning should not be limited to courses for K-12 students. Research may include studies of blended PD. This study is significant in providing school systems information regarding effective and engaging professional development practices to meet the needs of practicing teachers.

A literature review indicated a research gap for blended PD and a call for research in K-12 educational settings. Blitz (2013) noted how blended PD may be as effective as face-to-face, but more research is needed. Means et al. (2013) conducted an empirical review of the literature and found a dearth of research on blended learning in K-12 environments, while Nguyen (2015)
identified a need for more research in blended PD in K-12 settings. An investigation of blended PD for K-12 teachers proposes to provide information for school systems who are charged with providing flexible, efficient, and relevant professional development (Darling-Hammond, 2015; Fullan & Hargreaves, 2016).

Blended learning can potentially fill the need for flexibility of scheduling with online activities, while providing support of face-to-face meetings (Tay, 2016; Zorn-Arnold & Conaway, 2016). In this study, the term blended PD was used to describe an instructional practice using face-to-face meetings, where teachers could collaborate and participate in class activities, combined with online activities housed in Moodle or Blackboard LMS. Teachers were enrolled in a pre-established Community of Practice with courses designed to share instructional strategies and current trends in education. Forty-six of the fifty-eight teachers who responded to the survey held advanced degrees and were considered experts in the field (see Figure 7).

4. What is the highest degree you hold?

![More Details]

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Figure 7. Participants’ degrees and experience in education.

Research procedures followed a hermeneutic phenomenological sequence established by van Manen (2016). Research questions were developed to fulfill a gap in understanding the
attitudes, perceptions, and motivations of teachers participating in blended PD. An online questionnaire and semi-structured interviews contributed to the data. Through descriptive and in vivo coding, three themes emerged related to teachers’ attitudes and perceptions of blended PD 1) quality of blended learning environment within a CoP, 2) instructor’s effectiveness, and 3) applicability to teaching. Themes underlying teachers’ motivations were 1) flexibility, 2) blended format, 3) community, and 4) professional growth. Ninety-five percent (54 out of 57) teachers who participated in study found the blended PD experience excellent or good and were motivated to take more courses using blended learning methods.

Chapter 5 will provide research findings, interpretations, and conclusions drawn from a phenomenological study of teachers within a suburban school district in southern Maryland. Teachers who self-enrolled in a professional development course utilizing blended methods were included in the study. A questionnaire and semi-structured interviews were used to understand and interpret the lived experiences of teachers and to examine impact of blended learning on teachers’ attitudes of professional development, teachers’ perceptions of effectiveness of blended learning for professional development within a CoP, and an understanding of teachers’ motivations for participating in blended professional development. Adult learning theory (Knowles, 1984) and CoP theory (Wenger & Trayner-Wenger, 2015) provided a theoretical background for the qualitative investigation. (see Figure 1, Chapter 2, p. 20).

Findings, Interpretations, Conclusions

Adult learners, including teachers, have diverse needs and reasons for participating in professional development (Conaway & Zorn-Arnold, 2016). Allen (2016) discussed how online learning should be authentic, relevant, and practical for adult learners. This study of adult educational professionals provides information on the attitudes, perceptions, and motivations of K-12 teachers who participated in blended PD within a CoP to improve instructional practice.
Teachers Attitudes Towards Blended PD

Blended learning was found to impact teachers’ attitudes of professional development where online activities provided flexibility and convenience, while face-to-face sessions provided a social forum and support from a community of learners. The study was conducted immediately following the blended learning experience. Findings suggested teachers’ attitudes toward the topic were attributed to convenience/flexibility, collaboration/community, and support (see Figure 8).

![Factors Impacting Teachers' Attitudes Towards Blended PD](image)

**Figure 8.** Factors impacting teachers’ attitudes towards blended PD

**Convenience/Flexibility.** Zhang et al. (2016) found teachers appreciate being able to learn at a convenient time and place. Teachers’ comments in the study confirm these findings. Convenience or flexibility of the online environment and reduced time face-to-face contributed to a mostly favorable response to blended PD. Courses were designed to promote use of Moodle LMS for discussions, as well as for housing course materials. Teachers discussed how busy schedules and family needs impact ability to participate in professional development, and how blended PD was both convenient and efficient. Teachers explained how flexibility of blended
PD helped to meet professional expectations, while taking care of personal needs. Teachers who self-enrolled in courses were generally interested in the topic and were willing to use personal time to complete assignments.

School systems aspiring to meet the needs of busy adults should consider alternatives to traditional workshops and mandatory trainings in solely face-to-face contexts. Teachers already spend most of the day in classrooms and schools working in isolation and welcome the flexibility to work from home or at a time which is convenient. Teachers cited the need to be with family, as well as the opportunity to rejuvenate before having to do coursework. Teachers who engage in a CoP are not limited to work within individual schools. By offering blended PD school systems can facilitate a productive learning community and promote more satisfied and productive teachers.

**Collaboration/Community.** Teachers appreciated the opportunity to work collaboratively and found support during face-to-face sessions useful. Whiteside (2015) identified the goal of blended learning is to overcome feelings of isolation while working online with face-to-face support. The research study of blended PD for K-12 teachers shared teachers’ perceptions of the blended course and indicated how teachers appreciated the face-to-face conversations and class activities. Feelings of isolation were mitigated by face-to-face sessions where participants were able to discuss ideas and get help from the course instructor. Most teachers also had more favorable attitudes towards blended PD than online learning or face-to-face learning alone. Several teachers cited previous experience with online or blended learning as determiners of attitudes towards the experience. Blended PD should allow for time for participants to share concerns and ideas, as well as discuss content. Connectivism theory by Siemens (2005) noted how the online learning process is just as important, if not more so, than the course content in promoting a collaborative and productive learning environment.
Support. The CoP brought together teachers to explore a common domain through shared practice while meeting technological and instructional needs of teachers. Support included help with online activities, as well as help understanding content during face-to-face sessions. Twenty-eight percent (16 out of 57) identified how the CoP provided support. Farnsworth et al. (2016) discussed relationships between members of a CoP and how to further the learning community. Teachers recognized the CoP as a supportive and safe place to try new activities before using new strategies with students. Several teachers commented how they appreciated the opportunity to bounce ideas off each other. The research of blended learning confirmed the work of Kintu et al. (2017) where the authors noted, when learning was perceived as effective, students were more likely to persist in meeting course outcomes. In the case of participants enrolled in blended PD, only one out of 57 admitted not completing all the assignments due to outside pressures of being a school administrator with a new position.

Teachers also used face-to-face time to clarify understanding and seek guidance from the course instructor. Some courses modeled how to complete assignments and provided support for online activities. Opfer and Sprague (2018) posited blended learning communities could help build capacity of staffs and fulfill a need for on-the-job training within school systems. In some cases, teachers were helping teachers with online activities and the technical support came from within the CoP. In other cases, the instructor was able to provide guidance and support of the online learning. Teachers who have positive experiences while learning online are more apt to want to pursue blended or online PD and use these techniques with students.

Based on these findings, school systems who offer blended PD should be cognizant of the quality of the content of the courses and the accessibility of assignments. Technological concerns can be mitigated through training and onboarding of course instructors on how to facilitate online course activities. Technological support should be in place to assist participants
with technological issues and technology in the schools where blended PD is offered should be fully functional. School system personnel should not assume teachers have access to technology, and where possible, should lend equipment such as laptops to teachers without personal devices.

