A Comparison of Professional Development Needs of Beginning Teachers in West Virginia Schools

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A COMPARISON OF PERCEIVED PROFESSIONAL DEVELOPMENT NEEDS OF BEGINNING TEACHERS IN WEST VIRGINIA SCHOOLS

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APPROVAL OF DISSERTATION

I hereby affirm that the following project meets the high academic standards for original scholarship and creative work established by my discipline, college, and the Graduate College of Marshall University. With my signature, I approve the manuscript for publication.

Project Title: A Comparison of Perceived Professional Development Needs of Beginning Teachers in West Virginia Schools

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Date: March 30, 2016
DEDICATION

This work is dedicated to Stu and Allyson whose steadfast love and encouragement have supported me along the way. Thank you for bringing joy to my life and for being my greatest cheerleaders.
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ABSTRACT

A COMPARISON OF PERCEIVED PROFESSIONAL DEVELOPMENT NEEDS OF BEGINNING TEACHERS IN WEST VIRGINIA SCHOOLS

Carla Warren

The purpose of this research is to share findings about the perceptions of beginning teachers and mentor teachers throughout West Virginia regarding the professional development topics and skills that are most critical to the success of new teachers. In addition, this study provides data regarding perceptions of goals that are most important in the design of professional development and the most beneficial professional development delivery models for beginning teachers. Responses are used to examine the perceptions of mentors and beginning teachers regarding the professional development needs of beginning teachers. The West Virginia Center for Professional Development provides staff development targeted for beginning teachers. The success of the implementation of these course sessions rests on the appropriate topics being delivered. To ensure beginning teachers are receiving the most appropriate professional development, data must be available to determine the needs of beginning teachers as perceived by teachers and mentors. Data obtained from responses to the online surveys, Warren’s Professional Development Inventory for Teachers and Warren’s Professional Development Inventory for Mentors are compared using descriptive and inferential statistics with written responses being coded, sorted and analyzed to identify emergent themes. The study had a population of 1,173 West Virginia teachers and mentors. Three hundred fifty-one surveys were returned offering a 95% confidence level with a 4.4% margin of error.
CHAPTER ONE: INTRODUCTION

Teaching is a profession that is directly linked to the social and economic well-being of a society and its citizens. Exceptional teaching is vital to a well-educated and productive population (Moir & Gless, 2001; WV Leg. Code, §18A-3A-1). School systems have a genuine desire to assist teachers in improving their practice (The Mirage, 2015). By empowering beginning teachers to succeed in the classroom, school systems are putting them on the path to a career of success by unlocking potential that remains largely untapped (The Mirage, 2015).

The support system in place during the undergraduate and student teaching experiences evaporates from the landscape as the first year teacher is suddenly responsible for organizing, planning, managing, and assessing the learning of students on a daily basis (Moir & Gless, 2001). Students taught by highly effective teachers perform at higher levels than those assigned to low performing teachers (New Teacher Support, 2007). Research indicates that highly qualified teachers are not equitably distributed across school districts, with the largest deficits existing in schools with low socioeconomic status (New Teacher Support, 2007). The quality of pre-service preparation teachers receive is critical to their success as the complex nature of the job can be overwhelming. For the new teacher who enters the classroom without high-quality preparation, the task can seem insurmountable often leading to a quick exit from the profession (Moir & Gless, 2001).

New teachers need continued learning beyond pre-service preparation to develop deep content knowledge and the skills necessary to be highly successful working with students (DeBruyn, 2001). “School improvement equals professional learning,” notes Ben Jenson, president of Learning First (Brenneman, 2016, para. 3). Support providers including mentors, coaches, and administrators can increase teacher retention and excellence in teacher quality by
supporting new teachers with targeted, appropriate professional development opportunities (Making a Case, 2007). In West Virginia, the Center for Professional Development (WVCPD) assists beginning teachers in understanding and meeting the needs of their students. The goal of this study is to learn more about the professional development needs beginning teachers in West Virginia schools have based on the perceptions of new teachers and teacher mentors. This information will inform future professional development offered by the WVCPD.

**Background**

Each year, teachers engage in various professional learning activities that demand enormous amounts of money and other resources (Haslam, 2008). Educator professional development is a multibillion dollar enterprise in the United States (Brenneman, 2016). School systems studied in a research project conducted by The New Teacher Project (TNTP), a nonprofit organization targeting equality in education, were making massive investments in teacher professional development spending an average of $18,000 per teacher, per year (The Mirage, 2015). The WV Department of Education (WVDE) alone distributed $780,600 in the 2013-14 school year to support beginning teacher mentor programs (WV Department of Education, n.d.). Professional development is the central component of efforts to improve education. Research conducted by TNTP (2015) suggests that despite vast amounts of time, money, and energy being devoted to professional development activities, the evidence base for what really helps teachers improve is shallow. Presently, there is little systematic information available on the quality of professional development or its contributions to teaching and learning (Haslam, 2008).

More research is needed in the area of professional development to make a definitive judgment about the quality of the professional development. Research conducted by TNTP
(2015) concludes that effective systems in other countries have clearly defined, disciplined approaches to professional development with follow up in which the impact of the professional development is evaluated and appropriate adjustments are made (Brenneman, 2016). Findings from a study commissioned by the National Center on Education and the Economy indicate that school accountability needs to be a driving factor in the quality of teacher professional development (Brenneman, 2016). The lack of clear direction on the part of school districts about what helps teachers improve reveals a flaw in the current state of professional development. Rather than demonstrating results first and building on that foundation, systems are randomly hoping for the best (The Mirage, 2015). Despite a significant commitment of funds and time for professional development efforts, most teachers do not appear to improve substantially from year to year (The Mirage, 2015). Nearly half of all teachers in the United States are dissatisfied with their professional development opportunities asserting that much of what is made available to them is not useful (Darling-Hammond, Andree, Chung, Richardson, & Orphanos, 2009). Such high levels of dissatisfaction point toward problems in the professional development learning structures currently in place in most school districts (Darling-Hammond et al., 2009).

The task of designing and implementing professional growth opportunities to meet the professional development needs of teachers as a diverse group is challenging. Beginning teachers are faced with specific challenges. The needs of the novice are different from the needs of the more experienced teacher (Mandel, 2006) and therefore, require a distinct professional learning focus. School systems must provide new teachers with the specific pieces of information and skills they most need to move from the survival stage of teaching into productive, effective practice. Otherwise, we will continue to lose potentially promising teachers to other vocations (Mandel, 2006). Beginning teachers need support in the areas of policy and procedure, materials,
curriculum, differentiating instruction, relationships, classroom management, and student motivation (Birkeland & Feiman-Nemser, 2012). Targeted areas of high need include managing instructional time, planning and organizing the classroom environment, and varying instructional strategies to meet student needs (Algozzine, Gretes, & Hathcock, 2007).

While many skills are continually developing in new teachers, high-quality professional development early on proactively addresses problems before they occur. Guiding teachers to keep accurate records and grade fairly, manage behavior and workload, and deepen content knowledge are skills that can be modeled and practiced in well-designed professional development sessions (Melnick & Meister, 2008). While ongoing teacher learning is essential to deepen content knowledge and master teaching skill, only when teachers move beyond the survival phase can they begin to focus on effective instruction and meet students’ academic needs (Swanson Gehrke & McCoy, 2012). Unlike other countries in cities such as Shanghai and Singapore, the United States has not cultivated a vision of what high-quality instruction looks like and then developed consistent teaching-practice frameworks that will lead beginning teachers to success (Brenneman, 2016). Investing in teacher learning acknowledges that exemplary teaching demands deep content knowledge and skill that cannot be learned in isolation. Collaboration in the form of professional learning communities, planning for instruction, and evaluation, is one of our greatest tools as educators and is a crucial component of high-quality professional development for beginning teachers. In a structured collaborative setting, teachers learn from one another and seek out support based on what is relative to their individual needs and the needs of their students (The Mirage, 2015). This collaboration impacts teacher satisfaction and school culture redefining the professional development. The opportunity
for teachers to see, hear, and do various activities in relation to their content areas provides a foundation for deep learning (Hirsch, Mizell, & Avis-Spedding, 2005).

What do we know about what works in professional development and what does not? What makes professional development effective? How can we use information gathered to improve professional learning opportunities for new teachers (Blank & de las Alas, 2008)? Considerable research has been done exploring the professional development needs of teachers. However, beginning teachers encounter specific challenges early in their careers that targeted professional development can address. Teachers’ pre-service education does not sufficiently equip new teachers with the knowledge and skills needed to meet the demands of the full-time classroom once they are on the job (Johnson, Down, LeCornu, Peters, Sullivan, Hunter, & Pearce, n.d.). An incongruity often exists between the new teacher’s idealized vision of teaching and the daily realities of managing a classroom (Down et al., n.d.). Not all teachers have access to quality pre-service preparation followed by high-quality induction (Down et al., n.d.). Induction can be defined as a comprehensive, coherent, and sustained professional development progression orchestrated by the school system to train, support, and retain new teachers (Wong, 2004). Without this process, the result is often new teachers who are left to sink or swim, solving problems and addressing challenges with a trial and error approach (Down et al., n.d.). This method leads to disheartened novice teachers who leave the profession at alarming rates, leaving gaping holes in classrooms all over America. A report published by the Alliance in collaboration with the New Teacher Center (NTC) found that approximately 13% of the nation’s 3.4 million teachers move schools or leave the profession every year (New teacher center, n.d.). Researchers estimate that over 1 million teachers move in and out of schools annually, and between 40-50% quit within five years (Klein, 2014). In West Virginia, 1,015 educators, excluding those who
were retiring, did not return to the classroom after the 2013-14 school year. While additional variables can be identified, this number is alarming considering 2,216 teachers applied for initial licensure to teach in West Virginia in the 2013-14 school year (WV Department of Education, n.d.). Targeted, high-quality professional development support can help retain new teachers, molding and growing them into career educators.

The quality of the teacher is critical to increasing student achievement (Hirsch, et. al., 2005). Despite massive amounts of time and money being invested in professional development initiatives, the research identifying what actually improves teacher practice is sparse (The Mirage, 2015). If professional development efforts are yielding uninspired results, school systems must identify the areas in which teachers need to improve and then provide access to professional development activities that are perceived as useful to help them improve their practice (The Mirage, 2015).

**Problem Statement**

It is vital that teachers participate in high-quality professional development opportunities in order for them to be equipped with the knowledge and skills they need to succeed in the 21st century classroom (Darling-Hammond, 1996). Several previous studies have been conducted on professional development needs of teachers as a group. However, prior research specifically related to the professional development topics most needed by beginning teachers is limited. The literature indicates that teachers have the capacity to grow professionally in their first five years of experience, more so than at any other time in their careers (The Mirage, 2015). Specific characteristics of high-quality professional development evident in the literature include, but are not limited to, longer duration, greater frequency, activity-based, collaborative, and content focused learning that meets the needs of the teacher (Blank & de las Alas, 2008). Specific skills
cited as areas of need by new teachers include classroom management and discipline, parent relationships, assessment and record keeping, time management, procedures and routines, content knowledge, teaching diverse learners, and planning for instruction (Algozzine et. al., 2007; Swanson Gehrke & McCoy, 2012; Melnick & Meister, 2008; Mizell, 2010).

Purpose

The purpose of this study is to determine the professional development needs of beginning teachers. Beginning teachers have specific challenges that require targeted information and skill development. A distinct professional development focus moves beginning teachers from the survival stage to effective practice. By addressing problems proactively rather than relying on random acts of professional development with no coordination of effort, the needs of beginning teachers may be met. This study examines the professional development topics and skills mentors and beginning teachers perceive as important, identifies the important goals that should be considered in the design of professional development, and distinguishes the most highly beneficial modes of delivery for professional development to best meet the professional needs of beginning teachers in West Virginia.

By providing teachers with the skills and tools to succeed in the classroom, more students will be placed on the road to success (The Mirage, 2015). Specifically, this study seeks to inform designers of professional development, such as the West Virginia Center for Professional Development.

Research Questions

This mixed-methods study addresses the following research questions:

1. What are the perceptions of beginning teachers and teacher mentors regarding the professional development topics that beginning teachers need?
2. What are the perceptions of beginning teachers and teacher mentors regarding the skills that are critical to the success of beginning teachers?

3. What are the perceptions of beginning teachers and teacher mentors regarding the goals that are most important to consider in the design of professional development?

4. What are the perceptions of beginning teachers and teacher mentors regarding the professional development delivery models that are most beneficial for beginning teachers?

**Operational Definitions**

1. Beginning Teachers - all full-time P-12 public school educators with 0-5 years of experience who attended the WVCPD Teacher Academy in the 2014-15 cycle and completed *Warren’s Professional Development Inventory for Teachers* (see Appendix A).

2. Mentors - West Virginia teachers who attended Mentor Training provided by the WVCPD between 2013-2015 and completed *Warren’s Professional Development Inventory for Mentors* (see Appendix A).

3. Professional Development Topics - areas of focus identified in the literature, such as using data to plan instruction, differentiating instruction, and deepening content knowledge, as needed by teachers that could be developed through professional development based on a scale from one (1) to five (5): 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree or Disagree, 4 = Agree, and 5 = Strongly Agree and identified by teacher and mentors through written responses on *Warren’s Professional Development Inventory*. 
4. Critical Skills - teaching skills identified in the literature as most important to the classroom success of new teachers, such as managing conflict, implementing smooth transitions, and communicating effectively, that could be developed through professional development based on a scale from one (1) to five (5): 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree or Disagree, 4 = Agree, and 5 = Strongly Agree and identified by teachers and mentors through written responses on Warren’s Professional Development Inventory.

5. Goals - the aim or object considered in the design of professional development, based on the literature, such as standards-based, content-rich, and data-driven, and identified by teachers and mentors checking the top three goals from a list on Warren’s Professional Development Inventory.

6. Delivery Models - various ways that professional development can be delivered to teachers based on the literature, such as online delivery, coaching or mentoring, and workshops or seminars, and identified by teachers and mentors checking the top three choices from a list on Warren’s Professional Development Inventory.

**Significance of Study**

This study may have significance to beginning teachers; those who mentor and coach beginning teachers; district and school level administrators who sustain and develop new teachers through their early years; and those responsible for designing and implementing professional learning opportunities for new teachers including, but not limited to, the West Virginia Center for Professional Development, the West Virginia Department of Education, the Regional Education Service Agencies (RESA), county or district-level professional development coordinators, and higher education faculty and staff responsible for teacher preparation.
programs. Findings from this study should support beginning teachers seeking to advance their classroom skills and deepen their knowledge base in curriculum and instruction. Findings should also assist state, regional, county or district, and school-level professional development coordinators, and school administrators in planning and conducting appropriate, targeted support for new teachers. Those responsible for designing and implementing professional development should benefit from the identification of specific professional development topics and skills new teachers and mentors perceive are needed to help new teachers successfully meet and exceed the demands of the classroom and remain in the education profession.

Information gathered in this study can be used by professional development providers to confirm whether the training they offer is focused on the right topics and the most desirable strategies (Haslam, 2008) and can be utilized by mentors and beginning teachers to determine topics that will be most beneficial to the professional growth of the novice teacher ultimately leading to improved instruction for students (Needs Assessment, n.d.). In addition, finding out the goals that should be considered when constructing professional development and the models of delivery that are of greatest interest will significantly direct the course of the professional development design. Findings from this study may offer a deeper understanding to those responsible for the creation and implementation of professional development offerings for West Virginia beginning teachers so that funding is channeled into programs that are devised based on evidence of what is working to improve teacher knowledge and skills, thereby advancing the quality of teaching (Blank & de las Alas, 2008).

**Delimitations of the Study**

The following delimitations were identified as possible restrictions in this study:
1. Participants will only be given the option to complete the survey, *Warren’s Professional Development Inventory*, located on a hyperlink provided online at [http://www.surveymonkey.com](http://www.surveymonkey.com).

2. The population is limited to teachers who attended WVCPD Mentor Training in 2013-14 or 2014-15, and teachers who attended the WVCPD Teacher Academy in 2014-15.

**Limitations of the Study**

The following limitations were identified as possible restrictions in this study:

1. The study relies on self-reported information through survey; no assurance is given that the participants will give adequate time and thought when completing the survey.

2. The survey represents voluntary participation. Members of the sample may choose not to answer some or all of the questions, thus affecting the results.

3. The content and scope of this study was limited to practicing teachers in West Virginia who responded to the survey. Therefore, the results may not be generalizable to other populations.

4. The survey focuses on teacher perceptions of some components of professional development and therefore is limited to their individual experiences and support.
CHAPTER TWO: LITERATURE REVIEW

Teacher Quality

Teacher quality is the most significant factor in advancing student learning (Hirsch, et. al., 2005). Regardless of initiatives or reforms, the quality of the teacher tips student learning toward success or failure (Darling-Hammond, 2012). Wilson (2011) warns that American school children will become more academically endangered each year they have poor teachers, even as the challenge to create a high-quality work force grows ever more daunting. Citizens must realize the importance of preparing effective teachers to ensure the economic and political survival of our nation (Darling-Hammond, 2005). Students who are taught by effective teachers produce notable gains in student achievement. Students who are taught by effective teachers for several consecutive years experience academic gains throughout their school careers and beyond (Strong, 2006).

Professional Development and the New Teacher

If a caring, qualified teacher for every child is the most important ingredient in education reform, then it should be the top priority for stakeholders, such as administrators, business leaders, higher education faculty, teachers, and others who have a personal interest in education (Darling-Hammond, 1996). In the United States, education reforms have attempted to address the growing concerns about teacher preparation and professional teaching standards (Darling-Hammond, 2005). We cannot improve the quality of the teaching force unless we are producing well-prepared teachers committed to ongoing learning. This can only occur with a strong professional development system that can nurture expertise (Darling-Hammond, 2012). Professional development may be referred to as continuing education, staff development, in-service, or professional learning. Regardless of the terminology, the purpose remains to improve
learning for students and teachers alike (Mizell, 2010). Professional development can be delivered in various formats including conferences, seminars, or workshops, as well as a college course or through collaborative processes, and may take place in informal settings including observations and discussions (Mizell, 2010).