**Teachers’ Perceived Effectiveness of Blended PD**

As noted in findings regarding teachers’ attitudes, themes were found to overlap when discussing factors impacting effectiveness. Effectiveness was attributed to ability of the course to address needs of the learner and successfully meet instructional objectives. Five themes emerged from data 1) collaboration/engagement within a Community of Practice, 2) convenience/autonomy of learning partially online, 3) instructor’s effectiveness, 4) usefulness and applicability to teaching, and 5) support (see Figure 9). Blended learning was lauded for bringing a community of learners together and providing engaging and relevant professional development. This study confirmed the work of Kintu et al. (2017), which concluded blended learning design elements, learning environment, and learner attitudes are significant predictors of blended learning effectiveness.

![Factors Impacting Teachers' Perceived Effectiveness of Blended PD](image_url)

*Figure 9. Factors impacting teachers’ perceived effectiveness of blended PD*
**Blended learning within a Community of Practice.** The quality of the blended learning experience in a research study of blended PD for K-12 teachers was attributed to the course design, as well as the content. Teachers cited face-to-face sessions as engaging and helpful for learning instructional strategies. Participants also appreciated being able to work independently and having access to review online content when needed. Blended PD within a CoP led to a deeper understanding of content and perceptions of effectiveness for professional development experience.

**Collaboration/Engagement.** In some cases, teachers preferred blended PD over totally online offerings. This finding supports research of blended learning for adult learners. Zorn-Arnold and Conaway (2016) discussed how adult learners may feel disengaged, frustrated with technology, or isolated when working in all online courses. By incorporating blended PD within a CoP negative feelings and perceptions may be reduced. Forty-two percent (24 out of 57) teachers who participated in the study commented how face-to-face sessions were engaging and collaborative. Teachers appreciated being able to ask questions regarding the content and participate in activities where instructional strategies were modeled. Teacher 16 summed up the experience by saying, “Class meetings keep me from feeling overwhelmed or lost in the content, wondering if my own understandings of the content are correct. I was also never unsure about the assignments since we worked on these as a group, as well.”

School systems should strive to enhance collaboration among staff. Teachers commented on the value of working together and building on-going relationships within a CoP. When asked during interviews if participants would stay in touch with cohort members, one teacher who was new to a school building commented “…so I got to meet people that I wouldn’t normally have met ….But it also helped foster relationships with other people…I would walk down to the gym teacher about something that he was working on a formative assessment” (Teacher 12). Teacher
4 commented on how the course would be used as a catalyst to improving instruction among team members, “We also came up with a plan on how we were going to implement it throughout the whole school…so we’re going to implement it (FAME) and start running some informational workshops…” The learning of a CoP continues beyond the confines of the course and school systems should recognize the value of investing in quality blended PD.

Jones et al. (2016) noted how technology and online tools may be used to continue the work of the CoP who had shared experiences, interests, backgrounds, and commitment to a topic. While some teachers noted they would be interested keeping in touch with other course members within school teams or pre-established small groups, other members discussed how email and Office 365 Teams could be used to continue the work of the CoP and how information had already been exchanged. Several teachers were committed to keeping abreast of new information and taking more courses related to the content of the CoP. School systems should provide methods for CoPs to keep in contact beyond the course. Technological tools such as a learning management system or email group could help keep communication among CoP members open.

**Convenience/Autonomy.** Conaway and Zorn-Arnold (2015) noted adults have diverse needs and reasons for taking online courses. Adults’ learning is based on experience and is more learner centered. The research study of blended PD found many teachers were self-directed and appreciated the time and place to get work done. Pacing and flexibility in completing assignments was important and teachers had multiple resources for learning content. One of the courses studied included videos and online articles, so the blended learning platform allowed teachers to review information as needed or work ahead if desired.

In other cases, teachers discussed how blended learning met individual learning styles and preferences, as well as allowed teachers to self-pace learning. Blended PD has potential for
being as effective as online or face-to-face courses but time management and self-discipline for completing online tasks can be a challenge for some (DeNisco, 2014; Shand & Farrelly, 2018). Teacher 16 admitted, “I’m the kind of learner who can’t sit and stay focused for long, but I really benefit from collaboration with my peers.” Teachers in blended PD confirmed getting tasks done was an activity needing to be scheduled in already busy professional and private lives. Even with these outside pressures, several teachers expressed eagerness for face-to-face sessions to share knowledge and to extend online discussions.

Blended PD provided authentic relevant experiences and contributed to perceived effectiveness of the courses. School systems should model and promote individualized learning for teachers who are expected to share 21st century digital literacy skills with students. Blended PD has potential for not only teaching course content, but for training teachers on how to use informational technology. In some cases, teachers mentioned the skill of the instructor was a factor in seeking out similar professional development courses. When asked if blended learning should be used for professional development, the response was unanimous; 100 percent (16 out of 16) teachers who were interviewed said yes!

**Instructor’s effectiveness.** Richardson et al. (2015) posited teacher presence is important for creating effective online communities. Instructor feedback and presence is a critical component of the blended learning experience. Teachers enrolled in blended PD have two ways of receiving feedback, either online or face-to-face. For the teachers enrolled in blended PD, the instructor was viewed as both a facilitator of the CoP and expert in the domain. Teachers stressed the importance of the face-to-face interaction with the instructor for learning new content. Teacher 49 commented, “She did a lot of the learning with us and in clarifying some things too…so she certainly was more experienced in formative assessment than we were.”

The instructor’s role also extended to the online community. The instructor would
facilitate the learning and provide resources and support via email or by phone. Teacher 38 noted how blended PD is better than just online when understanding assignments, “…if you have questions, or you’re unsure, like writing an email doesn’t always clarify it. The way that being able to talk to somebody in person does.” These findings and comments from teachers suggest, for school systems to host productive blended PD courses, instructors should be familiar with content and needs of online learners.

Although Banna et al. (2015) noted how instructors should pay attention to the technical demands of the course to alleviate students’ anxiety and reduce frustrations, most teachers only asked for help in accessing LMS during face-to-face classes. One teacher shared how the instructor had students submit online work in class to be sure the documents were uploaded correctly. Sixteen teachers commented how facilitators in the CoP were knowledgeable, engaging, and supportive. In some cases, teachers expressed the blended PD was the best experience with professional development they ever had. The face-to-face time with instructors was appreciated for being efficient, well-organized, and fun.

Allen (2016) noted adult learners want to feel appreciated and valued while being able to take away something useful from the time spent online. Teachers want to be sure the professional development they receive can be used in the classroom with students. Five of the 16 teachers interviewed had tried new instructional strategies right away, even at the end of the school year. Other participants shared an eagerness to try out new strategies as returning to school in the fall.

**Usefulness or applicability to teaching.** Fifty-four of the enrollees who participated in the questionnaire about blended PD were classroom teachers and a common theme for the CoP among learners was the applicability to teaching and proposed impact on student achievement. Teachers want to be sure the professional development they receive can be used in the classroom
with students. Schleicher (2016) recognized the value collaborative professional learning in promoting teacher self-efficacy and higher rates of job satisfaction. For teachers enrolled in blended PD, perceived effectiveness was influenced by usefulness and interest in the course topic. Both courses in the study were meant to provide new instructional strategies for current best practices to improve teaching. While comments about specific content were not included in the data, the topics were contributing factors of applicability to teaching.

All 16 teachers who were interviewed found the blended PD courses useful, informative, and relevant. Allen (2016) suggested online and blended courses should appeal to the needs, life experiences, and interests of adults. Blended PD should be considered a viable option for delivering instruction to working educational professionals. Arghode et al. (2017) noted a constructivist approach is important when working with adult learners. Adults have different needs than children and bring a variety of background experiences to the learning. Courses should also help learners construct meaning, encourage peer-to-peer and student-to-teacher interactions, as well as be practical in the ‘real world’. Both blended PD courses provided teachers with modeling of strategies and time for reflection, which helped inform teaching practice. School systems should consider blended PD opportunities where in-class modeling of strategies is needed, but time to reflect and work independently can be done at home.

Teachers’ Motivations for Participating in Blended PD

Blended courses are consistently rated in the research as superior to fully online courses and motivation for choosing an online format is largely attributed to convenience and flexibility (Conaway & Zorn-Arnold, 2016). This study of blended PD conducted in a K-12 setting matches the findings for higher education. Research findings indicated most teachers are either highly motivated or somewhat motivated to attend blended PD. Four themes emerged from data regarding teachers’ motivation to participate in blended PD which include: 1) flexibility, 2)
collaboration, 3) professional growth, and 4) job requirement/recertification (see Figure 10).

**Flexibility.** A key idea for motivating teachers prevalent in research findings for blended PD was flexibility. Blended learning has been recognized by educational leaders as a convenient and meaningful method for conducting professional development (Long, 2018a). Twenty-six percent (15 out of 57) teachers who participated in blended PD shared an appreciation for the flexibility of blended learning. The method saved time and allowed work to be done at a pace and place of one’s own choosing. Siko and Hess (2014) noted how traditionally the only options for professional development in K-12 settings were workshops or training offered after school or on weekends. Use of an LMS to deliver blended PD could change the scope of professional development for teachers.

![Factors Impacting Teachers' Motivations for Participating in Blended PD](image)

**Figure 10.** Factors impacting teachers’ motivations for participating in blended PD

Cuesta Medina (2018) found utilizing a combination of asynchronous and synchronous methods meets different needs and learning styles of participants. The study reported flexibility and variety of learning materials are benefits of blended learning courses. This study confirms how flexibility and convenience support adult learners. Teachers who participated in blended
PD were motivated by being able to save time in face-to-face classes, as well as by working independently or reviewing information in the online platform as needed. School systems should not assume teachers have unlimited time and energy to commit to learning in traditional workshop formats and should offer more flexible and convenient forms of professional development.

**Collaboration.** Banna et al. (2015) recognized teachers who participate in online learning desire personal interactions in face-to-face or synchronous online settings. Siko and Hess (2014) found teachers felt face-to-face sessions were more worthwhile and were motivated to attend even if the extra time in class made the professional development less convenient. Teachers who contributed to the study confirmed these findings, with many saying how, as members of a community, meeting and discussing content with other teachers was important. The value of community extended from online discussions to face-to-face conversations. Teacher 23 summarized the importance of the face-to-face meetings by saying, “I like the opportunity to be able to actually try out what I learned in a real-life situation and then get feedback from my peers.”

Communities of teachers could develop out of a need to improve both instructional practice and teachers’ technological knowledge. Blended PD for teachers could assist in fulfilling this need. In this research study teachers needed to navigate technology and understand online content, but the community was more-often called upon for help with new information on the topic and to share ideas for classroom application of strategies. In extreme cases, teachers commented on how technological assistance was needed to be able to access content and how community members took responsibility for helping each other with technological issues.

A CoP can support teachers who are not comfortable with technology. Theodosiadou et al (2017) considered how professional development should be current and applicable to 21st
century skills. This study confirms those ideals. Teachers admitted to being apprehensive about working online, but when able to commiserate with a community of learners, the apprehension and fear was mitigated. This collaborative environment helped to instill 21st century skills such as working online to teachers who would otherwise only seek out traditional forms of professional development. Palmer (2015) identified characteristics of a 21st century teacher and reported on the value of blended PD for improving teachers’ technical knowledge. School systems who offer blended PD with opportunities to collaborate and mitigate problems of online learning, may produce more technologically savvy and satisfied employees who are motivated to participate in professional development.

**Professional growth.** A need for professional growth and professional interest in the topic was a primary factor in teachers self-enrolling in blended PD. Twenty-six percent (15 out of 57) teachers identified professional growth as the primary motivation for participating in the blended PD course. While the idea was raised to bring in more technology, many teachers were initially motivated not by the methods, but by the content of the course. In some cases, teachers did not know there was an online component of the class, but once involved in the course, embraced it. One hundred percent of the teachers interviewed welcomed the opportunity to participate in blended PD in the future. Teacher 13 shared the plight of the classroom teacher, “…a lot of teachers like me already have an extended day….You might have a free moment during your weekend where you can get your assignments done so I definitely would be more motivated to do a blended class.”

Fullan and Hargreaves (2016) called for more ‘collaborative professionalism’ and charged teachers with finding and fostering professional learning and development. The authors noted professional learning may involve developing a mindfulness on the topic, intellectual stimulation for its own sake, team building, or reflecting on a topic. This study of blended PD
for teachers corroborated this understanding of the importance of professional growth for teachers. Teachers within the CoP may have chosen to continue learning beyond the course and share information among staff members. Teachers who participated in the study shared how the CoP would continue at the county or school level. School leaders including team leaders and department chairs made plans to share information with other staff members during professional development workshops or faculty meetings. In two schools, the teachers involved in the CoP were planning to work as a grade-level team to try new instructional techniques with students. A commitment to learning and sharing new knowledge was a common theme for motivating teachers to choose initially and continue work within a CoP.

**Job requirement/Recertification.** Twenty-five percent (14 out of 57) teachers cited a need for recertification credits as a reason for participating in blended PD. While the credit themselves were needed, one teacher commented, “I’m interested in anything that can make me a better teacher in my class” (Teacher 49). A study by Dziuban et al. (2019) indicated students prefer the convenience of all online courses, with the major motivational factor being not having to come to class. Teachers who needed credit, but also wanted to learn new strategies, chose classes where the blend of online and face-to-face cut down face-to-face time but did not eliminate contact completely. Teachers who participated in blended PD were able to schedule in the fewer number of classes and online coursework around busy schedules, which contributed to teachers’ motivation to participate in the professional development. Teacher 2 had a message to share stating, “(Blended PD) gives teachers a chance to spend less time out of their classroom…when you can do at least half if not more in a virtual forum at your own pace and time.”

School systems may also want to consider the advantages of bringing blended PD into schools. Several of the FAME courses were school-based which allowed teacher to collaborate
at a convenient time and location, as well as follow up or get support from colleagues. By training staff to conduct blended PD, school leaders could use technology to enhance in-services, faculty meetings, mandatory safety training, and provide curriculum updates. Travel costs and building use for county-wide in-services could likewise be reduced with the use of asynchronous or synchronous school-based training using blended learning methods.