Good teaching does not occur haphazardly, but is the result of planning, practice, reflection, and hard work (Mizell, 2010). To produce highly effective teachers, high-quality professional development that is designed thoughtfully, organized appropriately, and delivered in a meaningful context must be implemented (Hirsch et al., 2005). Much of the professional development currently offered to teachers in the U.S. does not meet these criteria (Birman & Porter, 2000).

In the beginning of their careers, teachers are focused on establishing systems of classroom management and becoming socialized into the school culture (Strong, 2006). Later, perhaps in the second year, teachers are more prepared to direct their attention to instructional issues (Strong, 2006). For teachers to become effective learners, they need a specific skill set to understand theory and have the ability to transfer the learning into their classroom (Joyce & Showers, 2003). Patience and persistence are critical skills new teachers should develop. They must also learn to be resilient, and to persist despite difficulties in implementing new strategies (Joyce & Showers, 2003).

The next generation of teachers needs to be armed with the kinds of knowledge and skills they need for students to succeed. The report of the National Commission on Teaching and America’s Future offers a blueprint for recruiting, preparing, supporting, and rewarding excellent educators in America’s schools (Darling-Hammond, 1996). School systems must recruit the right
candidates, retain those who excel while counseling out poor teacher candidates, and infuse quality professional development into teacher practice (Wilson, 2011).

Professional development historically has received criticism for its inability to significantly impact student learning. Teachers in the United States have virtually no time built into the school day for professional learning or collegial work. Most professional development sessions are held after school hours, on weekends, or during the limited continuing education days built into the school calendar (Darling-Hammond, 2005). Professional development in its current state is deeply flawed. Nearly half of all teachers in the United States are dissatisfied with their professional development opportunities, citing that much of what is made available to them is not useful for improving their practice (Darling-Hammond et al., 2009; The Mirage, 2015). Such a high percentage indicates a deficit in the professional learning structure currently in place in most school districts (Darling-Hammond et al., 2009). The differences evident between teacher satisfaction with professional development and perceived usefulness may be an indicator of possible low expectations for the professional growth of teachers (The Mirage, 2015).

Dissatisfaction often stems from the teacher’s perception that the professional development is not customized to their needs (The Mirage, 2015). Professional development is often viewed by systems as a supplement to the teacher’s work day resulting in learning that is frequently broken up, narrow in content, and often meaningless (Darling-Hammond et al., 2009). When professional development is not designed to address educators’ needs in terms of motivation, interests, prior knowledge, and skills, it will not be well-received (Mizell, 2010). Since differentiation is a basic characteristic of good teaching, perhaps the same characteristic should be evident in professional development (The Mirage, 2015).
States spend millions of dollars on professional development courses that are disconnected from the realities of the classroom and do little to help teachers conquer the challenges they face day to day (Darling-Hammond, et. al., 2009; Hirsch et al., 2005). In many parts of the country, professional development still consists of one-shot workshops (Darling-Hammond, 2005). For teachers to acquire a balanced combination of strong content knowledge and empathetic, caring attributes, professional development must be designed to provide effective problem-based learning that is built into teachers’ work with their colleagues (Darling-Hammond, 2005). Teacher training does not end upon exiting the university setting (Steyn, 2005). High-quality professional development will continue to focus the teacher’s learning by continuously updating professional knowledge, skills, and attitudes so that all students can learn and will perform at higher levels (Steyn, 2005).

Professional development topics disconnected from practice do not provide teachers the time and opportunities to engage in cumulative study of their content area nor do they provide the opportunity for teachers to try out new activities and ideas in the classroom and reflect on the outcomes (Darling-Hammond et al., 2009). When there is a disconnect between what teachers are asked to do in a professional development session and what they are asked to do in their classrooms, the activities will have minimal impact on teacher growth and student learning (Darling-Hammond et al., 2009).

**Professional Development Topics for New Teachers**

New teachers are much like Tom Hank’s character in *Castaway*, marooned on a deserted island facing the challenges of survival (Darling-Hammond, 2012). Retention rates are higher for teachers who are more fully prepared for the challenges they will face. Those who lack key elements of preparation, such as classroom management procedures and routines, often leave the
classroom quickly (Darling-Hammond, 2012). The needs of the beginner are different from the needs of the more experienced teacher (Mandel, 2006). Schools must provide new teachers with the pieces of information and skills they most need to move from the survival stage of teaching into productive, effective teaching. Otherwise, we will continue to lose them to other vocations (Mandel, 2006). Strong (2006) states that the support teachers receive in their first two years of experience is as critical to their effectiveness as their pre-service training, state certification, and subject matter skills.

Teachers need high-quality preparation before they enter their first classroom. Teacher preparation programs can lay a strong foundation for professional development and career-long learning in which teachers will continue to mature in their practice (Wilson, 2011). Better assistance during the beginning years of a teacher’s career and high-quality professional development throughout the educator’s career develops continued growth (Melnick & Meister, 2008). Beginning teachers are faced with specific challenges. Armed with a shallow repertoire of instructional strategies, the novice teacher is often given out of field teaching assignments and a disproportionate number of challenging students. Tight budgets result in incomplete curricula, overworked colleagues, and administrators who only have the resources to provide limited support. The excessive focus the United States has put on testing and standards has detracted from the focus on guiding and supporting new teachers in their first year (Mandel, 2006). This sink or swim mentality can be overcome by delivering specific professional development topics new teachers need to be successful and nurturing their growth (Birkeland & Feiman-Nemser, 2012).

What pre-service teachers learn in the university setting and the controlled environment of the classroom is far different from the realities of their first teaching assignments (Melnick &
Meister, 2008). Beginning teachers have pre-conceived ideas about the realities of having their own classroom. They often do not realize the investment of time and energy necessary to do the job. The realities of the classrooms almost never meet their expectations (Melnick & Meister, 2008). The hiring and induction process is often loose and disorganized, leaving the beginning teacher feeling isolated, receiving minimal feedback and limited assistance (Darling-Hammond, 1996).

Teachers in their first years of experience need to acquire skills specific to their needs. Beginning teachers need support in the areas of policy and procedure, materials, curriculum, differentiating instruction, relationships, classroom management, and student motivation (Birkeland & Feiman-Nemser, 2012). Novice teachers often feel isolated from their peers, overwhelmed by the large amounts of paperwork, lesson planning, and record keeping (Swanson Gehrke & McCoy, 2012). Targeted areas of high need include managing instructional time, planning and organizing the classroom environment, and varying instructional strategies to meet student needs (Algozzine et al., 2007). Over a period of 15 years working as a mentor and mentor trainer in Los Angeles schools, Mandel (2006) asked 50 mentors about what kinds of help new teachers requested most frequently and what skills were most deficient. He extended his research by asking these same questions of teachers in their second, third, and fourth years of experience. No teachers responded that they needed help aligning curriculum or analyzing test scores (Mandel, 2006). Rather, their concerns centered around setting up the physical classroom environment, covering the required curriculum without losing student interest or falling behind, grading, staying healthy both mentally and physically, and building relationships with parents (Mandel, 2006). Novice teachers particularly reported feeling high levels of stress and
uncertainty when working with the parents of their students (Birkeland & Feiman-Nemser, 2012).

In a study conducted by Melnick and Meister (2008), new teachers reported time management, discipline, parent involvement, and preparation as their top concerns. Other concerns noted included classroom management, implementing effective instructional strategies, planning for diverse learners, and using technology for instruction in the classroom (Melnick & Meister, 2008). Novice teachers need exposure and practice communicating effectively as well as interpersonal skills that enable them to work with students, peers, supervisors, and parents (Melnick & Meister, 2008). Induction support should include strategies that will nurture and grow teacher skills in these areas.

New teachers often sense that what they are doing is not working but do not yet have the skills to fix it. Mandel (2006) reports that common problems such as calling on the same students repeatedly, conducting shallow discussions, and inadequately covering the curriculum are examples of skills that can be addressed through rich professional development (Mandel, 2006). Well-designed professional learning models integrate needed skills such as time management, lesson planning, assisting new teachers to combine several teaching goals into one lesson or assignment, and using homework for review and introduction of new concepts (Mandel, 2006).

While many skills are ongoing and continually developing in new teachers, high-quality professional development early on proactively addresses problems before they occur. For example, modeling how to deal with parents before conference time develops confidence in the new teacher (Mandel, 2006). One teacher reports, “I tried to evaluate them. I had no idea what to expect from my students and therefore no idea where to praise and to suggest improvements” (Bieler, 2012, p. 47).
Specific skills cited as areas of need by new teachers occur multiple times within the literature (Algozzine et al., 2007; Swanson Gehrke & McCoy, 2012; Melnick & Meister, 2008; Mizell, 2010). These include but are not limited to:

- Classroom management and discipline
- Parent relationships
- Assessment, grading, and record keeping
- Time management
- Procedures and routines
- Content knowledge
- Physical classroom arrangement
- Teaching diverse learners
- Instructional strategies
- Motivating students
- Planning for instruction
- Administrative and collegial relationships

The main goal of the new teacher is to survive (Mandel, 2006). The beginning teachers’ lack of knowledge prevents them from focusing on student learning because they are preoccupied with survival (Melnick & Meister, 2008). Induction support addresses the need for new teachers to gain control of their new role. Dealing with the daily stress of teaching is important to avoid early burnout that results in many novice educators leaving the profession (Mandel, 2006). By developing a shared understanding of what good, effective teaching looks like, mentors and other induction supports can enable new teachers to deal with the time constraints and the workload (Melnick & Meister, 2008). While ongoing teacher learning is
essential to deepen content knowledge and master teaching skills, only when teachers move beyond survival can they begin to focus on effective instruction and meeting students’ academic needs (Swanson Gehrke & McCoy, 2012). Induction develops the skills to effectively plan and prepare, design an appropriate classroom environment, exhibit professional skills, and instruct students efficiently (Danielson, 2007).

Teachers report that professional development topics available to them are often of low quality and do not fit their needs, delivering isolated learning unrelated to school, county, or state initiatives and goals (Darling-Hammond et al., 2009). Typical in-service trainings are passive events in which teachers may be exposed to new ideas but will not likely change their practice (Hirsch et al., 2005). If the professional development cannot easily be integrated into teacher practice and the new practices are not supported by the school organization, the professional development will have little impact on student learning (Darling-Hammond et al., 2009).

The primary goal within the teaching profession is that every member will have a shared core of knowledge and skills that will render them effective in the classroom (Darling-Hammond, 2012). Those who design and provide professional development aim to produce teachers who will deliver quality instruction and teach effectively. This high-quality preparation encompasses pre-service preparation, induction, and mentoring (Algozzine, et al., 2007).

**The Challenge to Retain Teachers**

The complex nature of learning to teach is so challenging that some researchers estimate that more than one-third of teachers exit the profession in their first three years, and this number rises to a staggering 50% by year five (Bieler, 2012; Mizell, 2010). More specifically, the U.S. Department of Education reported that in September of 2014, 84% of teachers remained at the same school after the 2011-12 school year. Of the remaining 16%, 8% of teachers moved to a
different school while the other 8% of teachers left the profession altogether. The percentages for teachers with 1-3 years of experience are slightly more promising with an estimated 80% of teachers staying in their base-year schools, 13% moving to other schools, and 7% leaving the teaching profession (Goldring, Taie, & Riddles, 2014).

Although much research has documented the fact that new teachers leave the profession, not much has tried to identify the reasons why. Little research has been conducted on the attrition rates of beginning teachers. The Beginning Teacher Longitudinal Study (BTLS) sponsored by the U.S. Department of Education was initiated with teachers who began their teaching careers in 2007-08, to fill this gap in the research (Kaiser & Cross, 2011). The BTLS examined the characteristics and attitudes of teachers who stayed in the profession and those who chose to leave. Data were collected across three school years: 2007-08, 2008-09, and 2009-10 (Kaiser & Cross, 2011). Of beginning teachers in public school environments, about 74% remained in the same school in 2009-10 as the prior school year. About 10% of new teachers moved to a different school but stayed in the teaching profession. About 3% returned to teaching after a year of not teaching and approximately 12% of beginning teachers did not return to the classroom in year two (Kaiser & Cross, 2011).

Multiple variables have been offered by teachers to explain why they did not return to the classroom after their first year. Some were not offered renewal contracts, or accepted positions outside of education, while others moved or entered the military (Kaiser & Cross, 2011). To retain new teachers in the profession, the National Commission on Teaching and America’s Future (No Dream Denied, 2003) recommended specific strategies. Schools must create inviting learning environments by establishing a school vision and goals while fostering relationships between staff, students, and parents (Schaps, 2005). Schaps (2005) suggests that positive
learning environments are created when parents are involved, procedures and routines are in place, and all parties involved have high expectations for students. Systems must foster and support quality preparation by investing in new teachers through high-quality mentoring, time for common planning and collaboration, ongoing professional development, and standards-based evaluations (Teacher Induction, 2006). New teachers need to feel that education is a professionally gratifying career (Algozzine et al., 2007; No Dream Denied 2003). When administrators and systems foster supportive school cultures and a spirit of collaboration and collegiality, beginning teachers move through the critical survival stage toward effective practice (Ashby & Hobson, 2012).

Teaching is a practice-based profession that requires experience to effectively master (Wilson, 2011). The consumer does not want a doctor or an accountant who has not had sufficient training, yet is often apathetic about the amount of preparation a teacher needs, who will provide the training, and where it should take place (Wilson, 2011). Teachers who do not experience quality professional development do not improve their skills and have little impact on the learning of their students (Mizell, 2010).

**What is High-Quality Professional Development?**

Learning Forward maintains that professional development should be aligned with state and local standards as well as academic achievement goals encompassing a comprehensive, sustained, and intensive approach to improving teacher effectiveness and ultimately raising student achievement (NSDC, n.d.). What does high-quality professional development look like and what are its components? How do these elements support new teachers? It takes time and intentionality to design professional development that will equip teachers to improve instruction (Moss, Noden, & Vacca, 1994) and develop the knowledge and skills that can be transferred into
classroom practice impacting student achievement (Joyce & Showers, 2003). Common attributes can be identified in high-quality professional development such as strong teacher induction and consistent superior professional development often led by practitioners themselves (Brenneman, 2016). Well-designed professional learning requires a thoughtfully conceived plan followed by careful implementation and evaluation or feedback. Meaningful improvement often is a highly individualized progression that varies from teacher to teacher (The Mirage, 2015). The professional development will not be effective unless it is meaningful and it improves the teacher’s practice (Darling-Hammond et al., 2009; Mizell, 2010).

**Professional Development Design**

Fundamental elements of high-quality professional development are identified by educational stakeholders: the U.S. Department of Education (USDE), Learning Forward, the West Virginia Department of Education (WVDE), the National Education Association (NEA), the American Federation of Teachers (AFT), and the West Virginia Center for Professional Development (WVCPD). These organizations concur that high-quality staff development should be a priority for West Virginia teachers. High-quality professional development comes in many forms. Professional learning should be a central component to the teacher’s practice. It should not be an add-on lumped onto the beginning or ending of the school day or year (Brenneman, 2016). While traditional approaches such as workshops have been criticized as less effective than reform approaches, they can be beneficial when designed appropriately. For example, innovative workshops should be designed to immerse teachers in valuable activities that are content specific, create networking opportunities, and are appropriate in duration. Unfortunately, many traditional professional development designs do not provide these components nor do they allow
adequate time for teachers to increase knowledge that results in deep learning and impacts classroom practice (Birman & Porter, 2000).

The first step in designing professional development is analyzing the school or district data to determine which problems educators are having the most difficulty addressing and then investigate what knowledge is needed for them to be successful (Mizell, 2010). Outcomes should be identified early and must be closely related to the design of the professional development (Joyce & Showers, 2003). Designers must determine what the training is trying to achieve and then select instructional strategies that will most likely achieve those goals (Joyce & Showers, 2003). By using a backward design approach, developers can plan based on what the professional development needs to accomplish in terms of the learning and the learner. For any chosen model to function efficiently, opportunities for teacher collaboration are vital to giving teachers occasions to exercise judgments about their professional learning (Brenneman, 2016).

Support from Administrators

All stakeholders should be consulted to determine the professional development needs of beginning teachers. One significant stakeholder group is administrators who are charged with the responsibility of building competence and capacity in their new teachers. Insufficient support from school leadership is cited as one of the three most frequent causes for a new teacher to leave the profession (Watkins, 2011). Principals who are aware of the needs of new teachers, and take proactive steps to support them, demonstrate a commitment to the development and retention of new teachers (Watkins, 2011). Watkins (2011) places the responsibility of setting the stage for the new teacher’s success squarely on the shoulders of the administrator. Beginning teachers may not know what they need in the way of growth and development. The instructional leader of the school can provide insight and guidance to the new teacher. Time and
encouragement are key factors that allow new teachers to make connections with their peers (Blasé, 1998). By making resources and time available, the administrator is fostering an environment in which the new teacher can flourish.

The instructional leader in the school can ensure that beginning teachers get the most out of professional growth opportunities by seeking out staff development that is research-based rather than the latest trend in education (Nobori, 2011). One such staff development includes providing a mentor for the new teacher. Few professions require the novice to assume identical responsibilities as the experienced worker (Danielson, 2007). Learning to teach is a career-long developmental cycle that includes planning, teaching, and reflecting (WVCPD, 2012b, ¶1). The mentor has the capacity to share years of acquired knowledge and wisdom with the new teacher, demonstrating and modeling effective techniques of instruction (Danielson, 2007). The learning curve of the beginning teacher is enhanced by forming strong connections with administrators, colleagues, mentors, coaches, and other professionals who make valuable contributions to the new teacher’s professional growth (Moir, 2010).

Collaboration is a fundamental component of high-quality professional development. Strong working relationships are built through collaboration, which has historically been absent in most U.S. schools (Darling-Hammond et al., 2009). Effective principals acknowledge the need for beginning teachers to collaborate with their peers, strengthening the new teacher’s practice and fostering strong relationships amongst the whole staff (Meador, n.d.). New teachers are exposed to best practices and success stories, gaining beneficial insight and advice from more experienced colleagues (Meador, n.d.). Meador (n.d.) asserts that administrators are in a position to place beginning teachers in professional development settings that directly relate to their practice rather than requiring they attend professional development they will not use.
With the many demands that new teachers face it is particularly important for the professional development to be convenient and consistent in nature (Nobori, 2011). When principals know their teachers deeply, they have the insight to direct them to staff development opportunities that reinforce their strengths and improve their areas of weakness (Nobori, 2011). By building relationships with teachers, the administrator can choose learning opportunities that will increase new teacher satisfaction, reduce feelings of isolation, and address their needs for identity, competency, and efficacy (Jorissen, 2002).