Darling-Hammond (2015) called for school systems to provide collaborative, flexible, affordable, and efficient staff development to keep up with the technological demands of the 21st century. Bostancioglu (2018) added the use of technology should be a concern for school systems who want to provide professional development for teachers to prepare them to be able to teach 21st century skills to students. Teachers who participated in blended PD commented on a need for more professional development using technology and blended learning methods. One of the teachers with blended learning experience commented how Web 2.0 technologies such as webinars or online meeting tools could be used to facilitate synchronous learning. “…you could also offer a whole lot more in regards to variety of professional developments because then again you’re not stuck in a room” (Teacher 5).

**Findings Concerning Challenges of Blended Learning Professional Development**

While not specifically addressed through the research questions, understanding the challenges and points of concern for participants in blended PD can help to improve future PD offerings. For some teachers, no matter how convenient the professional development is, there remains a concern for being able to have the time to participate and to be able to attend all face-to-face sessions. Technological skill may be a disadvantage or concern for teachers who lack experience working in online and blended environments. Both concerns can be addressed in course design and preparation of course facilitators. The study also found access to technology cannot be assumed even in 21st century K-12 public education, and school officials should strive
to support blended PD with infrastructure and technology to assure the best possible results.

**Limitations**

Limitations in scope of the study were identified and recognized in the research design. A phenomenological study of blended PD within a Community of Practice for K-12 teachers was limited to teachers who had self-enrolled in professional development courses for one suburban school system in southern Maryland. The total sample pool came from two different courses each with pre-established curricula and methods for delivering content. Courses ended prior to or during the summer term and participants were recruited after the learning had taken place. Those who opted in may have already been predisposed to having positive attitudes and perceptions of blended PD. A further limitation was teachers had to ‘opt-in’ to research study by accessing email over summer break and recruitment was done by Director of Staff Development for the School System per IRB requirements.

Transferability, or generalizability of findings to individuals, sites, or places outside of study was encouraged through use of a research log outlining research procedures (Glesne, 2016). Research was limited in scope to a K-12 setting using blended learning with pre-established CoPs. Though other school systems likely use blended learning for professional development, outside researchers may have challenges gaining approval for investigative studies with teachers. Guidelines for conducting research in K-12 settings are very explicit and could be a deterrent. Participants were not allowed to complete research questionnaire or interviews while working, nor could teachers meet on school property without express permission of a school principal. The research plan avoided these pitfalls by establishing procedures for conducting research using online tools over summer break. School systems will likely have stricter guidelines for accessing teachers during the school year and may limit means for recruiting participants.
Since courses were designed as blended learning, facilitator knowledge of how to manage the LMS contributed to teachers’ attitudes and perceived effectiveness of the learning. The school system trains course instructors in blended learning methods and how to manage courses in an LMS such as Moodle. Instructors were not identified in the study, and there is uncertainty whether all instructors participated in training prior to teaching the course. Seaman et al. (2018) identified a weakness of online learning is, in some cases, instructors or educational leaders may not be willing to use online tools. While participants commented on the engagement of face-to-face meetings, online learning was relegated mostly to discussion boards. Although both courses incorporated online activities, participants admitted discussions and collaborative opportunities were saved for face-to-face meetings. In some cases, teachers participating in blended PD expressed frustration or dissatisfaction with the technology which may have been an indication the infrastructure was not in place to handle the course load or instructors may not have been equipped to support online learning.

Dependability of research was improved by use of van Manen’s Six Step Approach to Hermeneutic Phenomenology (van Manen, 2016). Use of researcher log allowed interpretations of data and reflections on research process. Chapter 4 included data from 57 research participants, including 16 interviewees. A limitation of a teacher conducting research in a school system is some participants may be known. Glesne (2016) called this conducting research in one’s own backyard and recognized the concern as a common occurrence in qualitative studies. Upon review of questionnaire data and consent forms, nine participants were known colleagues; however, none were subordinate, and this status did not impact findings. To ensure dependability and reduce bias, triangulation of data from an online questionnaire and semi-structured interviews provided multiple points for analysis (Creswell & Creswell, 2018).

Credibility was enhanced through use of expert panel for developing questions used in
questionnaire and semi-structured interviews. An eight-person panel reviewed questions prior to study. Questions were developed to align with research questions. Peer review of research chapters also provided a means to corroborate findings. A research log contributed to credibility. When analyzing data, the bridling process explained by Dahlberg and Dahlberg (2003) revealed interpretations and influence of researcher’s past experiences with blended learning.

Triangulation of data from research questionnaire, researcher log, and recorded interviews promoted confirmability. Immediately following interviews, recordings were sent to a vetted source for transcription and participants were directed on how to review transcripts. Once transcripts were received, descriptive coding was completed to reveal key ideas and themes. Transcripts, which had already been coded, were then sent to participants for member-checking. Birt et al. (2016) explained member-checking as respondent validation and recommended researchers share initial coding to make member-checking more than simplistic editing. The process is recognized as a way of enhancing credibility of results and confirmability of findings.

**Recommendations**

A phenomenological investigation of teachers’ blended learning for professional development was framed by Wenger’s CoP theory and Knowles’ adult learning theory. Three research questions guided the study regarding teachers’ attitudes, perceived effectiveness, and motivations of blended PD. Data were collected from an online questionnaire and semi-structured interviews. The study found teachers who participate in blended PD are generally positive about the experience. Satisfaction was mainly due to collaboration during face-to-face sessions and support of the community. Overlapping themes helped to interpret teachers’ attitudes and perceived effectiveness of blended PD. Teachers who have professional knowledge of teaching practice and generally positive attitudes towards learning, measure effectiveness of
blended PD by the quality of what is learned, how learning takes place, and how the learning impacts teaching.

Teachers who are motivated to participate in blended PD are usually primarily interested in a topic and have a desire to improve classroom instruction. The structure of the course, recertification credits, and other external factors are secondary to wanting to impact teaching and learning. This study concluded teachers who are motivated to participate in blended PD have similar needs to other adult learners including a need for convenient, effective, and practical training (Conaway & Zorn-Arnold, 2015). Research of blended PD indicated teachers are motivated by a desire to improve both personally and professionally in order to bring about changes in classrooms and schools.

Blended PD for teachers should be a goal for school systems who want to provide convenient, affordable, and efficient professional development without limits of time, space and pace (Blitz, 2013; Darling-Hammond, 2015). While definitions of blended learning vary, researchers describe the construct as a blend of technological and traditional methods where activities take place inside and outside of the classroom (Atef & Medhat, 2015). Teachers, like other adult online learners, appreciate being able to learn anytime and anywhere (Zhang et al., 2016). Flexibility and autonomy of online methods coupled with collaborative and supportive face-to-face activities has potential to promote positive, effective and motivating experiences for teachers who need or desire professional development on a topic. One factor undisclosed by participants in this study was affordability. This omission may be due to the supplemented fee and/or stipend offered by the school system or the personal nature of the topic.

Online communities of practice, which combine blended learning with andragogical theory, may be able to provide flexible, accessible, and cost-effective solutions for training staff and to prepare teachers to work in 21st century technological environments (DeNisco, 2014;
Nguyen, 2015; Opfer & Sprague, 2018). In public school systems, school leaders should continue to offer blended PD to encourage communities of practice and improve technological skills of teachers. Online sessions could provide virtually limitless amounts of resources to access and use to improve teaching practice, while face-to-face meetings could provide the collaboration and support desired by adult professionals working towards common goals (Arghode et al., 2017; Banna et al., 2015; Zorn-Arnold & Conaway, 2016).

Research on the use of blended PD in K-12 settings is limited (Barbour, 2017; Means et al., 2013). This study recommends qualitative and quantitative studies should continue to explore blended learning environments in different contexts which are broader in scope (Nguyen, 2015). A phenomenological investigation has provided information on teachers’ attitudes, perceived effectiveness, and motivations regarding blended PD using an online questionnaire and interviews. Quantitative studies should examine teacher engagement and instructor involvement from within an LMS. This information could lead to better understanding the needs of teachers and instructors during blended PD and the interaction within an online environment, which could influence course design and technical support offered by school systems.

**Implications for Leadership**

The concept of blended PD is a growing practice. There is a need for educational leaders to train and support blended learning instructors and students. *National Education Technology Plan* provided suggestions for on-going professional learning. “Professional learning and development programs should transition to support and develop educators’ identities as fluent users of technology; creative and collaborative problem solvers; and adaptive, socially aware experts throughout their careers” (U. S. Department of Education, Office of Educational Technology, 2016, p. 34). The plan sets the stage for a shift in professional learning and
development for teachers, which mirrors the needs of 21st century skills for students.

Improving professional development and increasing student achievement requires a community of learners to come together to discuss teaching practices (Long, 2018b). Schleicher (2016) provided a global context for professional development by examining international assessment scores, and found OECD countries, which promote and support professional collaboration, have better results on PISA. Also, countries who promote collaboration have teachers who are more satisfied and motivated by the professional development experience (OECD, 2016). Allegretto and Mishel (2016) found teachers who feel undervalued and under supported leave within five years or less to seek out higher pay and less stress. School systems utilizing blended PD may not only motivate teachers to improve teaching practice, but also to stay in the profession.

School systems and stakeholders will require guidance from educators and leaders in online education on what blended PD should look like and feel like for classroom teachers. This study highlights the need for highly trained professional staff to facilitate online and blended learning in K-12 settings. School systems should consider training instructional leaders to improve professional development offerings for teachers, provide technological infrastructure to support blended learning, and model the use of technology with classroom teachers. There should be trained personnel and educational leaders to manage professional development courses within an LMS. The use of learning communities and blended PD could provide the necessary support and collaboration to build knowledge of content for new instructional strategies, as well as model technological skills which could be used with students. While online learning affords teachers autonomy, blended PD assures accountability and collaboration. Teachers involved in a CoP using blended learning need technological, instructional, and financial support to work
effectively and to change teaching practice.

**Conclusion**

Professional development of K-12 teachers, which incorporates the flexibility and convenience of online learning with the collaboration and support of face-to-face instruction within a CoP, may have far-reaching and long-lasting impact on student achievement. Blended PD may encourage engaging, effective, and motivating training with added benefits of flexibility, cost-effectiveness, and accessibility for adult learners. This study has recognized there is a need for improved instructional techniques and educational policies which promote fair and equitable access to technology and online resources, as well as collaboration and support for classroom teachers. Blended PD has potential to improve professional development of K-12 teachers by providing an engaging, effective, and motivating experience, while promoting skills necessary for students and teachers to succeed in the 21st century.
References


Conaway, W., & Zorn-Arnold, B. (2016). The keys to online learning for adults: The six principles of andragogy, part II. *Distance Learning, 1*(1), 1-6.


Paskevicius, M., & Bortolin, K. (2016). Blending our practice: using online and face-to-face methods to sustain community among faculty in an extended length professional


Appendix A: Department of Research and Assessment Independent Research Request Form

Please complete this form in full. If spaces provided are not sufficient, submit on open-ended form that duplicates all headings and questions as they appear on this form. Failure to respond to any item may result in the rejection of this request. (NOTE: Respond with ‘N/A’ if a question does not apply to your study.)

<table>
<thead>
<tr>
<th>RESEARCHER INFORMATION</th>
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<tbody>
<tr>
<td>List the name(s) and titles of the author(s) of the study:</td>
</tr>
<tr>
<td>Linda M. Forrest, Reading Resource Teacher</td>
</tr>
<tr>
<td>Telephone Number:</td>
</tr>
<tr>
<td>301-643-8497 (c) X 136603</td>
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<tr>
<td>Identify the institution/organization sponsoring the study:</td>
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<td>American College of Education</td>
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<th>OBJECTIVES</th>
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<td>State the objective of your study:</td>
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<tr>
<td>The purpose of this descriptive phenomenological study is to investigate teachers’ perceptions and motivations to learn while engaged in blended learning professional development.</td>
</tr>
<tr>
<td>Cite your research question(s):</td>
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<tr>
<td>RQ1: What is the perceived effectiveness of blended learning for online professional development of K-12 practicing teachers?</td>
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<tr>
<td>RQ2: How does blended learning impact teachers’ attitudes towards learning and motivation to participate in online professional development?</td>
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| State study rationale (Why is this study important?): |
| The literature on blended learning primarily focuses on higher education settings and the impact on students enrolled in higher education institutions, but there is a call for more exploration of blended learning for blended professional development (PD) of teachers in K-12 settings. School systems have been charged with providing staff development which is flexible, affordable, and efficient. The concept of blended PD has potential to help teachers improve their professional development experience and reduce the barriers of time, space, and place. This research study will examine the experiences of K-12 practicing teachers in Maryland who participate in a Community of and provide an in-depth look at teachers as adult learners. |

| How will data from this study benefit the school(s) studied or CCPS? |
| By observing courses, questioning participants, and interviewing teachers who participated in the blended PD, the researcher will have multiple perspectives of experiences as shared by the participants. The study is necessary to develop methods for effective professional development. The benefit of phenomenological study is teachers will be able to share the experience in their own words elaborate on the benefits and drawbacks of blended learning professional development model. At the end of study, research findings will be shared with |
participants, school system leaders, and other agents, which could influence future design and offerings for professional development.

State the requirements for staff/teacher participation in terms of time and level of effort, if any:
The end-of-course questionnaire consists of 12 questions—11 selected response (4, 2-part questions that require open-ended response), and 1 open-response

Describe your efforts to reduce impact on student instructional time:
The questionnaire and interviews will take place during the professional development time of teachers, not during school hours.

DATA COLLECTION

Identify the CCPS school(s) that will be involved in this study: Multiple schools will be represented in the study as determined by course enrollment.

How much time will you need to collect all the data for your study? (indicate days per school)
The data collection will take place over the course of one semester using the online learning platform Moodle. Data will not be collected with students during the school day, instead it will take place with teachers during their professional development experience. Face to face or online interviews will take place outside of school and teacher work hours.

Suggest multiple dates on which you will be available to come to each school. n/a I will not be in contact with any teachers at the school level until face-to-face interviews and these will take place with a select number of 5-7 volunteers who agree to meet outside of school hours.

Describe the content of the instrument(s) that will be used:
An end of course questionnaire will ask 12 total questions. There will be questions regarding professional background and experience with professional development and online or blended learning, as well as 3 questions addressing the research questions regarding perceived effectiveness, motivation, and the role of blended learning in facilitating and spreading knowledge within a Community of Practice.

Open-ended interview questions will seek to share the lived experiences of the participants in the blended learning professional development course.

Field study observations of course discussions and activities will take place with Moodle.

Describe how the instrument(s) will be administered:
Participants will be voluntarily complete the questionnaire and select members will volunteer to participate in one-on-one interviews. Observations will be on-going throughout the course.