**Components of Effective Professional Development**

Mayer and Lloyd (2011) identify some specific features of effective professional development. Multiple data sources must be consulted to create learning that is intensive and connected to practice (Darling-Hammond et al., 2009). The learning is collaborative and teacher learning is fundamentally anchored in the content of the teacher’s work. There is an emphasis on developing subject matter and content knowledge, providing opportunities for active learning sustained over time and allowing teachers to put the learning into practice. Follow-up and support are essential to the successful implementation of the professional learning (Mayer & Lloyd, 2011). The learner should be immersed in inquiry and problem solving exercises, developing awareness while building knowledge (Mayer & Lloyd, 2011). Mayer and Lloyd (2011) emphasize the importance of applying the learning in the context of the teaching, followed by constant reflection to refine practice. Successful professional development programs are designed to directly relate to teaching and learning in the classroom.

Good professional development enables teachers to become more effective learners (Joyce & Showers, 2003). Steyn (2005) cites specific attributes of professional development that influence its effective implementation. Experienced developers recognize the importance of the
details in meeting the basic needs of their participants (Guskey, 2002). The design of the learning should address the learning styles of the participants and take into consideration factors such as the venue, training times, comfort level, and refreshments. Each of these can affect the success of the professional learning (Steyn, 2005). The professional development design should strive to deepen participants’ knowledge, clarify the concepts behind a skill or strategy, demonstrate or model a skill, and provide for practice of that skill with peer review and feedback (Joyce & Showers, 2003). Well-designed training seeks to add to the educator’s knowledge base and professional practice. The commitment to ongoing learning on the part of the teacher is critical for continued learning to occur (Burn, Mutton, & Hagger, 2010).

It is essential for designers of staff development to recognize that American schools “do not operate like hospital emergency rooms where experienced personnel routinely watch novices work, spot their mistakes, give advice, and model new techniques” (Algozzine, et al., 2007, p. 141). More often teachers receive on-the-job training without the benefit of knowledge, feedback, or support from others (Algozzine, et al., 2007). Colleges and universities do not have the time or the resources to provide the extensive range of learning experiences newly graduated teachers need to be effective educators on day one (Mizell, 2010). All teachers should participate in ongoing learning to expand their knowledge and skills to implement best educational practice (Mizell, 2010). Experience is the main mode of learning for the beginning teacher (Mizell, 2010). In the design of high-quality professional development, what do new teachers need to develop into successful educators who have a deep understanding of their subject matter (Hirsch et al., 2005)? Unlike doctors, lawyers, and architects who participate in internships and guided induction into their professions, teachers do not all receive this same kind of purposeful intensive training and preparation (Darling-Hammond, 1996). Darling-Hammond reports that roughly 25%
of newly hired American teachers lack the qualifications for their jobs (Darling-Hammond, 1996). Keeping teachers in the profession long enough to develop their craft is a challenge (Wilson, 2011).

**Formats of Professional Development**

In studying the literature, three key structural elements of high-quality professional development emerge. The form, duration, and participation of the training are critical to its success (Birman & Porter, 2000). How is the training structured? Is the mode of delivery a study group, a network, or a mentor relationship? How many hours are devoted to the training and over what period of time? Who participates? Does the same group of teachers attend each time? Are they from the same school, county, or district? All of these questions alongside the content focus, level of engagement, and cohesiveness of the training contribute to a high-quality professional development experience with lasting impact on student achievement (Birman & Porter, 2000).

Professional learning activities should be designed to energize educators connecting student learning through increased teacher learning and improved classroom practice (Birman & Porter, 2000; Mizell, 2010). When clear goals are set and real challenges are addressed, teachers will respond with motivation, interest, knowledge, and skill, appreciating the value of well-organized professional development (Mizell, 2010). Effective professional learning should be facilitated by well-prepared, master teachers and teacher leaders (NSDC, n.d.). Lewis Carroll’s *Alice’s Adventures in Wonderland* (1971) is often credited with the saying, “If you don’t know where you are going any road will take you there.” The same can be said when considering the development of professional learning. High-quality professional learning is directly connected to consistent standards for teaching that support a vision of educational goals and support instruction (Darling-Hammond, 2012). Standards must first be assessed and aligned with district,
state, and federal goals and the teacher’s content and the pedagogical needs of the teacher should be aligned with those standards (Hirsch et al., 2005).

Teachers need a depth of knowledge about their students and how they learn content coupled with the teacher’s own deep knowledge of the content area (Birman & Porter, 2000). Well-designed professional development aligns the learning to support and improve teacher quality (Darling-Hammond, 2012). One necessary component of the learning is the focus on how to address the differences in students and the problems they may be encountering (Mayer & Lloyd, 2011). The learning should be continuous with built in follow-up and supports for further learning (Mayer & Lloyd, 2011). This support can be provided within the learning environment or from external sources, which can offer new perspectives and provide additional resources (Mayer & Lloyd, 2011).

Elements of high-quality professional development are repeated throughout the literature. A constant is the sustained increase in content knowledge (Hirsch et al., 2005). Intensive professional development that instructs the novice to use data to evaluate and critique their teaching and their students’ learning develops the teacher’s skill to reflect on practice in order to improve instruction (Blasé, 1998). For the professional learning to have noticeable impact on instruction and student learning, a significant amount of time over an expanded duration allows teachers to process, practice, and reflect on their new knowledge and skills (Darling-Hammond et al., 2009). Currently, much professional development does not meet the threshold needed to produce strong effects on practice or student learning (Darling-Hammond et al., 2009).

Investing in teacher learning acknowledges that exemplary teaching demands deep content knowledge and skill that cannot be learned in isolation. Colleagues and mentors need to model effective practice to help new teachers build background knowledge (Birkeland &
Feiman-Nemser, 2012). Collaboration is one of our greatest tools as teachers and is a crucial component of high-quality professional development for beginning teachers. The opportunity for teachers to see, hear, and do various activities in relation to their content area provides a foundation for deep learning (Hirsch et al., 2005). Through this collaboration, teachers create networks and relationships central to promote solid, caring, school communities (Bieler, 2012). The new teacher especially benefits from the opportunity to share instructional resources and ideas (Bieler, 2012). Isolation can be addressed through collaborative activities in the professional development setting. While teaching often feels like a solitary battle being fought behind closed doors, collaboration opens those doors for new teachers, allowing knowledge to be shared (Bieler, 2012).

Partnerships provide opportunities for teachers to engage in activities related to their teaching practice while interacting with other teachers (Swanson Gehrke & McCoy, 2012). Collaboration encourages teachers to implement the training using adult learning strategies. Even if the learning is well-designed, teachers will not invest themselves in the learning if they find the content to be generic and lacking meaning within their context (Steyn, 2005). Developers must define the goals of the training, the learning styles of the participants, and the experiences and backgrounds teachers bring to the table. Just like students, teachers are individuals with specific learning needs (Steyn, 2005). In adult learning settings, the professional development must acknowledge the diverse learning that will occur in specific contexts depending on the personal beliefs, opinions, subjects taught, and values participants bring with them (Steyn, 2005). Adult learning strategies should be utilized to actively involve teachers in the professional development (Hirsch et al., 2005; Steyn, 2005). Active learning and problem-based learning support the daily challenges teachers face in their work (Hirsch et al., 2005). Adult learning
theory dictates that the content should deepen knowledge and skills, employing strategies such as collaboration, study groups, professional networking, action research, peer observation, and coaching (Hirsch et al., 2005; Steyn, 2005). Effective professional development will also include a follow-up component in which the adult learners have the opportunity to practice learned skills until they become automatic (Hirsch et al., 2005). Hirsch et al. (2005) state that high-quality professional development with adult learners mirrors the methods that teachers will use with their students. They are more likely to implement strategies that have been modeled for them in the professional development setting. This includes hands-on practice that builds knowledge and skills to teach concepts to students (Darling-Hammond et al., 2009).

Adult learners appreciate opportunities to plan in a collegial setting structured into their work day (Darling-Hammond et al., 2009). In this setting, participants may feel comfortable voicing their opinions, feel respected for what they know and the skills they possess, and feel less threatened to explore new strategies and techniques (Steyn, 2005). A key purpose of professional development is to improve student achievement (Steyn, 2005). Learning and achievement increase when educators engage in professional development that focuses on the skills educators need (Mizell, 2010). Successful learning communities emerge when teachers are grounded in learning that results in effective implementation focused on developing skills and knowledge and nurturing positive attitudes in educators (Steyn, 2005).

In the United States, there seems to be a lot of professional development thrown at teachers without ever checking to see if it is beneficial to their practice (Brenneman, 2016). A crucial design piece of professional development is the evaluation. Have the outcomes been met? A well-designed evaluation tool defines how the impact from the professional learning will be
determined (Hirsch et al., 2005). Guskey (2002) believes that participant reaction should be valued and include questions such as:

1. Did they like the professional development session?
2. Was their time well-spent?
3. Will it be useful?
4. Were the presenters knowledgeable?
5. Was there food and beverage provided?
6. Was the temperature and room set-up comfortable?

However, it is important to recognize that participant reaction alone is not sufficient to gauge the quality of the learning unsupported by research (Hirsch et al., 2005). Measurable outcomes must be assessed, and adjustments must be made to improve outcomes (Brenneman, 2016). Joyce and Showers (2003) suggest consideration of the following questions: Is there an awareness of educational theory and practices as well as new curricula or academic content throughout the learning? Does a shift in the attitudes of teachers toward their role, their students, or their curriculum occur as a result of this learning? And, most importantly, Joyce and Showers (2003) along with Guskey (2002) suggest that we ask: Did the teachers develop skills that can be transferred into the classroom and impact student learning?

Professional Development in America

Many new teachers struggle with knowing what to teach, what resources they have to teach it, how quickly to teach it, how to engage different kinds of learners, and how to prepare for high stakes tests (Jones 2012). High-quality professional development can assist beginning teachers in acquiring these competencies. In comparing the support other countries provide their new teachers with the United States, the U.S. is greatly lacking. In Japan, new teachers receive
20 days of in-service during their first year and 60 days of professional development in the targeted areas of classroom management, instructional strategies, and counseling (Darling-Hammond, 2005). New educators have a reduced teaching load and attend in-school training with mentor teachers. They receive release time to observe master teachers in action (Darling-Hammond, 2005). In Shanghai schools professional development is embedded into the instruction, providing opportunities for teachers to journal and reflect on their practice and gain guidance from colleagues and mentors (Brenneman, 2016).

With changes in legislation that govern alternative certification requirements, the number of teachers entering the profession unprepared to meet the challenges they will face is growing (Darling-Hammond, 1996). Other industrialized nations fund their schools equally and ensure their teachers are qualified by underwriting teacher preparation programs and salaries (Darling-Hammond, 1996). In contrast, U.S. teachers must go into substantial debt to train for a field with minimal financial return (Darling-Hammond, 1996). To meet the needs of beginning teachers, more investment is needed to prepare and develop programs that will enable new teachers to accomplish gains in student achievement (Darling-Hammond, 2012). The top priorities of designers should be to assist teachers to learn deeply about their content, develop effective classroom management skills, use technology tools to enhance student learning, and develop the skills to meet the learning needs of diverse groups of students (Darling-Hammond et al., 2009). To be effective in the classroom, teachers must understand learning and pedagogy and develop the skill to respond to the needs of their students and the demands of their disciplines (Darling-Hammond et al., 2009). Teachers cannot teach what they do not know (Hirsch et al., 2005). Teacher growth goes well beyond the first year (Conway, 2006). Algozzine, et al. (2007) suggest beginning teachers engage in a three-year induction period with formal orientation, mentor
support, observations, and evaluation. Several studies over the past three decades indicate that novice teachers do not have the pedagogical knowledge to understand management, behavior, and academic tasks (Melnick & Meister, 2008). Without the understanding of the underlying theory, beginning teachers do not know why they are teaching content nor can they tell their students why they are learning it (Joyce & Showers, 2003). American schools treat new teachers as experts from the first day they enter the classroom (Birkeland & Feiman-Nemser, 2012). This classification limits the new teacher’s access to colleagues and professional learning (Birkeland & Feiman-Nemser, 2012).

The realities of the school environment present multiple obstacles that must be navigated for professional development to be meaningful to teachers. American teachers often receive little or no funding or support to participate in professional development opportunities, including tuition and registration reimbursements, release time, scheduled time for professional development in the school year contract, or stipends (Darling-Hammond et al., 2009). The poor design of professional learning programs fails to assess the needs of students in relation to state goals, rarely utilizing data effectively to determine the professional development needs of teachers. Professional development often lacks focus on content, providing no follow-up or opportunity for teachers to practice the skills they have acquired and ignoring the benefit of ongoing support and feedback critical to reinforce their learning (Hirsch et al., 2005).

The duration and intensity of the professional development delivered to teachers in the United States is not near the level that research suggests is vital to producing noticeable results on instruction and student learning (Darling-Hammond et al., 2009). More than 90% of teachers reported participating in professional development that largely consists of short-term workshops or occasional conferences (Darling-Hammond et al., 2009). The practice of beginning teachers
particularly suffers when they do not have access to professional development that is job-
embedded and collegial (Darling-Hammond et al., 2009). In addition, the U.S. does not currently
provide universal access to professional learning in the form of mentoring, coaching, and other
supports specific to beginning teachers (Darling-Hammond et al., 2009). The time and focus
central to sustained professional development, including follow-up and reinforcement, are not in
place in many school districts. Sessions of 14 hours or less have no effect on student
achievement (Darling-Hammond et al., 2009). Very few teachers have the flexibility and support
to engage in professional development targeting any one single aspect of their teaching for
longer than two days at a time (Darling-Hammond et al., 2009). Current learning theory suggests
that one-time, one-size-fits-all trainings do not honor the adult learner (Hirsch et al., 2005). Poor-
quality professional development is often delivered without participant engagement and
problem-based collegial learning vital for teacher growth and maturation that supports the
challenges they face on a daily basis (Hirsch et al., 2005). Poorly conceived and inefficiently
implemented professional development leads to resentment and complaints from teachers under
its umbrella (Mizell, 2010).

The teaching profession has not yet established a sound tradition of professional
collaboration (Darling-Hammond et al., 2009). High-intensity, job-embedded collaborative
learning is not commonly found in professional development sessions across America with
teachers reporting even less opportunity to collaborate in designing curriculum and sharing
practices with colleagues. While much professional development includes academic subject
matter, it is not addressed in depth (Darling-Hammond et al., 2009). Professional development
can be identified as poor in quality when it fails to be sustained and intensive, focusing on
specific academic content (Darling-Hammond et al., 2009). To approach deep understanding of
new content, the traditional delivery for professional development is ineffective (Hirsch et al., 2005), providing teachers with limited opportunities to extend their learning and engage in collaborative communities (Darling-Hammond et al., 2009). Rarely do teachers have the chance to conduct research on educational topics, learn from one another, and work on issues of instruction, guiding curriculum, assessment, and professional learning decisions (Darling-Hammond et al., 2009).

Access to and quality of support for professional development vary widely from school district to school district and school to school (Darling-Hammond et al., 2009). In comparing teachers in the United States to teachers in other developed countries, U.S. teachers do not have access to the kinds of robust professional learning that builds teacher capacity that will significantly impact student achievement (Hirsch et al., 2005). The essential components of high-quality staff development including, but not limited to, adequate time and multiple opportunities that foster intensive, sustained professional development with follow-up and reinforcement are not in place in many districts across America (Darling-Hammond et al., 2009). How can the West Virginia Center for Professional Development (WVCPD) build capacity to offer high-quality professional development that is effective in growing teacher knowledge, improving instruction, and supporting student learning (Darling-Hammond et al., 2009)?

**The West Virginia Center for Professional Development**

The West Virginia Center for Professional Development (WVCPD) was established in 1991 by the West Virginia Legislature as an agency under the Governor’s Office; it is currently under Education and the Arts. The mission of the WVCPD is to advance the quality of teaching and management in the schools of West Virginia through the implementation of statewide training, professional staff development, and technical assistance programs and practices to
assure the highest quality in teaching and school management (The WV Center for Professional Development, n.d.). The code governing WVCPD, §18A-3A-1, highlights several areas of legislation that include the WVCPD agency and its programs.

**New Teacher Induction**

Each county school system in West Virginia is required by the West Virginia Department of Education (WVDE) to establish a comprehensive system of support for teacher induction and professional growth (System of support, 2013). This plan identifies action steps that systems will take to assist beginning teachers in developing instructional and management strategies, procedural and policy expertise, and other professional practices they need to be successful in the classroom to perform at the accomplished level (WV Comprehensive system for teacher induction, 2013). County school systems use the data gathered from the Educator Performance Evaluation System as a benchmark for providing professional development specifically targeted in identified areas of need (WV Educator Performance, 2014). WVCPD Teacher Academy (WV Comprehensive system for teacher induction, 2013) targets beginning teachers offering comprehensive, sustained support. Multiple tracks are designed to help new educators develop essential skills needed to create well-managed and high performing classrooms through topics including classroom management, differentiated instruction, understanding poverty, interpersonal relationships, mental models, and instructional strategies.