Describe special accommodations, if any, for special populations (e.g. Special Education/ESOL/etc):

Teachers who prefer a printed questionnaire will be offered one. Also, face-to-face interviews may take place in person on online according to the needs and schedule of the participants.

SELECTION:

Identify target population (number of students or classrooms, grade, age, etc.):

I hope to get 25-30 total participants from 1 or more schools and 5-7 to interview face-to-face
Indicate selection/sampling procedures to be used:

Purposive sampling will be used from teachers who self-enroll in a professional development course.

Describe intended data analysis procedures:

The researcher will follow the guidelines provided by experts in the field to position the researcher as observer without bias or threat to the credibility of the conclusions (Yilmaz, 2013). The researcher will contact participants to make presence in the LMS known prior to conducting observations (Creswell & Creswell, 2018; Moustakas, 1994). During the course, there will be no contact made to participants which may influence or bias the research. The researcher will take electronic field notes in a Microsoft Word document. Field notes will be kept within the personal Dropbox of the researcher. Field observations will consist of viewing discussion boards and activities posted in the online portion of the course. Data from observations will be saved in a secured file to be coded later.

An end-of-course questionnaire will be loaded by the researcher and added to final online learning module (OLM) of the course. As participants complete the questionnaire, responses will be saved within Moodle LMS. Responses will be transferred to a Microsoft Word document, so they can be coded and analyzed. Responses will only be viewed by the course instructor and the researcher. Results will not have any bearing on grades or evaluation of participants.

Questions for semi-structured interviews will be kept outside Moodle LMS within a secured personal file management system, Dropbox. Interviews will be recorded using Rev, an app made for Apple iPhone IOS, which includes an option to send recordings out for human transcription. Once files are recorded, they will be sent to Rev to be transcribed for coding. The researcher will provide participants with copies of the transcripts for member-checking. Member-checking will allow interviewees the opportunity to revise statements and promote validity of research (Creswell & Creswell, 2018). Data will be kept securely within the Rev app and on a personal computer with secured access.

All questionnaire data will be collected from Moodle LMS or and exported into Microsoft Word. Field notes and interview transcriptions will be kept in Microsoft Word. Data will be cleaned and organized prior to analysis. Interview transcriptions from the audio recording software will be reviewed for accuracy and any errors will be noted and corrected.

Qualitative data analysis procedures for manual coding of data will be followed. First, the researcher will highlight certain information from the field notes, write reflective messages regarding the subject, and summarize the field notes. Categories from the findings will be listed as codes then analyzed for themes. A narrative analysis and summary of the findings will be written.

DISSEMINATION:

Where will the data and/or report be published?

The dissertation research will be published by American College of Education and may be available on dissertation databases including ProQuest.
Describe your efforts to ensure confidentiality:

Ethical considerations in qualitative research include informed consent, confidentiality, and anonymity when utilizing human subjects. Participants will not be penalized if they choose not to respond to the questionnaire, and research subjects will not be named or identified in final dissertation. All research documents will be kept private and secure within administrative files of Moodle LMS and in a password-protected Dropbox electronic file. All IRB guidelines for conducting research with human subjects will be followed and anonymity of participants will be preserved.

Describe your efforts to ensure that all data, analysis, and final report are shared with R&A, school principal(s), staff, and other affected parties:

At the end of study, research findings will be shared with participants, school system leaders, and other agents, which could influence future design and offerings for professional development. Teachers who participated in the study will provided the personal contact information of the researcher in order to follow-up with the study after it is approved and published.

Copies of the dissertation will be made available in a shared MS365 folder.

ADDITIONAL REQUESTS SPECIFIC TO THIS PROJECT
(Additional requests, if any, will be included in this section)

Please attach the following:

- Copy of all instruments to be used, in their final form
- Parent permission forms for all students who will participate
- Any other pertinent information that was not requested above

Signature of Researcher:

Date Submitted:
Appendix B: Research Approval Letter

Linda Forrest  
Reading Resource Teacher, General Smallwood Middle School  
Charles County Public Schools  

April 9, 2019  

Dear Ms. Forrest,  

This letter is to inform you that your qualitative study, Investigating Teachers’ Perceptions and Motivations to Learn While Engaged in Blended Learning Professional Development, has been approved. You may interview CCPS school teachers participating in Moodle as described in your methods, but please keep in mind that they are not required to participate in your study. You must keep to the methods and procedures described in your request to conduct research in the Charles County Public Schools.  

If you have any questions or need assistance following through with your research, please contact my office.  

All the best with your doctoral study.  

Regards,  

[Signature]  

Emily Cole Bayer, Ph.D.  
Coordinator of Evaluation  
Charles County Public Schools  
Tel: (301) 934-7304  
Email: ecolebayer@ccboe.com
Appendix C: Recruitment Announcement and Email

To: All Prospective Research Participants enrolled in Blended Learning Course

Re: Dissertation Research Study: Consent Form and Questionnaire on Blended Learning

Hello,

My name is Linda Forrest. I am a Reading Resource Teacher at General Smallwood Middle School and a doctoral candidate with American College of Education. I am writing to let you know about an opportunity to participate in a research study regarding your recently completed professional development course. You were enrolled in a blended (partially online and partially face-to-face) course using Moodle. My research is examining the perceived effectiveness of blended learning, as well as teachers’ motivations for participating in blended professional development within a Community of Practice.

As a participant in a course which used blended learning with Moodle, you have been identified as a possible participant for this study. Your participation in the study is voluntary and your participation in the course does not obligate you to participate. As a Charles County Public Schools Employee, I have obtained permission to conduct research with the Department of Research and Assessment and my university’s Internal Review Board.

You may be worried about the time commitment or confidentiality. While there are two components of my research that will be used in the study, your time to complete the course will not be impacted. You will not notice anything different. After you complete your course, you will be asked to complete a questionnaire which will ask you about your thoughts on learning in a blended environment. The questionnaire is optional and will take approximately 5-10 minutes to complete. It will not be graded or shared with your instructor but will be used in the data collection. Second, if you agree, you may be asked to participate in an online interview with me. The interviews will take place after the course has completed and not all participants who complete the course will be interviewed. The interviews will take place privately using Zoom, an online webinar tool. I would need no more than 30 minutes of your time. You may complete the questionnaire and not do the interview, or you may opt out of both. I will use an outside transcription service found at https://www.qsrinternational.com/nvivo/nvivo-products/transcription to transcribe interviews. If you choose to participate, then change your mind, you can withdraw at any time. Your participation is not graded, your information will be kept confidential, and your course instructor will not see the data.

I sincerely hope that you will consider participating in this study. Your thoughts and perceptions on professional development are valued and your responses may help make decisions regarding future professional development. This study will be published; however, I will not use your name or identify you in any way. I may summarize results or present findings at a conference or in a professional journal. I will not share your responses with your course instructor or anyone else and your responses will be kept anonymous by using a number system for which only I have the key. Data will be kept secure in Dropbox. If you’d like more information about the research procedures, you may email or call me.

Thank you again for considering this dissertation research opportunity. A consent form and questionnaire is available at Consent Form and Questionnaire on Blended Learning should you agree to participate.

Sincerely,

Linda M. Forrest
Reading Specialist, General Smallwood Middle School
Doctoral Candidate, American College of Education
Appendix D: Informed Consent

Directions for the Participant: Please read this consent form carefully and ask any questions you may have before deciding whether you would like to participate in the study. The researcher is available before, during, and after your participation in the research.