At the conclusion of each professional development session, WVCPD participants’ perceptions of the professional development are surveyed (Heaton & Bias, 2012) in areas such as the organization of the academy, clarity of the objectives, pacing of the professional development, and the degree to which the learning provided current and relevant information. Participants are asked to respond to survey items using a rating scale from one (1) to four (4):
1=Strongly Disagree, 2=Disagree, 3=Agree, and 4=Strongly Agree. Ninety-three percent of the teachers (over 1,000) in the 2011-12 Teacher Academy cycle perceived that participating in the WVCPD Teacher Academy increased their skills and knowledge. Participants also shared specific strategies for taking what they learned back to their classrooms and schools to share with colleagues, Professional Learning Community members, and developmental teams. Teachers named multiple skills they gained from participating in the WVCPD professional development (see Table 1):

Table 1. Strategies Learned for Improving Instruction and Classroom Management

<table>
<thead>
<tr>
<th>Strategies to improve classroom instruction</th>
<th>Strategies to improve behavior management</th>
<th>Strategies to improve professional development delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>New activities</td>
<td>Alternatives to consequences</td>
<td>Assessment strategies</td>
</tr>
<tr>
<td>Collaborations</td>
<td>Creative ideas</td>
<td>Checking for understanding</td>
</tr>
<tr>
<td>Differentiated instruction</td>
<td>Discipline</td>
<td>Goal setting</td>
</tr>
<tr>
<td>Setting high expectations</td>
<td>Managing transitions</td>
<td>Modeling</td>
</tr>
<tr>
<td>Monitoring progress</td>
<td>Positive reinforcement</td>
<td>Procedures and routines</td>
</tr>
<tr>
<td>Rules</td>
<td>Tips</td>
<td>Examples</td>
</tr>
<tr>
<td>Reflection</td>
<td>Improved motivation</td>
<td>Improved confidence</td>
</tr>
<tr>
<td>Handouts</td>
<td>Resources</td>
<td>Websites</td>
</tr>
<tr>
<td>Parent involvement</td>
<td>Planning and organization</td>
<td>Communication</td>
</tr>
<tr>
<td>Technology integration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the 2013-14 Teacher Academy cycle (Heaton & Bias, 2014) the following components of high-quality professional development were rated positively by more than 90% of participants: Program Organization (97-100%), Clarity of Objectives (98-100%), and Session Pacing (91-100%). When asked what they needed to implement the learning gained from the WVCPD Teacher Academy (Heaton & Bias, 2014), new teacher participants expressed their needs as:

1. Time-to plan, organize, and practice skills
2. Development of consistent classroom expectations
3. Time to collaborate with colleagues and administration
4. Support from administrators
5. Additional training in behavior management
6. Additional equipment and/or materials

These expressed needs from teachers provided WVCPD with recommendations for further study. Data presented in the Final Evaluation Reports for the Teacher Academy (Heaton & Bias, 2012, 2014) document the quality of professional development provided by the WVCPD.

**Mentor Training**

Building leadership capacity in the school culture strengthens the bonds among all stakeholders with a shared focus on the continuous professional growth of both the teacher and the student (WV Comprehensive system for teacher induction, 2013). The WVCPD’s Mentor Training enhances leadership capacity and offers comprehensive support that will equip experienced teachers to assist beginning teachers, those entering the profession through alternate certification, and teachers who are teaching in an assignment for which they are not yet credentialed. Multiple training tracks are designed to accommodate teachers in developing the essential skills necessary to provide universal support to emerging teachers. WV Code §18A-3C-1 recommends county systems provide targeted professional development delivered at the school site using collaborative processes, mentoring, or coaching (WV Comprehensive system for teacher induction, 2013).

Mentors receive training based on the New Teacher Center’s Foundations in Mentoring (New teacher center, n.d.). This model focuses on the knowledge, skills, and understandings for those who mentor new teachers. The mentor training is guided by the belief that learning to teach is a career-long developmental process that involves a continuous cycle of planning, teaching,
and reflecting (Mentor training, n.d.). For a teacher to pursue mentor certification, WVCPD (Mentor Professional Development, n.d.) recommends the following qualities be exemplified:

1. Exemplary educator with excellent evaluations
2. Current knowledge of the school, county, and state policies
3. Understand current research, best practices, and pedagogy
4. Ability to collaborate and lead within the learning community
5. Empathetic and supportive
6. Confidential
7. Enthusiastic, caring, and available

Each county system submits an annual comprehensive system of support plan to the WVDE for teacher induction and professional growth that is written using district data and identifies action steps and evidence of impact statements (System of Support, 2013.). The plan determines the training and support needed to create a comprehensive infrastructure that routinely supports a continuous process for improving teaching and learning in their system (System of Support, 2013).

**Conclusion**

Without a focused vision of good teaching, induction activities and professional development are disconnected (Birkeland & Feiman-Nemser, 2012). The beginning teacher experiences a steep learning curve (Birkeland & Feiman-Nemser, 2012). Well-designed professional development can improve new teachers’ practice and assist in retaining them in the profession (Swanson Gehrke & McCoy, 2012). There is substantial agreement in the literature as to which supports are most helpful to new teachers (Birkeland & Feiman-Nemser, 2012). The
beginner benefits most from a comprehensive selection of supports that provide a framework for continued learning (Haggerty, Postlethwaite, Diment, & Ellins, 2011).

In West Virginia, the need for a strong and effective teaching workforce is especially compelling. Based on current statistics from the Kid’s Count Data Center, West Virginia children rank 37th nationally in the domains of economic well-being, education, health, and family and community (Kids Count Data, 2015). In a state with a population of slightly under two million residents, 25% of children were identified as living in poverty in 2012, with 52% of students receiving free and reduced meals in 2011 (Kids Count Data, 2015). Currently, 20% of high school students in West Virginia do not graduate on time (Kids Count Data, 2015). In a state in which 38% of parents lack secure employment it is critical that teachers receive the training and support to provide quality instruction to students who are facing what seem like insurmountable challenges (Kids Count Data, 2015).
CHAPTER THREE: RESEARCH METHODS

This study has a primarily quantitative survey design incorporating a qualitative component through open-response items that take into consideration the value of including the attitudes and perceptions of teachers and mentors to capture the lived experiences of teachers (Biber, 2010).

To achieve the purpose of this study the following research questions were examined:

1. What are the perceptions of beginning teachers and teacher mentors regarding the professional development topics beginning teachers need?
2. What are the perceptions of beginning teachers and teacher mentors regarding the skills that are critical to the success of beginning teachers?
3. What are the perceptions of beginning teachers and teacher mentors regarding the goals that are most important to consider in the design of professional development?
4. What are the perceptions of beginning teachers and teacher mentors regarding the professional development delivery models that are most beneficial for beginning teachers?

The research design utilized in this study, the population surveyed, the survey instrument, the data collection, and the methods used to analyze the data were chosen to address these research questions. The variables in each of the questions were considered in order to construct a study to yield findings, conclusions, and implications for educators.

Research Design

This study employs a mixed methods design, collecting both quantitative and qualitative data through self-reporting survey methods with both closed and open-ended questions. A mixed methods research design mixes both quantitative and qualitative research methods in a single
study to better understand a research problem (Creswell & Clark, 2007). Open-ended questions were incorporated into the survey methods that allowed the researcher to obtain more detailed information, enhance the findings, and increase the validity of the study (Biber, 2010). The combination of using words and narrative added meaning to numbers (Biber, 2010). Gathering descriptive data was not adequate to meet the goals of this study. By asking open-ended questions, the understanding of the professional development needs of beginning teachers were expanded to ensure that both the voices of beginning teachers and teacher mentors were heard (Biber, 2010).

**Population and Sample**

The survey was used to collect data to describe and compare the perceptions of two distinct groups, beginning teachers and teacher mentors. The population for this study was drawn from the West Virginia Center for Professional Development’s database of teachers who completed the Teacher Academy and Mentor Training. Specifically, the sample included 620 beginning teachers who attended the Teacher Academy during the 2014-15 academic year and 553 experienced West Virginia teachers who attended Mentor Training during the 2013-14 and 2014-15 academic years. Teacher Academy participants across one year were selected in comparison to Mentor Training participants across two years in order to have a more comparable number of participants from each group. The total population for the study from these two groups was 1,173 teachers.

**Instrumentation**

Choosing the appropriate instrument is vital to the integrity of the research. Surveys are the best instrument when researchers need to gather information directly from teachers and mentors about what they believe, know, and think (Fink & Kosecoff, 2013). The survey designed
for this study, entitled *Warren's Professional Development Inventory* (see Appendix A), collected data from teachers and mentors regarding their perspectives about professional development. This survey was designed to learn more about the professional development topics, professional development skills, professional development goals, and professional development models of delivery preferred by teachers in West Virginia. The response options were fashioned in an attempt to learn more about the professional development needs of beginning teachers.

The first section of the survey consisted of 10 close-ended items with a Likert scale. Smith and Glass (1987) state that scales have increased reliability over separate questionnaire items. Teachers and mentors were asked to indicate the degree to which each topic is important to a new teacher’s success using 1 = “Strongly Disagree,” 2 = “Disagree,” 3 = “Neither Disagree or Agree,” 4 = “Agree,” and 5 = “Strongly Agree.” Qualitative data were gathered concurrently through an open-ended question designed to identify additional topics not listed in the close-ended items. This section consisted of 11 total items.

The second part of the survey consisted of 16 close-ended items using the same Likert Scale to gather data related to the degree to which each skill is critical to the success of beginning teachers. Qualitative data were gathered concurrently through an open-ended question designed to identify additional skills not listed in the close-ended items. This section consisted of 17 total items.

The third part of the survey asked teachers and mentors to identify three goals from a list of eight goals that they perceived as most important in the design of professional development. An “other” option was provided for teachers and mentors to list any additional goals that were not provided in the close-ended choices.
The fourth part of the survey asked teachers and mentors to identify three models from a list of 10 models that they perceived as most beneficial for the delivery of professional development. An “other” option was provided for teachers and mentors to list any additional professional development delivery models that were not provided in the close-ended choices.

One additional open-response item was provided asking teachers and mentors to share what they perceived as the most challenging part of their job and how professional development might assist them with that challenge. The open-ended question allowed teachers and mentors to identify additional challenges that were not previously listed in the survey.

Demographics were placed at the end of the survey to gather data, such as the teacher’s county location of daily work, years of experience, gender, current work setting, and degree held. These data were gathered using a predetermined set of options except for the years of experience and county work setting for which drop down menus were provided.

Validity and Reliability

A survey must exercise valid and reliable procedures to produce accurate results (Fink, 2013). *Warren’s Professional Development Inventory* was given to a small group of Curriculum and Instruction doctoral students on July 30, 2015, and reviewed by two outside educators to determine if it was useable and useful. The inventory was pre-tested for content, style, and validity with a group of nine members. The members of the panel are listed in Appendix B. Feedback from this panel of experts was used to establish content validity and revisions to the survey were completed before it was administered to participants. Changes made as a result of this review included clarifications in the wording of prompts and resequencing of some items in lists to make review and selection easier for survey completers.
After data collection, Cronbach’s Alpha was used to assess the internal consistency of the first and second sections of the survey. Specifically, internal consistency was established for mentors’ perceptions of topics and skills (see Table 2) and teachers’ perceptions of topics and skills (see Table 3).

The alpha coefficients for mentors’ ratings of the 10 topic items (.934) and 16 skill items (.940) were above the benchmark of .70. Across all 26 topics and skills the alpha coefficient was .953, which indicates a high level of internal consistency for the scale with this sample.

Table 2. Cronbach’s Alpha Coefficient for Instrument Reliability: Mentors’ Perceptions of Topics and Skills

<table>
<thead>
<tr>
<th>Categories</th>
<th>N Scale Items</th>
<th>M</th>
<th>SD</th>
<th>Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentor Topics</td>
<td>10</td>
<td>43.38</td>
<td>6.94</td>
<td>.934</td>
</tr>
<tr>
<td>Mentor Skills</td>
<td>16</td>
<td>69.03</td>
<td>8.91</td>
<td>.940</td>
</tr>
<tr>
<td>Mentor Total</td>
<td>26</td>
<td>112.48</td>
<td>14.39</td>
<td>.953</td>
</tr>
</tbody>
</table>

The alpha coefficients for teachers’ ratings of the 10 topic items (.947) and 16 skill items (.974) were also above the benchmark of .70. Across all 26 topics and skills the alpha coefficient was .950, which indicates a high level of internal consistency for the scale with this sample.

Table 3. Cronbach’s Alpha Coefficient for Instrument Reliability: Teachers’ Perceptions of Topics and Skills

<table>
<thead>
<tr>
<th>Categories</th>
<th>N Scale Items</th>
<th>M</th>
<th>SD</th>
<th>Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Topics</td>
<td>10</td>
<td>42.16</td>
<td>7.96</td>
<td>.947</td>
</tr>
<tr>
<td>Teacher Skills</td>
<td>16</td>
<td>66.04</td>
<td>13.05</td>
<td>.974</td>
</tr>
<tr>
<td>Teacher Total</td>
<td>26</td>
<td>108.83</td>
<td>19.88</td>
<td>.950</td>
</tr>
</tbody>
</table>
Data Collection and Procedures

Approval to collect data using the survey was obtained from the Marshall University Institutional Review Board (IRB) (see Appendix C). Once approved, data were collected through an online electronic survey site, SurveyMonkey. Caution was taken to eliminate multiple addresses before the initial survey was emailed. A cover letter (Appendix D) described the study, its purpose, the survey, how participants were selected, the rationale for participation, and the significance of the responses to the research. The cover letter also confirmed the privacy and confidentiality of participants with no identifying markers being shared.

The cover letter, in the form of an electronic email message, was sent to all potential participants, inviting them to click on the live link to the survey embedded in the body of the email in order to participate in the study. The Total Design Survey Method created by Dillman (2007) states it is critical to contact respondents multiple times and provide a series of precisely laid-out steps. Survey follow-up proceeds according to a set pattern through specifically formatted follow-up letters to non-responders (Dillman, 2007).

Data collection occurred during a four-week window from October 19, 2015 to November 15, 2015. To increase response rates, the Email Invitation Collector in SurveyMonkey was used to schedule reminder messages to email recipients who did not respond to the survey. Two weeks after the initial electronic message was sent via email, non-respondents received a second email message requesting their participation. Three weeks after the initial electronic message was sent via email, non-respondents received a third email message requesting their participation. One final electronic request was sent via email to non-respondents two school days prior to the survey submission deadline. If the survey response rates had been found to be insufficient to conduct the research, paper copies of the survey would have been mailed through
the U.S. Postal Service to non-respondents using mailing addresses included in the WVCPD website database. A third attempt at data collection would have included personal phone calls requesting participation. These alternate means of data collection were not needed.

**Data Analysis Procedures**

Analyzing the data required using statistical and qualitative methods to describe and interpret the respondents’ answers to survey questions. This study included descriptive statistics and tests of significant differences to determine whether differences existed based on select demographic variables. Qualitative analysis procedures were used to sort and code responses in order to identify emergent themes based on written responses from participants.

**Summary**

The procedures described were used to examine teachers’ perceptions about the professional development needs of beginning teachers in West Virginia schools. This study provides greater insight for those responsible for designing and implementing professional learning opportunities for new teachers including, but not limited to, the West Virginia Center for Professional Development, the West Virginia Department of Education, the Regional Education Service Agencies (RESAs), county or district level professional development coordinators, and higher education faculty and staff responsible for teacher preparation programs.
CHAPTER FOUR: FINDINGS

The purpose of this mixed methods study is to examine the perceptions of teachers and mentors regarding the professional development needs of beginning teachers. This study examines what professional development topics and skills are critical to the success of beginning teachers, the important goals to consider in the design of professional development for beginning teachers, and the most beneficial models of professional development for beginning teachers. Findings are organized into the following sections: population and sample demographics, major findings for each of the four research questions investigated, and ancillary findings.

Population and Sample Demographics

A total of 1,173 surveys were distributed by email to West Virginia teachers and mentors. Of the 620 surveys distributed to teachers who attended the West Virginia Center for Professional Development Teacher Academy during the 2014-15 training year, a total of 169 responses were received, providing a return rate of 27% for a 95% confidence level with a 6.4% margin of error. Of the 553 surveys distributed to mentor teachers who attended mentor professional development between 2013-15, a total of 182 responses were received, providing a return rate of 33% for a 95% confidence level with a 5.9% margin of error. Of the 1,173 surveys distributed to teachers and mentors, a total of 351 responses were received, providing an overall return rate of 30% for a 95% confidence level with a 4.4% margin of error. Confidence levels and margin of error calculations were obtained using the random-sample calculator at http://www.custominsight.com.

Demographics were placed at the end of the survey to gather the teachers’ and mentors’ county of daily work, years of experience teaching or mentoring, gender, current work setting, and highest degree held. Data for variables were gathered using predetermined sets of options.
Teachers’ and mentors’ demographic data are presented in Table 4. County of employment data were sorted into the state’s eight Regional Education Service Agencies (RESAs) reported in Table 5.

**Table 4. Demographic and Attribute Variables**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Teachers</th>
<th>Mentors</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=160</td>
<td>n=176</td>
<td>n=334</td>
</tr>
<tr>
<td><strong>Years Experience</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 years</td>
<td>80</td>
<td>121</td>
<td>69%</td>
</tr>
<tr>
<td>4-5 years</td>
<td>36</td>
<td>15</td>
<td>9%</td>
</tr>
<tr>
<td>5+ years</td>
<td>44</td>
<td>40</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>23</td>
<td>19</td>
<td>42</td>
</tr>
<tr>
<td>Female</td>
<td>136</td>
<td>156</td>
<td>292</td>
</tr>
<tr>
<td><strong>Current Work Setting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>84</td>
<td>75</td>
<td>159</td>
</tr>
<tr>
<td>Middle</td>
<td>33</td>
<td>24</td>
<td>57</td>
</tr>
<tr>
<td>High</td>
<td>34</td>
<td>43</td>
<td>77</td>
</tr>
<tr>
<td>Central Office</td>
<td>1</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td><strong>Highest Degree</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>80</td>
<td>32</td>
<td>112</td>
</tr>
<tr>
<td>Master’s</td>
<td>74</td>
<td>136</td>
<td>210</td>
</tr>
<tr>
<td>Education Specialist</td>
<td>4</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Doctoral</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Participants’ years of experience as a teacher or years of experience as a mentor were distributed across three categories. Of the teachers responding, 50% indicated 0-3 years of teaching experience, 23% indicated 4-5 years of teaching experience, and 28% indicated more than 5 years of teaching experience. Of the mentors responding, 69% indicated having 0-3 years of experience as a mentor, 9% indicated having 4-5 years of experience as a mentor, and 23% indicated having more than 5 years of experience as a mentor.
The distribution of teachers and mentors by sex included 14% male teachers and 86% female teachers compared to 11% male mentors and 89% female mentors. The overall distribution of teachers and mentors by sex included 13% male and 87% female.

When teachers were asked to identify their current work setting by programmatic level, 53% indicated working at the elementary level, 21% indicated working at the middle school level, 21% indicated working at the high school level, 1% indicated working at the central office, and 5% indicated working in other settings, including a correctional facility, a mixture of more than one level, or as an academic coach. When mentors were asked to identify their current work setting by programmatic level, 43% indicated working at the elementary level, 14% indicated working at the middle school level, 25% indicated working at the high school level, 7% indicated working at the central office, and 12% indicated working in other settings, including a mixture of more than one level, at a Regional Education Service Agency (RESA), or mentoring as a retired educator. The overall distribution of teachers and mentors by current work setting included 47% in an elementary school setting, 17% in a middle school setting, 23% in a high school setting, 4% in a central office setting, and 9% in other settings.

The distribution of teachers by highest degree completed included 50% with a Bachelor’s (BA or BS), 47% with a Master’s (MA, MS, MEd, or MLS), 3% with an Education Specialist (EdS), and 1% with a doctoral degree (EdD or PhD). The distribution of mentors by highest degree included 18% with a Bachelor’s, 78% with a Master’s, and 4% with an Education Specialist. The overall distribution of teachers and mentors based on the highest degree achieved included 34% with a Bachelor’s, 63% with a Master’s, 3% with an Education Specialist, and 0% or n = 1 with a doctorate.
Teachers were spread across the state’s eight RESAs as follows: 21% in RESA 1, 10% in RESA 2, 20% in RESA 3, 6% in RESA 4, 14% in RESA 5, 8% in RESA 6, 11% in RESA 7, and 8% in RESA 8. Mentors were spread across the eight RESAs: 18% in RESA 1, 6% in RESA 2, 16% in RESA 3, 9% in RESA 4, 11% in RESA 5, 10% in RESA 6, 20% in RESA 7, and 10% in RESA 8. The overall distribution of teachers and mentors by RESA shows: 20% in RESA 1, 8% in RESA 2, 18% in RESA 3, 8% in RESA 4, 13% in RESA 5, 9% in RESA 6, 16% in RESA 7, and 9% in RESA 8.

**Table 5. Demographic Variables by RESA**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Teachers</th>
<th>Mentors</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Education Service Agency (RESA)</td>
<td>n=154</td>
<td>n=171</td>
<td>n=325</td>
</tr>
<tr>
<td>RESA 1</td>
<td>33</td>
<td>31</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>21%</td>
<td>18%</td>
<td>20%</td>
</tr>
<tr>
<td>RESA 2</td>
<td>15</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>RESA 3</td>
<td>31</td>
<td>27</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>RESA 4</td>
<td>10</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>6%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>RESA 5</td>
<td>22</td>
<td>19</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>14%</td>
<td>11%</td>
<td>13%</td>
</tr>
<tr>
<td>RESA 6</td>
<td>13</td>
<td>17</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>RESA 7</td>
<td>17</td>
<td>36</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>11%</td>
<td>20%</td>
<td>16%</td>
</tr>
<tr>
<td>RESA 8</td>
<td>13</td>
<td>16</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td>10%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Major Findings**

Findings related to the perceptions of teachers and mentors were analyzed using both quantitative and qualitative data obtained from the researcher designed survey. Quantitative data were analyzed using IBM SPSS version 22 to generate descriptive statistics and run tests of significant differences, as needed. Qualitative data were sorted, organized, and analyzed for emergent themes. Findings for each of four research questions are reported.

**Research Question 1: Professional Development Topics**

Research Question 1 asks, “What are the perceptions of beginning teachers and teacher mentors regarding the professional development topics that beginning teachers need?” To answer
this question teachers and mentors were asked to indicate the degree to which 10 topics were important to a new teacher’s success, using a Likert scale where 1 = “Strongly Disagree,” 2 = “Disagree,” 3 = “Neither Disagree or Agree,” 4 = “Agree,” and 5 = “Strongly Agree.” Qualitative data were gathered concurrently through an open-ended question designed to identify additional topics not listed in the close-ended items.

Table 6 shows that the majority of teachers indicated “Strongly Agree” (Mode = 5) for five topics: implementing effective classroom management practices, motivating students, building relationships with students, differentiating instruction to meet the needs of all students, and using instructional strategies that enable students to meet academic content standards. For the five remaining topics, the majority of teachers indicated “Agree” (Mode = 4): using technology tools and applications to enhance classroom instruction, using data and assessments to inform and guide classroom practice, integrating inquiry and problem-based learning, deepening content knowledge, and deepening knowledge about the Common Core State Standards.
<table>
<thead>
<tr>
<th>Topics Rated by Teachers</th>
<th>n</th>
<th>SD</th>
<th>D</th>
<th>ND</th>
<th>A</th>
<th>SA</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing effective classroom management practices</td>
<td>169</td>
<td>5%</td>
<td>1%</td>
<td>2%</td>
<td>24%</td>
<td>69%</td>
<td>5.00</td>
</tr>
<tr>
<td>Motivating students</td>
<td>169</td>
<td>4%</td>
<td>2%</td>
<td>7%</td>
<td>27%</td>
<td>59%</td>
<td>5.00</td>
</tr>
<tr>
<td>Building relationships with students</td>
<td>166</td>
<td>4%</td>
<td>2%</td>
<td>8%</td>
<td>30%</td>
<td>55%</td>
<td>5.00</td>
</tr>
<tr>
<td>Differentiating instruction to meet the needs of all students</td>
<td>168</td>
<td>5%</td>
<td>1%</td>
<td>5%</td>
<td>40%</td>
<td>49%</td>
<td>5.00</td>
</tr>
<tr>
<td>Using instructional strategies that enable students to meet academic content standards</td>
<td>169</td>
<td>5%</td>
<td>1%</td>
<td>5%</td>
<td>40%</td>
<td>49%</td>
<td>5.00</td>
</tr>
<tr>
<td>Using technology tools and applications to enhance classroom instruction</td>
<td>169</td>
<td>4%</td>
<td>2%</td>
<td>4%</td>
<td>47%</td>
<td>43%</td>
<td>4.00</td>
</tr>
<tr>
<td>Using data and assessments to inform and guide classroom practice</td>
<td>169</td>
<td>5%</td>
<td>1%</td>
<td>8%</td>
<td>52%</td>
<td>34%</td>
<td>4.00</td>
</tr>
<tr>
<td>Integrating inquiry and problem-based learning</td>
<td>169</td>
<td>5%</td>
<td>1%</td>
<td>13%</td>
<td>44%</td>
<td>36%</td>
<td>4.00</td>
</tr>
<tr>
<td>Deepening content knowledge</td>
<td>169</td>
<td>5%</td>
<td>2%</td>
<td>14%</td>
<td>42%</td>
<td>37%</td>
<td>4.00</td>
</tr>
<tr>
<td>Deepening knowledge about the Common Core State Standards</td>
<td>168</td>
<td>5%</td>
<td>2%</td>
<td>23%</td>
<td>41%</td>
<td>28%</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Table 7 shows that the majority of mentors indicated “Strongly Agree” (Mode = 5) for five topics: implementing effective classroom management practices, motivating students, building relationships with students, differentiating instruction to meet the needs of all students, and using instructional strategies that enable students to meet academic content standards. For the remaining five topics, the majority of mentors indicated “Agree” (Mode = 4): using technology tools and applications to enhance classroom instruction, using data and assessments to inform and guide classroom practice, integrating inquiry and problem-based learning, deepening content knowledge, and deepening knowledge about the Common Core State Standards.
Table 7. Professional Development Topics Perceived by Mentors

<table>
<thead>
<tr>
<th>Topics Rated by Mentors</th>
<th>n</th>
<th>SD</th>
<th>D</th>
<th>NA/ND</th>
<th>A</th>
<th>SA</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing effective classroom management practices</td>
<td>182</td>
<td>3%</td>
<td>0%</td>
<td>1%</td>
<td>11%</td>
<td>85%</td>
<td>5.00</td>
</tr>
<tr>
<td>Motivating students</td>
<td>182</td>
<td>3%</td>
<td>1%</td>
<td>3%</td>
<td>27%</td>
<td>66%</td>
<td>5.00</td>
</tr>
<tr>
<td>Building relationships with students</td>
<td>182</td>
<td>2%</td>
<td>1%</td>
<td>3%</td>
<td>32%</td>
<td>62%</td>
<td>5.00</td>
</tr>
<tr>
<td>Differentiating instruction to meet the needs of all students</td>
<td>181</td>
<td>3%</td>
<td>1%</td>
<td>4%</td>
<td>29%</td>
<td>63%</td>
<td>5.00</td>
</tr>
<tr>
<td>Using instructional strategies that enable students to meet academic content standards</td>
<td>181</td>
<td>3%</td>
<td>1%</td>
<td>6%</td>
<td>32%</td>
<td>59%</td>
<td>5.00</td>
</tr>
<tr>
<td>Using technology tools and applications to enhance classroom instruction</td>
<td>181</td>
<td>3%</td>
<td>3%</td>
<td>6%</td>
<td>48%</td>
<td>41%</td>
<td>4.00</td>
</tr>
<tr>
<td>Using data and assessments to inform and guide classroom practice</td>
<td>182</td>
<td>3%</td>
<td>4%</td>
<td>7%</td>
<td>45%</td>
<td>42%</td>
<td>4.00</td>
</tr>
<tr>
<td>Integrating inquiry and problem-based learning</td>
<td>182</td>
<td>4%</td>
<td>3%</td>
<td>7%</td>
<td>45%</td>
<td>42%</td>
<td>4.00</td>
</tr>
<tr>
<td>Deepening content knowledge</td>
<td>182</td>
<td>2%</td>
<td>1%</td>
<td>15%</td>
<td>46%</td>
<td>37%</td>
<td>4.00</td>
</tr>
<tr>
<td>Deepening knowledge about the Common Core State Standards</td>
<td>181</td>
<td>3%</td>
<td>6%</td>
<td>17%</td>
<td>44%</td>
<td>31%</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Mann Whitney-U was used to determine whether there were significant differences between teachers and mentors in their ratings of each of the 10 professional development topics. Statistically significant differences (p ≤ 0.05) were determined for three topics (see Table 8). A comparison of mean ranks shows that mentors offered statistically higher ratings than teachers when considering the need for beginning teachers to learn about implementing effective classroom management practices (.001), using instructional strategies that enable students to meet academic content standards (.006), and differentiating instruction to meet the needs of all students (.011).
Table 8. Comparison of Teachers and Mentors by Topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>n</th>
<th>SD</th>
<th>D</th>
<th>ND/NA</th>
<th>A</th>
<th>SA</th>
<th>Mode</th>
<th>Mean Rank</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing effective classroom management practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>169</td>
<td>5%</td>
<td>1%</td>
<td>2%</td>
<td>24%</td>
<td>69%</td>
<td>5.00</td>
<td>162.25</td>
<td>.001</td>
</tr>
<tr>
<td>Mentor</td>
<td>182</td>
<td>3%</td>
<td>1%</td>
<td>11%</td>
<td>85%</td>
<td>5.00</td>
<td>5.00</td>
<td>188.76</td>
<td></td>
</tr>
<tr>
<td>Using instructional strategies that enable students to meet academic content standards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>169</td>
<td>5%</td>
<td>1%</td>
<td>5%</td>
<td>40%</td>
<td>49%</td>
<td>5.00</td>
<td>162.34</td>
<td>.006</td>
</tr>
<tr>
<td>Mentor</td>
<td>182</td>
<td>2%</td>
<td>1%</td>
<td>3%</td>
<td>32%</td>
<td>62%</td>
<td>5.00</td>
<td>188.69</td>
<td></td>
</tr>
<tr>
<td>Differentiating instruction to meet the needs of all students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>168</td>
<td>5%</td>
<td>2%</td>
<td>5%</td>
<td>36%</td>
<td>53%</td>
<td>5.00</td>
<td>162.99</td>
<td>.011</td>
</tr>
<tr>
<td>Mentor</td>
<td>182</td>
<td>3%</td>
<td>1%</td>
<td>3%</td>
<td>27%</td>
<td>66%</td>
<td>5.00</td>
<td>187.05</td>
<td></td>
</tr>
</tbody>
</table>

In order to identify additional topics related to Research Question 1, teachers and mentors were asked, “What other topics do you perceive that beginning teachers need to be successful in the classroom?” A total of 92 teachers and 99 mentors responded. The 191 written responses were analyzed and organized into nine major topics, including classroom management, relationships, special education, technology, mentoring, content, collaboration, professional ethics, and personal well-being.

Classroom management, relationships, technology, and content were also represented in participants’ ratings. Written comments helped to identify related subtopics under each of these four topics. For example, related to classroom management, both teachers and mentors expressed the need for beginning teachers to develop knowledge of policies and procedures such as gaining permission to schedule a field trip, filling out an accident report, or requesting a technology repair. Teachers and mentors also discussed the importance of classroom organization, establishing rules, and planning appropriate lessons that motivate and engage students. Scheduling to accommodate students who are in and out of the classroom, discipline and behavior, setting up the classroom, starting the school year, use of time, and grading were also
identified as important subtopics related to classroom management. One teacher noted, “I believe that all aspects of classroom management are essential for beginning teachers to perform effectively. If the teacher cannot manage a classroom it will not matter what they are trying to teach the students and they will not be engaged.” Mentors, specifically, identified additional classroom management subtopics, including flexibility, multitasking, pacing and prioritizing instruction, setting classroom goals, keeping accurate and efficient records, and protecting student confidentiality.

Both teachers and mentors offered subtopics focused on building and maintaining relationships with students, parents, colleagues, and administrators. Building relationships and improving communication with co-workers, including appropriate email and written communications, were cited. Mentor teachers added the necessity to build relationships with outside agencies such as Child Protective Services (CPS) and the Department of Health and Human Resources (DHHR). Teachers and mentors noted the need for improving parental involvement and working with parents in difficult situations. Surveyed teachers identified the need for beginning teachers to understand poverty and other external factors that affect students outside of school as well as multicultural differences among student populations. Mentors added the necessity of developing attributes, such as demonstrating authentic compassion and patience and developing deep knowledge of students and their community.

Both teachers and mentors named multiple subtopics related to technology. Both survey groups noted the need for training to use the technology tools they had for instructional purposes in their classrooms. Teachers expressly identified technology programs they are required to use and master, including county and state specific programs such as Engrade, Live Grades, One Drive, WVEIS, Lexia, STAR Math and Reading, Writing across the Curriculum, Number Talks,
Renaissance, Office 365, and the WV Educator Evaluation system. Mentors additionally stated the need for teachers to learn how to organize, create, and manage electronic files and digital content.

Topics related to content and curriculum were reported by both groups, including increasing and deepening content knowledge, differentiating instruction for students, accessing a range of curricular materials, integrating multiple subjects, and mapping the curriculum to meet standards. Mentors noted the need for additional training in the areas of pedagogy, learning theories, deepening knowledge that addresses the state and the Common Core Standards, and strategies to increase the rigor of instruction.

Five new topics emerged beyond those already noted in the survey, including issues related to special education, mentoring, collaboration, professional ethics, and the personal well-being of teachers. Subtopics relating to special education were mentioned multiple times with both teachers and mentors citing the need for professional development targeting the writing, interpreting, and accommodating of Individual Education Plans (IEPs) and 504 Plans that provide services for a wide range of disabilities including English Language Learners, understanding the Student Assistance Team (SAT) process, understanding the laws governing special education and their legal responsibilities, managing students with behavior disorders, and using instructional strategies to meet the needs of all students. One teacher reported, “Teachers of students with Intellectual Disabilities (ID) need more targeted training to meet the specific needs of their students.”

The topic of mentoring also emerged as an area of need identified by both teachers and mentors. Teachers discussed the need for a school-based contact person to guide beginning teachers in fulfilling their job responsibilities, a person to be available to answer routine
questions and help with navigating through the complex maze of paperwork. One teacher shared, “I feel that teaching is the only profession that you are expected to know everything when you walk through the door on day one.” Mentors expressed that a quality mentor is essential to the beginning teacher’s success. Effective mentors can model effective teaching for the novice.

Both survey groups identified subtopics specific to the importance of collaboration among colleagues, including co-teaching and planning to deliver content to students in the most efficient manner. While both groups cited the need for more collaboration on grade-level teams and among staff members, teachers, specifically, associated collegial collaboration with a positive work environment, while mentors identified collaboration between grade levels on vertical teams, staff collaboration in school-wide Professional Learning Communities (PLC’s), and instructing and managing collaborative student groups in the classroom. Mentors also noted the need for professional development that educates beginning teachers in the professional use of email communication and social media tools such as Facebook, Instagram, Snapchat, and Twitter, specifically identifying appropriate communications in regard to the teaching profession, students, and specific job settings. Additional topics related to communication with parents, families, and colleagues. Finally, mentors considered the personal well-being of beginning teachers by expressing the need to self-reflect on their practice, balance their work life and their personal lives, and manage the stress that accompanies the first years of teaching.

Research Question 2: Professional Development Skills

Research Question 2 asks, “What are the perceptions of beginning teachers and teacher mentors regarding the skills that are critical to the success of beginning teachers?” To answer this question teachers and mentors were asked to indicate the degree to which 16 skills were critical to the new teacher’s success, using a Likert scale where 1 = “Strongly Disagree,” 2 =
“Disagree,” 3 = Neither Disagree or Agree,” 4 = “Agree,” and 5 = “Strongly Agree.” Qualitative data were gathered concurrently through an open-ended question designed to identify additional topics not listed in the close-ended items.