Project Information: A Phenomenological Investigation of Teachers’ Perceptions and Motivations to Learn While Engaged in Blended Professional Development

Linda M. Forrest, the researcher at American College of Education, has explained to me the purpose and benefits of the research study and has explained to me the following:

1. My participation is voluntary.
2. I can withdraw from the study at any time.
3. My information and contributions are confidential.
4. I will remain anonymous, and my name will not be shared with any other organizations.
5. A third-party transcription service which is bonded and secured will be used to process interview comments and discussion.
6. The study may be published, and the findings of the research study will be managed so that sources of information cannot be identified.
7. I can contact her at lforrest@ccboe.com or 301-753-1786 (X136603) for questions. I may also contact the committee whose role is to make sure research participants are protected from harm IRB@ace.edu

I have read and understand the study and have had the opportunity to ask questions. I further understand that Mrs. Forrest has not asked me to sign any other agreements, and there are no payments or remunerations for the study. This is the only consent form. I understand these terms and give my consent to voluntarily participate in the research study.

Click yes or no to indicate your consent on the electronic feedback form.

Or, you may provide an e-signature and return this form to lforrest@ccboe.com

Thank you.
Appendix E: Questionnaire

Thank you for agreeing to complete this questionnaire. This study has been approved by the Department of Research and Assessment. The purpose of this study is to better understand how blended learning impacts professional development. Please understand that your responses are secure and do not have any influence on your grade or the outcome of this course. At any time, you may withdraw from the research by closing the questionnaire.

1. After reading consent form, I have read and understand the study… (Provide e-signature)

2. I consent to participate in the research study and will complete the following questionnaire. If yes, then click yes and continue. If no, you may click no or simply close the questionnaire. Thank you for your time.

3. Did you complete all of your course requirements? This means did you complete all assignments online and attend the face-to-face sessions.
   a. Yes
   b. No

4. What is the highest degree you hold?
   a. High School Diploma
   b. 2-year college certification
   c. Bachelors
   d. Masters
   e. Masters + special certification (Admin, Special Ed., etc.)
   f. Doctorate

5. Do you hold a Maryland State Teaching Certificate?
   a. Yes
   b. No

6. Are you taking this course for recertification credit?
   c. Yes
   d. No

7. How many years have you been teaching for CCPS?
   a. 0-5
   b. 6-15
   c. 16-30
   d. 31 or more

8. Have you ever taken an online class before this one?
   a. Yes
   b. No

9. Have you ever taken a blended (partially online and partially face-to-face) class?
10. Would you recommend taking a blended learning course to others needing professional development?
   a. Yes
   b. No
   c. Maybe

11. Please explain your response to question 10.

12. How would you rate the effectiveness of blended learning for professional development?
   a. Excellent
   b. Good
   c. Fair
   d. Poor

13. Please elaborate on the effectiveness of blended learning for your professional development experience and explain your response to question 12.

14. How would you rate your motivation to participate in blended learning for professional development?
   a. Very Motivated
   b. Somewhat motivated
   c. Neither motivated nor unmotivated
   d. Somewhat unmotivated
   e. Very unmotivated

15. What motivated you to participate in this course? Are you interested in taking more professional development courses using blended learning methods? Why or why not?

16. Please add any other comments you would like to share regarding your blended professional development experience.

17. Would you be willing to be contacted by the researcher to participate in an online interview lasting from 30-40 minutes?
   a. Yes
   b. No
   c. Maybe-contact to discuss

Thank you for time and consideration in completing this questionnaire.
Appendix F: Interview Protocol and Questions

Interview Protocol and Questions

Name of Interview Participant: ____________________________
Location of Interview: ___________________________________

Thank you for agreeing to meet with me to share your professional development experience using blended learning. As I explained in the recruitment letter and consent form, you are free to withdraw from the research at any time. Since you have agreed this interview, I want to assure you that your responses will remain confidential, though parts of this interview may be quoted in my dissertation. I would also like to remind you that the purpose of this research study is to determine how teachers perceive the effectiveness of blended learning for professional development, how motivated teachers are to participate in blended professional development, and whether the blended learning platform facilitated and spread knowledge among the participants.

I am going to record the interview and may take notes to guide our conversation. This interview will take approximately 30 minutes depending on the elaboration of your responses and any follow-up questions I may ask. I will first ask you some basic questions about your professional background, followed by questions about your professional development, and then about the blended professional development experience.

The purpose of the questions is to prompt your thinking, and I encourage you to take your time to think through your response. After the interview, the recording will be transcribed by an outside service, and I will share a copy with you securely via email so that you may check it and make any revisions. This will take place over the course of the next few days.

Do you have any questions or concerns before we begin?

Which professional development course did you take?

Could you describe it?

Motivation and Experience

1. What motivated you to take this course?

2. Would you have taken this course if it were not offered as a blended learning experience?

3. How would you describe yourself in terms of professional experience? How long have you been teaching and attending professional development?

4. Have you had prior experiences that have been online or blended? Please elaborate.
5. Please describe your experience participating in blended learning including this course and any others that you may have had.

6. If this was not your first experience learning online, how did it compare?

7. Are you motivated to take more professional development courses using blended learning? Why or why not?

**Effectiveness**

8. Do you feel the professional development experience was effective? Why or why not?

9. What are some activities that you participated in during the course?

10. Did blended learning impact your understanding of the content?

11. Did blended learning impact how you collaborated with others?

12. Did the professional development experience impact your teaching? If not yet, how do you think you’ll use the information?

**Attitudes**

13. Do you feel that blended learning should be used for professional development?

14. Were there benefits or disadvantages to blended learning for PD?

15. Is there anything you wish was different about your experience using blended learning? Please explain.

16. What recommendations, if any, do you have for teachers taking PD using blended learning?

17. Is there anything else you would like to share that would help describe what the professional development experience was like for you?
Appendix G: Survey/Interview Validation Rubric

Survey/Interview Validation Rubric for Expert Panel - VREP©
By Marilyn K. Simon with input from Jacquelyn White
http://dissertationrecipes.com/

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Operational Definitions</th>
<th>Score</th>
<th>Questions NOT meeting standard (List page and question number) and need to be revised.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1=Not Acceptable (major modifications needed)</td>
<td>Please use the comments and suggestions section to recommend revisions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2=Below Expectations (some modifications needed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3=Meets Expectations (no modifications needed but could be improved with minor changes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4=Exceeds Expectations (no modifications needed)</td>
<td></td>
</tr>
<tr>
<td>Clarity</td>
<td>• The questions are direct and specific.</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Only one question is asked at a time.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The participants can understand what is being asked.</td>
<td></td>
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<tr>
<td></td>
<td>• There are no double-barreled questions (two questions in one).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wordiness</td>
<td>• Questions are concise.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• There are no unnecessary words</td>
<td></td>
<td></td>
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<tr>
<td>Negative Wording</td>
<td>• Questions are asked using the affirmative (e.g., Instead of asking, “Which methods are not used?”), the researcher asks, “Which methods are used?”)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overlapping Responses</td>
<td>• No response covers more than one choice.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Measure of Construct: A: (effectiveness of blended learning) | • All possibilities are considered.  
• There are no ambiguous questions.  
• The questions are unbiased and do not lead the participants to a response. The questions are asked using a neutral tone.  
• The terms used are understandable by the target population.  
• There are no clichés or hyperbole in the wording of the questions.  
• The choices listed allow participants to respond appropriately.  
• The responses apply to all situations or offer a way for those to respond with unique situations.  
• The use of technical language is minimal and appropriate.  
• All acronyms are defined.  
• The questions asked relate to the daily practices or expertise of the potential participants.  
• The questions are sufficient to resolve the problem in the study  
• The questions are sufficient to answer the research questions.  
• The questions are sufficient to obtain the purpose of the study.  
• The survey adequately measures this construct* (i.e., usefulness, appropriateness, successfulness of outcomes) |
<table>
<thead>
<tr>
<th>Measure of Construct: B: (teachers’ attitudes towards blended learning for professional development)</th>
<th>• The survey adequately measures this construct* (i.e., positive, negative, or neutral feelings or emotions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure of Construct: C: (teachers’ motivations for participating in blended learning professional development)</td>
<td>• The survey adequately measures this construct* (i.e., reasons, explanations, understandings)</td>
</tr>
</tbody>
</table>