Table 9 shows that the majority of teachers indicated “Strongly Agree” (Mode = 5) for six skills: working with students who exhibit unsafe and disruptive behaviors, communicating effectively, keeping accurate records, creating inviting learning environments, establishing efficient classroom policies and procedures, and implementing smooth classroom transitions. The majority of teachers indicated “Agree” (Mode = 4) for nine skills: managing conflict, preparing students for high stakes tests, pacing classroom instruction efficiently, making decisions and setting learning goals, collaborating with others, interacting with colleagues, grading fairly, building leadership skills, and working with students from different cultures. Interacting with parents had an equal number of respondents indicate “Strongly Agree” (Mode = 5) and “Agree” (Mode = 4).
Table 9. Professional Development Skills Perceived by Teachers

<table>
<thead>
<tr>
<th>Skills Rated by Teachers</th>
<th>n</th>
<th>SD</th>
<th>D</th>
<th>NA/ND</th>
<th>A</th>
<th>SA</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing efficient classroom policies and procedures</td>
<td>163</td>
<td>4%</td>
<td>0%</td>
<td>6%</td>
<td>33%</td>
<td>58%</td>
<td>5.00</td>
</tr>
<tr>
<td>Preparing students for high stakes tests</td>
<td>163</td>
<td>5%</td>
<td>6%</td>
<td>25%</td>
<td>41%</td>
<td>23%</td>
<td>4.00</td>
</tr>
<tr>
<td>Working with students who exhibit unsafe and disruptive behaviors</td>
<td>162</td>
<td>6%</td>
<td>1%</td>
<td>3%</td>
<td>41%</td>
<td>50%</td>
<td>5.00</td>
</tr>
<tr>
<td>Managing conflict</td>
<td>161</td>
<td>4%</td>
<td>0%</td>
<td>6%</td>
<td>46%</td>
<td>43%</td>
<td>4.00</td>
</tr>
<tr>
<td>Implementing smooth classroom transitions</td>
<td>163</td>
<td>4%</td>
<td>1%</td>
<td>8%</td>
<td>41%</td>
<td>46%</td>
<td>5.00</td>
</tr>
<tr>
<td>Interacting with parents</td>
<td>162</td>
<td>4%</td>
<td>1%</td>
<td>7%</td>
<td>44%</td>
<td>44%</td>
<td>5.00</td>
</tr>
<tr>
<td>Pacing classroom instruction efficiently</td>
<td>162</td>
<td>4%</td>
<td>1%</td>
<td>7%</td>
<td>45%</td>
<td>43%</td>
<td>4.00</td>
</tr>
<tr>
<td>Keeping accurate records</td>
<td>163</td>
<td>4%</td>
<td>1%</td>
<td>9%</td>
<td>41%</td>
<td>45%</td>
<td>5.00</td>
</tr>
<tr>
<td>Creating inviting learning environments</td>
<td>162</td>
<td>4%</td>
<td>1%</td>
<td>8%</td>
<td>43%</td>
<td>44%</td>
<td>5.00</td>
</tr>
<tr>
<td>Communicating effectively</td>
<td>162</td>
<td>4%</td>
<td>2%</td>
<td>9%</td>
<td>41%</td>
<td>44%</td>
<td>5.00</td>
</tr>
<tr>
<td>Making decisions and setting learning goals</td>
<td>163</td>
<td>4%</td>
<td>2%</td>
<td>9%</td>
<td>48%</td>
<td>36%</td>
<td>4.00</td>
</tr>
<tr>
<td>Collaborating with others</td>
<td>163</td>
<td>4%</td>
<td>2%</td>
<td>13%</td>
<td>43%</td>
<td>38%</td>
<td>4.00</td>
</tr>
<tr>
<td>Interacting with colleagues</td>
<td>163</td>
<td>4%</td>
<td>2%</td>
<td>16%</td>
<td>42%</td>
<td>36%</td>
<td>4.00</td>
</tr>
<tr>
<td>Grading fairly</td>
<td>163</td>
<td>5%</td>
<td>1%</td>
<td>17%</td>
<td>42%</td>
<td>36%</td>
<td>4.00</td>
</tr>
<tr>
<td>Building leadership skills</td>
<td>163</td>
<td>4%</td>
<td>2%</td>
<td>15%</td>
<td>50%</td>
<td>29%</td>
<td>4.00</td>
</tr>
<tr>
<td>Working with students from different cultures</td>
<td>163</td>
<td>3%</td>
<td>2%</td>
<td>21%</td>
<td>53%</td>
<td>20%</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Table 10 shows the majority of mentors indicated “Strongly Agree” (Mode = 5) for nine skills: establishing efficient classroom policies and procedures, communicating effectively, interacting with parents, implementing smooth classroom transitions, pacing classroom instruction efficiently, keeping accurate records, managing conflict, working with students who exhibit unsafe and disruptive behaviors, and creating inviting learning environments. The majority of mentors indicated “Agree” (Mode = 4) for five skills: collaborating with others, interacting with colleagues, building leadership skills, working with students from different cultures, and preparing students for high stakes tests. An equal number of respondents indicated “Strongly Agree” (Mode = 5) and “Agree” (Mode = 4) for two skills: making decisions and setting learning goals, and grading fairly.
### Table 10. Professional Development Skills Perceived by Mentors

<table>
<thead>
<tr>
<th>Skills Rated by Mentors</th>
<th>n</th>
<th>SD</th>
<th>D</th>
<th>NA/ND</th>
<th>A</th>
<th>SA</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing efficient classroom policies and procedures</td>
<td>177</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>28%</td>
<td>70%</td>
<td>5.00</td>
</tr>
<tr>
<td>Preparing students for high stakes tests</td>
<td>176</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>37%</td>
<td>59%</td>
<td>5.00</td>
</tr>
<tr>
<td>Interacting with parents</td>
<td>177</td>
<td>1%</td>
<td>1%</td>
<td>8%</td>
<td>32%</td>
<td>58%</td>
<td>5.00</td>
</tr>
<tr>
<td>Working with students who exhibit unsafe and disruptive behaviors</td>
<td>176</td>
<td>1%</td>
<td>0%</td>
<td>3%</td>
<td>44%</td>
<td>52%</td>
<td>5.00</td>
</tr>
<tr>
<td>Managing conflict</td>
<td>176</td>
<td>1%</td>
<td>1%</td>
<td>5%</td>
<td>41%</td>
<td>52%</td>
<td>5.00</td>
</tr>
<tr>
<td>Implementing smooth classroom transitions</td>
<td>177</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>44%</td>
<td>51%</td>
<td>5.00</td>
</tr>
<tr>
<td>Keeping accurate records</td>
<td>177</td>
<td>2%</td>
<td>0%</td>
<td>7%</td>
<td>40%</td>
<td>51%</td>
<td>5.00</td>
</tr>
<tr>
<td>Communicating effectively</td>
<td>176</td>
<td>1%</td>
<td>3%</td>
<td>8%</td>
<td>38%</td>
<td>51%</td>
<td>5.00</td>
</tr>
<tr>
<td>Pacing classroom instruction efficiently</td>
<td>172</td>
<td>1%</td>
<td>0%</td>
<td>6%</td>
<td>45%</td>
<td>48%</td>
<td>5.00</td>
</tr>
<tr>
<td>Creating inviting learning environments</td>
<td>176</td>
<td>1%</td>
<td>1%</td>
<td>5%</td>
<td>48%</td>
<td>45%</td>
<td>4.00</td>
</tr>
<tr>
<td>Collaborating with others</td>
<td>177</td>
<td>1%</td>
<td>1%</td>
<td>10%</td>
<td>45%</td>
<td>45%</td>
<td>5.00</td>
</tr>
<tr>
<td>Making decisions and setting learning goals</td>
<td>176</td>
<td>1%</td>
<td>0%</td>
<td>7%</td>
<td>49%</td>
<td>43%</td>
<td>4.00</td>
</tr>
<tr>
<td>Interacting with colleagues</td>
<td>176</td>
<td>1%</td>
<td>3%</td>
<td>13%</td>
<td>42%</td>
<td>42%</td>
<td>5.00</td>
</tr>
<tr>
<td>Grading fairly</td>
<td>175</td>
<td>1%</td>
<td>3%</td>
<td>15%</td>
<td>49%</td>
<td>32%</td>
<td>4.00</td>
</tr>
<tr>
<td>Building leadership skills</td>
<td>177</td>
<td>0%</td>
<td>5%</td>
<td>23%</td>
<td>46%</td>
<td>27%</td>
<td>4.00</td>
</tr>
<tr>
<td>Working with students from different cultures</td>
<td>176</td>
<td>4%</td>
<td>10%</td>
<td>20%</td>
<td>40%</td>
<td>26%</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Mann Whitney-U was used to determine whether there were significant differences between teachers and mentors in their ratings of each of the 16 professional development skills. Statistically significant differences \((p \leq 0.05)\) were determined for seven skills (see Table 11). A comparison of mean ranks shows that mentors offered statistically higher ratings than teachers when considering the need for beginning teachers to interact with parents \((.044)\), interact with colleagues \((.016)\), collaborate with others \((.017)\), communicate effectively \((.001)\), establish efficient classroom policies and procedures \((.007)\), pace classroom instruction efficiently \((.050)\), and keep accurate records \((.021)\).
## Table 11. Comparison of Teachers and Mentors by Skill

<table>
<thead>
<tr>
<th>Skills</th>
<th>n</th>
<th>SD</th>
<th>D</th>
<th>ND/NA</th>
<th>A</th>
<th>SA</th>
<th>Mode</th>
<th>Mean Ranks</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interacting with parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>162</td>
<td>4%</td>
<td>1%</td>
<td>7%</td>
<td>44%</td>
<td>44%</td>
<td>4.00</td>
<td>159.50</td>
<td>.044</td>
</tr>
<tr>
<td>Mentor</td>
<td>176</td>
<td>1%</td>
<td></td>
<td>3%</td>
<td>44%</td>
<td>52%</td>
<td>5.00</td>
<td>178.70</td>
<td></td>
</tr>
<tr>
<td>Interacting with colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.016</td>
</tr>
<tr>
<td>Teacher</td>
<td>163</td>
<td>4%</td>
<td>2%</td>
<td>16%</td>
<td>42%</td>
<td>36%</td>
<td>4.00</td>
<td>157.76</td>
<td></td>
</tr>
<tr>
<td>Mentor</td>
<td>176</td>
<td>1%</td>
<td></td>
<td>7%</td>
<td>49%</td>
<td>43%</td>
<td>4.00</td>
<td>181.33</td>
<td></td>
</tr>
<tr>
<td>Collaborating with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.017</td>
</tr>
<tr>
<td>Teacher</td>
<td>163</td>
<td>4%</td>
<td>2%</td>
<td>13%</td>
<td>43%</td>
<td>38%</td>
<td>4.00</td>
<td>157.98</td>
<td></td>
</tr>
<tr>
<td>Mentor</td>
<td>176</td>
<td>1%</td>
<td></td>
<td>5%</td>
<td>48%</td>
<td>45%</td>
<td>4.00</td>
<td>181.14</td>
<td></td>
</tr>
<tr>
<td>Communicating effectively</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.001</td>
</tr>
<tr>
<td>Teacher</td>
<td>162</td>
<td>4%</td>
<td>2%</td>
<td>9%</td>
<td>41%</td>
<td>44%</td>
<td>5.00</td>
<td>153.23</td>
<td></td>
</tr>
<tr>
<td>Mentor</td>
<td>176</td>
<td>1%</td>
<td></td>
<td>2%</td>
<td>37%</td>
<td>59%</td>
<td>5.00</td>
<td>184.48</td>
<td></td>
</tr>
<tr>
<td>Establishing efficient classroom policies and procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.007</td>
</tr>
<tr>
<td>Teacher</td>
<td>163</td>
<td>4%</td>
<td>1%</td>
<td>33%</td>
<td>58%</td>
<td>5.00</td>
<td>5.00</td>
<td>157.79</td>
<td></td>
</tr>
<tr>
<td>Mentor</td>
<td>177</td>
<td>1%</td>
<td></td>
<td>1%</td>
<td>28%</td>
<td>70%</td>
<td>5.00</td>
<td>182.20</td>
<td></td>
</tr>
<tr>
<td>Pacing classroom instruction efficiently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.050</td>
</tr>
<tr>
<td>Teacher</td>
<td>162</td>
<td>4%</td>
<td>1%</td>
<td>7%</td>
<td>45%</td>
<td>43%</td>
<td>4.00</td>
<td>160.19</td>
<td></td>
</tr>
<tr>
<td>Mentor</td>
<td>177</td>
<td>1%</td>
<td></td>
<td>3%</td>
<td>44%</td>
<td>51%</td>
<td>5.00</td>
<td>178.98</td>
<td></td>
</tr>
<tr>
<td>Keeping accurate records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.021</td>
</tr>
<tr>
<td>Teacher</td>
<td>163</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
<td>41%</td>
<td>45%</td>
<td>5.00</td>
<td>158.88</td>
<td></td>
</tr>
<tr>
<td>Mentor</td>
<td>177</td>
<td>1%</td>
<td></td>
<td>8%</td>
<td>32%</td>
<td>58%</td>
<td>5.00</td>
<td>181.20</td>
<td></td>
</tr>
</tbody>
</table>

In order to identify additional topics related to Research Question 2, teachers and mentors were asked, “What other skills do you perceive that beginning teachers need to be successful in the classroom?” A total of 37 teachers and 34 mentors provided written responses that were analyzed and organized into nine major topics: classroom management, relationships, special
Skills related to classroom management, relationships, technology, content, and communication were also represented in participants’ ratings. Written comments helped to identify subtopics related to these skills. For example, related to classroom management, both teachers and mentors expressed the need for beginning teachers to organize their environment, including arranging the physical environment and classroom supplies. Teachers and mentors also discussed the importance of establishing policies and procedures, planning, smoothly transitioning from one activity to the next, using time efficiently, and setting up the classroom. One teacher noted, “I tend to struggle with pacing myself to get all of the necessary paperwork completed without having to rush.” In addition, mentors identified that beginning teachers need skills to conduct effective classroom discussions and efficiently manage multiple tasks at one time.

Both teachers and mentors offered subtopics focused on building and maintaining rapport with students, staff, administrators, and parents. The need for professional development that promotes understanding of students’ backgrounds, interests, cognitive abilities, learning skills, and using that information to motivate and engage students was expressed.

Teachers identified subtopics related to technology. Skill development for using Office 365 was specifically mentioned in addition to using technology tools and applications to enhance classroom instruction.

Both teachers and mentors reported the need for beginning teachers to deepen content knowledge. Teachers mentioned differentiating instruction for students to meet the needs of a mixed-ability classroom. A small number of teachers also identified skills specific to
collaboration and communication among colleagues to improve co-teaching, planning, and delivery of content. Mentors expressed the need for beginning teachers to have deep knowledge of the curriculum and related materials.

Four new skills emerged beyond those already noted in the survey, including issues related to special education, mentoring, professional ethics, and personal well-being. Subtopics related to special education were mentioned briefly by both teachers and mentors with a focus on acquiring and deepening skills to accurately document and complete the paperwork associated with special education. Mentors additionally noted that beginning teachers need to be able to identify student needs and access the resources available to students such as speech and language services.

The need for mentoring was briefly noted by teachers through requests for targeted guidance from a more experienced teacher. One teacher asked, “Who do I turn to for advice on better classroom organization?” In addition, mentors voiced that beginning teachers must be open and willing to receive advice from their more experienced mentor.

Mentors also identified professional ethics as an area for skill development. Mentors discussed the importance of student safety and the role of the beginning teacher in making good choices and assuming authority in the classroom. The importance of professional conduct in and out of the school setting was cited multiple times as an area of need.

Both teachers and mentors stated that beginning teachers need to monitor their own personal well-being, balancing work and personal responsibilities and activities with time and energy. Mentors further noted the need for beginning teachers to reflect on their practice and use that reflection to improve and grow.
Research Question 3: Goals to Consider in the Design of Professional Development

Research Question 3 asks, “What are the perceptions of beginning teachers and teacher mentors regarding the goals that are most important to consider in the design of professional development?” To answer this question, mentors and teachers were asked to identify three goals from a list of eight that they perceived as most important. An “other” option was provided for teachers and mentors to list any additional goals that were not provided in the close-ended list.

Goals identified by teachers are represented in Table 12. More than 50% of teachers indicated that professional development should model a variety of instructional strategies and lead to a measurable positive impact on teacher practice and student achievement. Fewer than 50% of teachers indicated that professional development should promote a deep understanding of a topic and that it should be school-centered and job-embedded, content-rich, standards-based, directly related to the district goals and strategic plan, and data-driven.

Table 12. Professional Development Goals Perceived by Teachers

<table>
<thead>
<tr>
<th>Goals Rated by Teachers</th>
<th>n</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional development should model a variety of instructional strategies.</td>
<td>125</td>
<td>78%</td>
</tr>
<tr>
<td>Professional development should lead to a measurable positive impact on teacher practice and student achievement.</td>
<td>109</td>
<td>68%</td>
</tr>
<tr>
<td>Professional development should promote a deep understanding of a topic.</td>
<td>56</td>
<td>35%</td>
</tr>
<tr>
<td>Professional development should be school-centered and job-embedded.</td>
<td>55</td>
<td>34%</td>
</tr>
<tr>
<td>Professional development should be content-rich.</td>
<td>49</td>
<td>30%</td>
</tr>
<tr>
<td>Professional development should be standards-based.</td>
<td>36</td>
<td>22%</td>
</tr>
<tr>
<td>Professional development should be directly related to the district goals and strategic plan.</td>
<td>33</td>
<td>21%</td>
</tr>
<tr>
<td>Professional development should be data-driven.</td>
<td>28</td>
<td>17%</td>
</tr>
</tbody>
</table>

Six teachers selected other and identified additional goals that should be considered when creating professional development. The goal to improve classroom management was mentioned most often, such as modeling classroom management techniques, providing more management
strategies, and helping teachers learn to manage all that is required in a school day. Other goals included providing professional development directly related to the teaching profession and providing ample time for the beginning teacher to apply the learning to the classroom with support in place from mentors, colleagues, and the administration.

Goals identified by mentors are represented in Table 13. More than 50% of mentors indicated that professional development should model a variety of instructional strategies and lead to a measurable positive impact on teacher practice and student achievement. Fewer than 50% of mentors indicated that professional development should promote a deep understanding of a topic, and should be school-centered and job-embedded, content-rich, standards-based, directly related to the district goals and strategic plan, and data-driven.