* The operational definition should include the domains and constructs that are being investigated. You need to assign meaning to a variable by specifying the activities and operations necessary to measure, categorize, or manipulate the variable. For example, to measure the construct successful aging the following domains could be included: degree of physical disability (low number); prevalence of physical performance (high number), and degree of cognitive impairment (low number). If you were to measure creativity, this construct is generally recognized to consist of flexibility, originality, elaboration, and other concepts. Prior studies can be helpful in establishing the domains of a construct.

Permission to use this survey and include in the dissertation manuscript was granted by the author, Marilyn K. Simon, and Jacquelyn White. All rights are reserved by the authors. Any other use or reproduction of this material is prohibited.

Comments and Suggestions
Types of Validity

VREP is designed to measure face validity, construct validity, and content validity. To establish criterion validity would require further research.

**Face validity** is concerned with how a measure or procedure appears. Does it seem like a reasonable way to gain the information the researchers are attempting to obtain? Does it seem well designed? Does it seem as though it will work reliably? Face validity is independent of established theories for support (Fink, 1995).

**Construct validity** seeks agreement between a theoretical concept and a specific measuring device or procedure. This requires operational definitions of all constructs being measured.

**Content Validity** is based on the extent to which a measurement reflects the specific intended domain of content (Carmines & Zeller, 1991, p.20). Experts in the field can determine if an instrument satisfies this requirement. Content validity requires the researcher to define the domains they are attempting to study. Construct and content validity should be demonstrated from a variety of perspectives.

**Criterion related validity**, also referred to as instrumental validity, is used to demonstrate the accuracy of a measure or procedure by comparing it with another measure or procedure which has been demonstrated to be valid. If after an extensive search of the literature, such an instrument is *not* found, then the instrument that meets the other measures of validity are used to provide criterion related validity for future instruments.

**Operationalization** is the process of defining a concept or construct that could have a variety of meanings to make the term measurable and distinguishable from similar concepts. Operationalizing enables the concept or construct to be expressed in terms of empirical observations. Operationalizing includes describing what is, and what is not, part of that concept or construct.

References


Appendix H: Informed Consent for Expert Panel

Directions for the Participant: Please read this consent form carefully and ask any questions you may have before deciding whether you would like to participate in the study. The researcher is available before, during, and after your participation in the research.

Project Information: A Phenomenological Investigation of Teachers’ Perceptions and Motivations to Learn While Engaged in Blended Professional Development

Linda M. Forrest, the researcher at American College of Education, has explained to me the purpose and benefits of the research study and has explained to me the following:

1. My participation is voluntary.

2. By completing the review, I am authorizing my consent.

3. My contributions will be used by the researcher to further the study.

4. I will remain anonymous, and my name will not be shared with any other organizations.

5. I can contact her at lforrest@ccboe.com or 301-753-1786 (X136603) for questions.

6. I have read and understand the study and have had the opportunity to ask questions. I further understand that Mrs. Forrest has not asked me to sign any other agreements, and there are no payments or remunerations for my participation in the study. This is the only consent form. I understand these terms and give my consent to voluntarily participate in the research study.

Printed Name of participant __________________________ Date: ___________

Signature of Participant _____________________________ Date: ___________
Appendix I: Expert Panel Contributors and Responses

Panel Member #1:
North Carolina assessment consultant for assessing, writing, reviewing, and editing state assessments; Maryland State Department of Education consultant for Maryland State Performance Assessment Program and English Content Reviewer; Consultant Measurement Incorporated writing assessment questions; Adjunct Professor for Bowie State University, Towson State University, and McDaniel Colleges including courses in English, content area reading, and classroom management

Panel Member #2:
Gifted Elementary Teacher and blended learning instructor

Panel Member #3:
High School Resource Teacher; curriculum developer and reviewer for county school system

Panel Member #4:
Professor, Ryerson University; Member Ryerson Ethics Board

Panel Member #5:
American College of Education graduate with focus in online learning; lead-teacher for public middle school; administrator public high school; site coordinator for designing, developing, implementing, and managing an online blended learning platform for at-risk students which informed a curriculum company’s research, analysis, and development of a curriculum platform

Panel Member #6:
Associate Professor of English, Prince Georges County Community College

Panel Member #7:
Candidate Ed. D at American College of Education with focus in Instructional Leadership; State University of New York award for best practice in online teaching; Adjunct Professor Rochester Institute of Technology

Panel Member #8:
English Teacher for 19 years; Content Specialist for English; former instructor College of Southern Maryland; former member of Educators Evaluating the Quality of Instructional Products; Partnership for Assessment Readiness for College and Careers consortium; Reviewer Maryland Comprehensive Assessment Program ELA Rubrics; dissertation reviewer
Appendix J: Sample of Member-Checked Transcript

MM-24 audio.mp4

Themes: interested in topic, support others, learn at own pace and comfort level, convenient, F2F engagement, choice in scheduling OK work, F2F makes OK work shorter, effective, CoP connections and community feel, want to learn, role of facilitator to support and engage learning

R: OK. Do you have any questions or concerns. Before we begin.
R: OK. So thank you for giving me your consent to meet with you today. Could you tell me which professional development you took?
SPEAKER: Restorative practices.
R: OK. Very good. What motivated you to take this course.
SPEAKER: Well it was something that I was really interested in but also it was a large initiative from my school. So you know obviously I wanted to be trained so that I could assist my teachers in my building.
R: All right what is your role in your building.
SPEAKER: Well when I was at my school I was a vice principal. But I have since moved to the Central office and am now working as an Instructional Programs Support Specialist.
R: So you wanted to support the staff that was you mean. OK,
SPEAKER: That was my main objective yes.
R: How would you describe yourself in terms of your professional experience and how long have you been teaching or maybe working in an education and attending professional development.
SPEAKER: I’ve been teaching for almost 19 years. I was a vice principal for seven years and I just moved to central office. I’m an instructional resource support specialist. So, what was the other part of that question I’m sorry. I’m attending professional development.
R: How long have you been attending professional development?
SPEAKER: Since the day I started
R: Okay. That’s a pretty common answer. Yes.
R: Have you had prior experiences that have been blended or online?
SPEAKER: Yes I have. Yes.
R: Could you elaborate on those.