Table 13. Professional Development Goals Perceived by Mentors

<table>
<thead>
<tr>
<th>Goals Rated by Mentors</th>
<th>n</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional development should model a variety of instructional strategies.</td>
<td>139</td>
<td>79%</td>
</tr>
<tr>
<td>Professional development should lead to a measurable positive impact on teacher practice and student achievement.</td>
<td>125</td>
<td>71%</td>
</tr>
<tr>
<td>Professional development should promote a deep understanding of a topic.</td>
<td>58</td>
<td>33%</td>
</tr>
<tr>
<td>Professional development should be school-centered and job-embedded.</td>
<td>46</td>
<td>26%</td>
</tr>
<tr>
<td>Professional development should be content-rich.</td>
<td>44</td>
<td>25%</td>
</tr>
<tr>
<td>Professional development should be standards-based.</td>
<td>43</td>
<td>25%</td>
</tr>
<tr>
<td>Professional development should be directly related to the district goals and strategic plan.</td>
<td>41</td>
<td>23%</td>
</tr>
<tr>
<td>Professional development should be data-driven.</td>
<td>30</td>
<td>17%</td>
</tr>
</tbody>
</table>

Eleven mentors selected “other” and identified additional goals that should be considered when developing professional development. The goal to tailor professional development to the specific needs of beginning teachers was mentioned most often, such as presenting material that is meaningful and practical, relating directly to the teacher’s practice. Other goals included allowing teachers to design individual professional development plans that meet their specific needs and supporting effective classroom management.
Research Question 4: Professional Development Delivery Models

Research Question 4 asks, “What are the perceptions of beginning teachers and teacher mentors regarding professional development delivery models that are most beneficial for beginning teachers?” To answer this question, teachers and mentors were asked to identify three professional development models from a list of 10 models that they perceived as most beneficial for the delivery of professional development. An “other” option was provided for teachers and mentors to list any additional professional development delivery models that were not provided in the close-ended choices.

Models identified by teachers are represented in Table 14. More than 50% of teachers indicated they perceived face-to-face workshops and academies, and coaching and mentoring as most beneficial to the practice of beginning teachers. Fewer than 50% of teachers preferred peer observations at the school level; conferences, seminars, institutes, and classes located within the county; conferences, seminars, institutes, and classes located within the region, state, or nation; job-embedded study groups and professional learning communities; formal online classes or webinars; individual use of media such as podcasts, streaming videos, or DVDs; individual reading of print materials such as books, magazines, newsletters; and individual reading of online materials such as electronic books and online journals.
Table 14. Professional Development Delivery Models Perceived by Teachers

<table>
<thead>
<tr>
<th>Delivery Models Rated by Teachers</th>
<th>n</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face workshops/academies</td>
<td>126</td>
<td>78%</td>
</tr>
<tr>
<td>Coaching/Mentoring</td>
<td>108</td>
<td>67%</td>
</tr>
<tr>
<td>Peer observations at school level</td>
<td>57</td>
<td>35%</td>
</tr>
<tr>
<td>Conferences, seminars, institutes, classes located within the county</td>
<td>55</td>
<td>34%</td>
</tr>
<tr>
<td>Conferences, seminars, institutes, classes located within the region, state, or nation</td>
<td>50</td>
<td>31%</td>
</tr>
<tr>
<td>Job-embedded study groups and professional learning communities</td>
<td>42</td>
<td>26%</td>
</tr>
<tr>
<td>Formal online classes or webinars</td>
<td>15</td>
<td>9%</td>
</tr>
<tr>
<td>Individual use of media such as podcasts, streaming videos, or DVDs</td>
<td>13</td>
<td>8%</td>
</tr>
<tr>
<td>Individual reading of print materials such as books, magazines, newsletters</td>
<td>12</td>
<td>8%</td>
</tr>
<tr>
<td>Individual reading of online materials such as electronic books and online journals</td>
<td>11</td>
<td>7%</td>
</tr>
</tbody>
</table>

Three teachers also offered written comments. However, only one noted a preferred delivery model, reiterating a preference for informal webinars and online classes that are self-paced.

Models identified by mentors are represented in Table 15 with more than 50% of mentors indicating they perceived coaching and mentoring and face-to-face workshops and academies as most beneficial to the practice of beginning teachers. Fewer than 50% of mentors indicated a preference for beginning teachers to learn through peer observations at the school level; job-embedded study groups and professional learning communities; conferences, seminars, institutes, and classes located within the county conferences, seminars, institutes, and classes located within the region, state, or nation; individual use of media such as podcasts, streaming videos, or DVDs; individual reading of print materials such as books, magazines, newsletters; formal online classes or webinars, and individual reading of online materials such as electronic books and online.
Table 15. Professional Development Delivery Models Perceived by Mentors

<table>
<thead>
<tr>
<th>Delivery Models Rated by Mentors</th>
<th>n</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coaching/Mentoring</td>
<td>154</td>
<td>88%</td>
</tr>
<tr>
<td>Face-to-face workshops/academies</td>
<td>131</td>
<td>74%</td>
</tr>
<tr>
<td>Peer observations at school level</td>
<td>76</td>
<td>43%</td>
</tr>
<tr>
<td>Job-embedded study groups and professional learning communities</td>
<td>58</td>
<td>33%</td>
</tr>
<tr>
<td>Conferences, seminars, institutes, classes located within the county</td>
<td>43</td>
<td>24%</td>
</tr>
<tr>
<td>Conferences, seminars, institutes, classes located within the region, state, or nation</td>
<td>43</td>
<td>24%</td>
</tr>
<tr>
<td>Individual use of media such as podcasts, streaming videos, or DVDs</td>
<td>10</td>
<td>6%</td>
</tr>
<tr>
<td>Individual reading of print materials such as books, magazines, newsletters</td>
<td>6</td>
<td>3%</td>
</tr>
<tr>
<td>Formal online classes or webinars</td>
<td>5</td>
<td>3%</td>
</tr>
<tr>
<td>Individual reading of online materials such as electronic books and online journals</td>
<td>2</td>
<td>1%</td>
</tr>
</tbody>
</table>

Eight mentors selected “other” and identified additional models for delivering professional development. These included providing opportunities for beginning teachers to learn from mentors and coaches outside their school system, participating in job-embedded study groups and professional learning communities, participating in hands-on, practical professional development that directly impacts students, and self-video recordings of teaching to improve practice were mentioned.

Ancillary Findings

Question 7 on the survey asked teachers and mentors to identify the most challenging aspect of their jobs and how professional development might help with it. Challenging aspects reported by teachers and mentors are described below. In addition, findings from running tests of significant differences based on demographic variables are discussed with related data reported in Appendix H, Tables 16-19.
Most Challenging Aspect of Job as a Teacher or Mentor

In order to identify additional information regarding topics, skills, goals, and delivery models most critical to the success of new teachers, one additional open-response item was provided on the survey asking, “As a (teacher, mentor), what is the most challenging aspect of your job and how might professional development help you with it?” The 257 written responses were sorted and organized into categories and analyzed for emergent themes with data reported separately for teachers and mentors.

Teachers provided 127 written responses representing nine major challenges: classroom management, relationships, special education, technology, mentoring, differentiating instruction, content, student engagement, and collaboration and communication.

Challenges related to classroom management were mentioned most often by teachers who cited time management, planning, paperwork, assessment, and discipline as some of the most challenging aspects of their job. One teacher noted, “There never tends to be enough time to get everything done in a day.” Effective planning was also discussed related to classroom management, such as planning enough material to fill instructional time and planning lessons that motivate and engage students. Effectively managing paperwork was mentioned multiple times by teachers who expressed that they were overwhelmed by the amount of paperwork and grading required of them on a daily basis. Specifically, a teacher wrote, “The most challenging aspect of my job is probably keeping records up-to-date. The time I need to plan, with meetings occasionally during my planning, leads to less time to monitor student achievement through grading and recording of comprehension.” Other challenges included assessing students fairly and grading accurately. Discipline and classroom management, distinguishing students’ developmental levels, and managing special education students were also identified as
challenging. The need for support from the administration with disruptive students was also noted. One teacher wrote, “Classroom and behavior management was the most difficult part of being a new teacher. I did not expect the behaviors I saw and was unsure of how to handle them.”

Teachers identified building and maintaining positive, productive relationships with colleagues, students, and parents as a challenging aspect of their jobs, specifically citing working with students and parents from other cultures or from impoverished backgrounds. One teacher believed professional development targeting educational psychology, developmental psychology, and educational theory would be beneficial in helping build solid relationships between teachers and their students.

Teachers identified using technology tools and effectively infusing technology into classroom instruction as challenging to their job. Teachers also identified challenges related to curriculum and standards. For example, one teacher expressed concerns about teaching out of his content field. Professional development targeting state standards and how to integrate them into the classroom curriculum was requested.

A small number of teachers identified challenges specific to collaboration and communication among colleagues, including co-teaching between general and special educators. Several teachers commented that there is a lack of communication between the classroom teacher and the administration at the school and county level. Professional development could address the need for consistency in communication.

Teachers identified three challenges beyond topics noted in the survey: special education, mentoring, and student engagement. Teachers described feeling challenged by managing students identified with behavior disorders. Accurately documenting and completing paperwork,
including Individual Education Plans (IEPs) and 504 accommodations associated with special education students was discussed as well as planning and instructing students to ensure that all of the goals identified on the IEPs are met. Teachers identified scheduling between the special education and regular education classroom as challenging. Teachers requested professional development for special educators addressing behavior, time management, physical space, motivation and engagement, and working with children who are the product of drugs and alcohol.

The ability to motivate and engage students and the lack of consistent, high-quality guidance from experienced teachers were identified by a small number of teachers as significant challenges. One teacher stated, “One of the most challenging aspects of being a teacher is motivating students with little or no motivation.” Another teacher added, “If students are excited about learning, they will be more likely to learn. I think professional development for new teachers has to include strategies and ideas that they can implement easily and quickly the next day in their classroom.”

Mentors added 130 written responses considering challenges that were analyzed and organized into four major categories: classroom management, relationships, differentiating instruction, and other challenges specific to mentoring. Written comments helped to identify challenges under each of these four topics.

For example, related to classroom management, mentors expressed the need for beginning teachers to utilize tools such as checklists, agendas, and data collection documents to effectively manage the classroom. Classroom management subtopics were mentioned most often with mentors citing planning and pacing as the most challenging aspects. One mentor noted,
I think it is challenging to convey to the beginning teacher that you can get it all done. You will have to pace yourself with your instruction, follow the content standards, and use a variety of strategies, while at the same time make the learning experience a rewarding one for both you and your students.

Related challenges included staying current with technology skills, managing time effectively, and creating a physical learning environment that adheres to curriculum and enhances learning.

Mentors identified relationships specific to the mentor/mentee relationship as another challenging aspect of their jobs. The necessity to build a trusting relationship with the mentee was identified multiple times by mentors. One mentor conveyed. “I am most challenged to build a meaningful professional relationship with the teacher being mentored. Without that relationship/friendship, any conversation or interaction feels stilted or contrived.” Other challenges expressed relating to relationships included working with adult learners, communicating effectively with mentees, dealing with generational differences, and mentoring beginning teachers who are resistant to mentoring.

Mentors identified guiding mentees to meet the needs of their students through differentiating instruction as challenging. One mentor stated, “The most challenging aspect of my job as a mentor is making sure that all children grasp the concept that is being taught. Differentiated curriculum is important.”

Mentors identified four other challenges that extended beyond listed items included in the survey: time management, quality of mentor services, the role of the mentor, and consistent delivery of mentor services across the state of West Virginia.

Mentors identified effective time management when working with new teachers as challenging to their jobs. Five time-management subtopics emerged from 71 written responses.
including the mentor and mentee working in different buildings, scheduling common time for collaborative meetings, scheduling time to observe the mentee, mentor concerns about being out of their own classrooms including securing class coverage to conduct observations, and the mentee honoring the meeting times and the mentor/mentee relationship.

Mentors expressed concerns that their roles as mentors were not clearly defined. One mentor stated, “I am challenged to meet the county needs versus the needs of the teachers I mentor.” Another said,

In this county, they have divided duties between the school mentor and the county mentor. The school mentor is not supposed to go over differentiated instruction, classroom management, etc. That falls under the county-wide mentor duties. The school mentor is only supposed to explain the school’s policies and procedures. I believe it would be more beneficial to have the school mentor allowed to assist in these areas since they are an immediate resource instead of waiting for a monthly meeting with the county mentor.

Another mentor noted that beginning teachers are unclear about the responsibilities of the mentor and suggested that a training module should be created explaining the collaborative nature of the mentor/mentee relationship. Mentors, who may have been out of the classroom for multiple years, would benefit from technology specific training such as using applications, document creation and sharing, software, and iPads. Other deficit areas for the mentor include navigating the online and self-evaluation requirements that beginning teachers must meet.

Mentors identified the lack of consistent support across West Virginia as a challenging aspect of their job. One mentor wrote,
The forms that were provided to me from the West Virginia Center for Professional Development (WVCPD) were very effective forms to provide observation feedback and documentation of meetings. However, my county did not utilize these forms. It would be good if the state required the use of materials given to mentors at the training or that the forms required are the forms discussed and used as example forms instead.

An additional challenge to the mentor is the time it takes for the county system to assign mentors to new teachers.

Mentors wrote about the challenge of providing quality mentoring to their beginning teachers. Providing constructive criticism in a manner that will be openly received was expressed several times. A similar challenge for the mentor is addressing areas of weakness with the beginning teacher. A mentor wrote, “Being supportive and encouraging and carefully choosing how to approach difficult conversations is the key to successful mentoring and positive motivation.”

**Significant Differences Based on Demographics**

A non-parametric Mann-Whitney U (p ≤ .05) was used to determine whether significant differences existed between two items, such as male and female, compared by topics, skills, goals, and models. Kruskal-Wallis (p ≤ .05) was used to determine whether there were significant differences across multiple factors, such as developmental level, highest degree, and RESA, compared by topics, skills, goals, and models. When differences were found across multiple factors, pairwise comparisons were used to determine the specific areas of difference.

Analysis of demographic variables was first conducted for each of the 10 topics rated by mentors and teachers (see Appendix H, Table 16). The Mann-Whitney U revealed a significant difference (p ≤ .05) for one in 10 topics when comparing male and female mentors: using data
and assessments to inform and guide classroom practice (.011). Female mentors rated this topic statistically higher than male mentors. The same test revealed no significant differences (p ≤ .05) between male and female teachers’ ratings of the 10 topics.

Kruskal-Wallis revealed significant differences (p ≤ .05) across developmental levels (elementary, middle, high, central office, or other) for mentors related to one topic: deepening knowledge about the Common Core Standards (.043). Pairwise comparisons revealed specific differences between elementary and middle school mentors (.044), elementary and high school mentors (.013), and elementary and other mentors (.031), with elementary mentors rating this topic significantly higher than mentors at the other three levels. Significant differences (p ≤ .05) for teachers based on levels were revealed for using data and assessments to inform and guide classroom practice (.008). Pairwise comparisons specifically identified differences between elementary and middle school teachers (.000), with elementary teachers rating this topic significantly higher.

Kruskal-Wallis revealed no significant differences (p ≤ .05) across the highest degrees earned (Bachelor’s, Master’s, Education Specialist, or doctorate) for mentors’ ratings of the 10 topics. However, the same test revealed significant differences (p ≤ .05) for teachers related to four of the 10 topics: implementing effective classroom management practices (.043), using instructional strategies that enable students to meet academic content standards (.011), motivating students (.036), and integrating inquiry and problem-based learning (.012). Pairwise comparisons revealed a difference of .022 between Master’s and Education Specialist for implementing effective classroom management practices, with Master’s teachers offering significantly higher ratings, a difference of .016 between Master’s and Bachelor’s and .014 between Master’s and Education Specialist for using instructional strategies that enable students
to meet academic content standards with Master’s teachers offering significantly higher ratings, a difference of .019 between Bachelor’s and Master’s for motivating students with Master’s teachers offering significantly higher ratings, and a difference of .029 between Master’s and Bachelor’s and .019 between Master’s and Education Specialist for integrating inquiry and problem-based learning with Master’s teachers indicating significantly higher ratings.

Kruskal-Wallis revealed no significant differences (p ≤ .05) across RESAs (1-8) for mentors’ ratings of the 10 topics. However, the same test revealed significant differences (p ≤ .05) across RESAs for teachers’ ratings of two topics: using instructional strategies that enable students to meet academic content standards (.036) and integrating inquiry and problem-based learning (.021). Pairwise comparisons revealed a difference of .012 between RESAs 3 and 2, .019 between RESAs 3 and 7, .017 between RESAs 3 and 8, .021 between RESAs 6 and 2, .031 between RESAs 6 and 7, and .026 between RESAs 6 and 8 for using instructional strategies that enable students to meet the academic content standards with RESA 3 teachers and RESA 6 teachers offering significantly lower ratings. Pairwise comparisons revealed a difference of .044 between RESAs 2 and 5, .038 between RESAs 2 and 6, .014 between RESAs 7 and 1, .048 between RESAs 7 and 3, .001 between RESAs 7 and 5, .002 between RESAs 7 and 6, and .031 between RESAs 7 and 8 for integrating inquiry and problem-based learning with RESA 2 teachers and RESA 7 teachers offering significantly higher ratings.

Next, analysis of demographic variables was conducted for each of the 16 skills rated by teachers and mentors (see Appendix H, Table 17). The Mann-Whitney U revealed a significant difference (p ≤ .05) for one in 16 skills when comparing male and female mentors: communicating effectively (.022). Male mentors rated this skill statistically higher than female
mentors. The same test revealed no significant differences (p ≤ .05) between male and female teachers’ ratings of the 16 skills.

Kruskal-Wallis revealed no significant differences (p ≤ .05) across developmental levels (elementary, middle, high, central office, or other) for mentors’ or teachers’ ratings of the 16 skills. There were also no significant differences (p ≤ .05) across the highest degrees earned (Bachelor’s, Master’s, Education Specialist, or doctorate) for mentors related to ratings of the 16 skills.

However, there were significant differences (p ≤ .05) across the highest degrees earned for teachers’ ratings of two skills: managing conflict (.018) and establishing efficient classroom management policies and procedures (.010). Pairwise comparisons revealed a difference of .035 between Education Specialist and Bachelor’s and .007 between Education Specialist and Master’s for managing conflict with teachers having an Education Specialist offering significantly lower ratings. For establishing efficient classroom management policies and procedures, pairwise comparisons revealed a difference of .035 between Bachelor’s and Master’s with teachers having a Master’s offering significantly higher ratings; .036 between Bachelor’s and Education Specialist, with teachers having a Bachelor’s offering significantly higher ratings; and .006 between Master’s and Education Specialist, with teachers having a Master’s offering significantly higher ratings.

Kruskal-Wallis revealed no significant differences (p ≤ .05) across RESAs (1-8) for mentors’ ratings of the 16 skills. The same was true for teachers.

Analysis of demographic variables was conducted for each of the eight goals rated by mentors and teachers (see Appendix H, Table 18). Mann-Whitney U revealed a significant difference (p ≤ .05) for one in eight goals when comparing male and female mentors:
professional development should be school-centered and job-embedded (.049). Male mentors rated this goal significantly higher than female mentors. The same test revealed no significant differences (p ≤ .05) between male and female teachers’ ratings of the eight goals.

Kruskal-Wallis revealed a significant difference across developmental levels (elementary, middle, high, central office, or other) for mentors’ ratings of one goal: professional development should be data-driven (.014). Pairwise comparisons revealed a difference of .016 between middle and central office, with mentors employed in the central office offering significantly higher ratings, and differences of .015 between high-school and elementary and .007 between high school and central office, with mentors at the high school level offering significantly lower ratings. The same test revealed no significant differences (p ≤ .05) for teachers’ ratings of the eight goals.

Kruskal-Wallis revealed significant differences (p ≤ .05) across RESAs (1-8) for mentors’ ratings of one goal: professional development should be standards-based (.020). Pairwise comparisons revealed a difference of .041 between RESAs 2 and 4, .013 between RESAs 2 and 7, .022 between RESAs 6 and 1, .047 between RESAs 6 and 3, .011 between RESAs 6 and 4, .001 between RESAs 6 and 7, and .025 between RESAs 6 and 8 with mentors in RESA 2 and RESA 6 offering significantly higher ratings. There were no significant differences (p ≤ .05) across RESAs (1-8) for teachers’ ratings of the eight goals.

Last, analysis of demographic variables was conducted for each of the 10 professional development delivery models rated by mentors and teachers (see Appendix H, Table 19). Mann-Whitney U revealed a significant difference for one in 10 delivery models when comparing male and female mentors: formal online classes or webinars (.034). Male mentors rated this model...
significantly higher than female mentors. The same test revealed no significant differences (p ≤ .05) between male and female teachers’ ratings of the 10 delivery models.

Kruskal-Wallis revealed significant difference (p ≤ .05) across developmental levels (elementary, middle, high, central office, or other) for mentors’ ratings of one delivery model: formal online classes or webinars (.001). Pairwise comparisons revealed a difference of .000 between middle and elementary, .001 between middle and high, .005 between middle and central office, and .001 between middle and other, with mentors at the middle school level offering significantly higher ratings. However, there were no significant differences (p ≤ .05) across developmental levels for teachers’ ratings of the 10 delivery models.

Kruskal-Wallis revealed no significant differences (p ≤ .05) across the highest degree earned (Bachelor’s, Master’s, Educational Specialist, or doctorate) for mentors’ or teachers’ ratings of the 10 delivery models.

Kruskal-Wallis revealed significant differences (p ≤ .05) across RESAs (1-8) for mentors’ ratings for one of 10 professional development delivery models: coaching/mentoring (.034). Pairwise comparisons revealed a difference of .002 between RESAs 3 and 1, .005 between RESAs 3 and 5, .001 between RESAs 3 and 6, .009 between RESAs 3 and 7, and .049 between RESAs 3 and 8 with mentors in RESA 3 offering significantly lower ratings. The same test revealed no significant differences (p ≤ .05) across RESAs (1-8) for teachers’ ratings of the 10 delivery models.
CHAPTER FIVE: SUMMARY AND DISCUSSION

Introduction

This chapter presents the summary and discussion of the perceptions of beginning teachers and mentor teachers regarding the professional development topics and skills most critical to the success of beginning teachers, the goals most important in the design of professional development, and the most beneficial models of professional development delivery. Implications and recommendations for further study derived from the findings of Warren’s Professional Development Inventory for Teachers and Warren’s Professional Development Inventory for Mentors are also presented.

Summary of Population

Responses were received from 27% of West Virginia teachers (169 of 620) who participated in the West Virginia Center for Professional Development (WVCPD) Teacher Academy in 2014-15 and 33% of West Virginia mentors (182 of 553) who participated in WVCPD Mentor Training from 2013-15. Most of the respondents were female, including 86% of teachers and 89% of mentors. Half of teachers (50%) had 0-3 years of teaching experience and the majority of mentors (69%) had 0-3 years of mentoring experience. More than half of teachers (53%) worked in an elementary setting with an equal percentage of teachers working in middle (21%) and high school settings (21%). The majority of mentors worked in the elementary setting (43%), with fewer in the middle school (14%) and high school (25%). Half of teachers (50%) indicated having a Bachelor’s, with an additional 47% having a Master’s. The majority of mentors indicated having a Master’s (78%). All regions of the state were represented by teachers with the greatest number located in RESA 2 (21%) and RESA 3 (20%). The greatest numbers of mentors were located in RESA 7 (20%) and RESA 1 (18%).
Summary, Discussion, and Related Literature

Research Question 1: Professional Development Topics

Research Question 1 asks, “What are the perceptions of beginning teachers and teacher mentors regarding the professional development topics that beginning teachers need?” Both teachers and mentors “strongly agree” or “agree” that all 10 professional development topics identified in the literature are important to the success of West Virginia beginning teachers.

Written comments provide additional subtopics relating to rated items that designers and providers of professional development can use. Additional topics not identified in the literature also emerged from written comments providing new ideas for informing professional development providers, higher education, and county or school administrators, regarding professional development topics most important to the success of beginning teachers including special education, mentoring, collaboration, professional ethics, and personal well-being.

Teachers who lack key elements of preparation, such as classroom management procedures and routines, often depart the profession quickly. Teachers (93%) and mentors (87%) agree that implementing effective classroom management practices is a topic important to the success of beginning teachers. In the beginning of their careers, teachers are focused on establishing systems of classroom management and becoming socialized into the school culture (Strong, 2006). Both teachers and mentors agree that mastering these practices is important to the success of the novice teacher. In a study conducted by Melnick and Meister (2008), new teachers reported time management, classroom management, and preparation as top concerns. Beginning teachers need support in the areas of policy and procedure, materials, curriculum, differentiating instruction, relationships, classroom management, and student motivation (Birkeland &
Feinman-Nemser, 2012). This study agrees with these topics and related skills identified in the literature as critical to the success of new teachers.

Using instructional strategies that enable students to meet academic content standards was rated highly in this study by both teachers (89%) and mentors (94%). The literature indicates areas of high need including varying instructional strategies to meet student needs (Algozzine et al., 2007).

Both teachers and mentors indicate that beginning teachers need access to professional development to deepen their knowledge regarding the writing and interpreting of Individual Education Plans (IEPs), understanding their role on the Student Assistance Team (SAT), navigating the referral process, and planning and managing special education students in their classrooms.

Novice teachers need exposure and practice communicating effectively as well as interpersonal skills that enable them to work with students, peers, supervisors, and parents (Melnick & Meister, 2008). West Virginia mentors specifically expressed the additional need for professional development in the areas of social media and professional ethics, including the careful and appropriate use of social media, professionalism when working with students and families, and appropriate behavior and conversations about their jobs and their profession.

**Research Question 2: Professional Development Skills**

Research Question 2 asks, “What are the perceptions of beginning teachers and teacher mentors regarding the skills that are critical to the success of beginning teachers?” Both teachers and mentors “strongly agree” or “agree” that all 16 skills are critical to the success of beginning teachers. As with research question one, written comments from teachers and mentors reinforce rated topics and add to skills noted in the literature.
Beginning teachers need support in the areas of policy and procedure (Birkeland & Feinman-Nemser, 2012). Teachers (91%) and mentors (98%) agree with the literature that establishing efficient classroom policies and procedures is most important to the success of beginning teachers. Teachers (91%) and mentors (96%) also agree that it is critical for beginning teachers to acquire skills to work with students who exhibit unsafe or disruptive behaviors. The main goal of the new teacher is to survive (Mandel, 2006). Lack of knowledge often prevents new teachers from focusing on student learning (Melnick & Meister, 2008). Written feedback from this study is beneficial for giving additional information to those who design and implement professional development, prepare teachers through higher education, or guide the work of new teachers as administrators.

Teachers’ and mentors’ written comments elaborate on four skills not identified in the literature including skills related to special education, mentoring, professional ethics, and personal well-being. Comments from mentors can specifically inform policy makers and county and state administrators regarding the desire for consistent mentor policies and implementation of mentoring in West Virginia.

**Research Question 3: Goals to Consider in the Design of Professional Development**

Research Question 3 asks, “What are the perceptions of beginning teachers and mentors regarding the goals that are most important to consider in the design of professional development?” The survey asked teachers and mentors to identify the top three goals to consider in the design of professional development. Two goals stand out with more than 50% of teachers and mentors indicating that professional development should model a variety of instructional strategies and lead to a measurable positive impact on teacher practice and student achievement. It is important for professional development designers and others charged with preparing new
teachers to consider these goals when creating and choosing professional development for beginning teachers. For example, teachers and mentors want a variety of instructional strategies modeled for them within the context of the professional development with a focus on improving the practice of the beginning teacher, and in turn, increasing student achievement.

The next generation of teachers needs to be armed with the kinds of knowledge and skills necessary for students to succeed (Darling-Hammond, 2006). Building a repertoire of instructional strategies is cited as a specific area of need for new teachers multiple times in the literature (Algozzine et al., 2007; Swanson Gehrke & McCoy, 2012; Melnick & Meister, 2008; Mizell, 2010). A key purpose of professional development is to improve student achievement (Steyn, 2005).

While the literature indicates that high-quality professional learning is directly connected to consistent standards for teaching that support a vision of educational goals and support (Darling-Hammond, 2012), only 22% of teachers and 25% of mentors in this study indicated this was an important goal of professional development.

**Research Question 4: Professional Development Delivery Models**

Research Question 4 asks, “What are the perceptions of beginning teachers and teacher mentors regarding the professional development delivery models that are most beneficial for beginning teachers?” The survey asked teachers and mentors to identify the top three most beneficial professional development models. While all 10 delivery models received responses, two delivery models stand out with more than 50% of teachers and mentors identifying coaching and mentoring and face-to-face workshops as most beneficial to the practice of beginning teachers.
Teachers identified face-to-face workshops and seminars (78%), followed by coaching and mentoring (67%), as most beneficial to the practice of beginning teachers, while mentors rated coaching and mentoring (88%), followed by face-to-face workshops and seminars (74%), as most beneficial. The literature supports professional development models that are innovative in design, immersing teachers in activity, and creating networking opportunities (Birman & Porter, 2000). The literature also suggests that educators have a responsibility to share years of experiences and acquired knowledge with novice teachers through coaching and mentoring (Danielson, 2007).

While teachers and mentors in this study identified modeling of instructional strategies as a top goal for professional development, a majority of teachers (35%) and mentors (35%) did not rate peer observation at the school level as most beneficial to the practice of beginning teachers. The literature indicates that the opportunity for teachers to see, hear, and do various activities related to their content area provides a foundation for deep learning (Hirsch et al., 2005).

Experience is the main model of learning for the beginning teacher (Mizell, 2010). Professional learning activities should be designed to energize educators, connecting student learning through increased teacher learning and improved classroom practice (Birman & Porter, 2000; Mizell, 2010). Mentors identified the need for beginning teachers to connect more with coaches and mentors and engage in job-embedded professional learning communities and hands-on experiences that will directly impact students and improve practice. Mentors also indicated in written comments that beginning teachers would benefit from recording their teaching for the purpose of self-reflection.
Ancillary Findings

Question seven on the survey asked, “As a (teacher, mentor), what is the most challenging aspect of your job and how might professional development help you with it?” Teachers provided 127 written responses representing nine major challenges: managing the classroom, building relationships, navigating special education issues, using and integrating technology, establishing a mentor, differentiating instruction, improving content knowledge and delivery, engaging students, and improving collaboration and communication. In adult learning settings, the professional development must acknowledge the diverse learning that will occur in specific contexts depending on the personal beliefs, opinions, subjects taught, and values participants bring with them (Steyn, 2005).

Of these nine challenges identified by teachers in written comments, special education was the topic cited most often that was not represented on the survey. Teachers expressed concerns specifically regarding writing and interpreting special education policy and paperwork including Individual Education Plans and 504 Plans, managing behaviors, scheduling, and differentiating instruction for special education students.

Mentors added 130 written responses considering challenges that were analyzed and organized into four major categories: helping beginning teachers learn effective classroom management, establishing an effective mentor/mentee relationship, working with beginning teachers to improve the use of differentiated strategies, and other challenges specific to the mentoring role. Written comments helped to identify specific challenges under each of these four topics. The information gleaned here may be useful for establishing policies and professional development to further establish and improve mentor-targeted professional development.
Significant Differences

Non-parametric tests, Mann-Whitney U and Kruskal-Wallis, were used to determine whether significant differences (p ≤ .05) exist based on demographic variables (sex, developmental level, highest degree, or RESA) compared by topics, skills, goals, and models.

There were no significant differences between male and female teachers. Male and female mentors differed on one topic (using data and assessments to inform and guide classroom practice), one skill (communicating effectively), one goal (school-centered and job-embedded), and one model (formal online classes and webinars). However, the number of male mentors represented in the sample (19 compared to 156 female mentors) would seem to be too small to draw substantial conclusions.

Based on developmental levels elementary and middle school teachers differed related to one topic (using data and assessments to inform and guide classroom practice), with elementary teachers being more likely to strongly agree. Mentors differed on one topic (deepening knowledge about the Common Core Standards), with elementary mentors offering significantly higher ratings compared to three other levels, one goal (data driven), with central office mentors offering significantly higher ratings compared to two other levels, and one model (formal online classes or webinars), with middle school mentors offering significantly higher ratings compared to four other levels. Differences may relate to perceptions regarding the developmental level of students, perspectives based on position and experience, or perceptions influenced by prior professional development.

Teachers’ degrees made a difference related to two skills (managing conflict and establishing efficient classroom management policies and procedures) and four topics (implementing effective classroom management practices, using instructional strategies that
enable students to meet academic content standards, motivating students, and integrating inquiry and problem-based learning). There were no significant differences for mentors based on their highest degrees earned. In each case of significant differences for teachers, those with a Master’s degree offered significantly higher ratings. With the reasonable representation of teachers with Bachelor’s and Master’s degrees it may be possible to draw conclusions that degree levels might be targeted with specific professional development. There may also be some benefits to pursuing a Master’s degree.

Teachers from different regions of the state differed on two topics (using instructional strategies that enable students to meet academic content standards and integrating inquiry and problem-based learning). Mentors from different regions of the state differed on one goal (standards-based) and one model (coaching and mentoring). These differences may point to a need for more professional development to build awareness within certain regions of the state.

Implications for Action

The findings of this study should contribute valuable information to the developing knowledge base for designing and implementing professional development for beginning teachers in West Virginia. Providers including, but not limited to, the West Virginia Center for Professional Development (WVCPD), the West Virginia Department of Education (WVDE), the Regional Education Service Agencies (RESAs), and higher education may gain useful information that will guide the design and implementation of professional development for West Virginia teachers including the topics and skills most critical to address in professional development, the goals to consider when designing professional development, and the models for delivery of professional development to beginning teachers. This study may also have significance to beginning teachers, mentors and coaches, and administrators. These findings can
be translated into an action plan that will guide the curriculum for pre-service and beginning teachers. It is vital for these and other stakeholders consider the following implications of this study:

1. While teachers and mentors agree that all 10 professional development topics are important for beginning teachers, implementing effective classroom management practices and motivating students stand out as the most strongly agreed upon topics that should be addressed with professional development.

2. While teachers and mentors agree that all 16 professional development skills are critical to the success for beginning teachers, establishing efficient classroom policies and procedures and preparing students for high stakes tests stand out as the most strongly agreed upon skills that should be addressed with professional development.

3. While teachers and mentors selected all eight professional development goals, they were most likely to agree that professional development should model a variety of instructional strategies and should lead to a measurable positive impact on teacher practice and student achievement. Based on the latter finding, professional development activities should be evaluated to determine the impact on teachers and students.

4. While teachers and mentors selected all 10 professional development delivery models, face-to-face workshops and seminars and coaching and mentoring stand out as the most important delivery models that should be used to support the professional development needs of beginning teachers.

5. Teachers also identified specific challenges related to special education including writing and interpreting forms, understanding policies and codes, managing
behaviors, scheduling, and differentiating instruction for special education students. Professional development targeting this area of need should be considered.

6. Mentors also identified challenges related to their preparation to mentor, their role, the consistency of materials and delivery, and time management with their mentee. Professional development can target some of these areas of need for mentors.

7. Based on significant differences related to developmental levels, highest degree earned, and region of employment, there may be opportunities to target certain groups to better meet their professional development needs.

**Recommendations for Future Research**

This study illuminates the critical importance of designing and implementing high-quality professional development for beginning teachers. Current professional development topics offered, as well as those cited in the literature, can be a compass for agencies and organizations striving to increase the achievement of students through well-prepared teachers. As with any research, new questions arise that can only be explored through further study. Recommendations for further research are as follows:

1. Replication of this study in other states or on a national platform would be helpful for the purpose of comparison and would assist in generalizing the findings to other populations.

2. Given the role administrators play as instructional leaders, a study of principals’ perceptions of what professional development topics and skills are most important to the success of beginning teachers, the important goals to consider, and the most beneficial models of delivery could provide valuable information.
3. Structured interviews with beginning teachers and teacher mentors would allow future researchers to collect more in-depth information and gain greater understanding of teachers’ perceptions of the professional development needs of beginning teachers.

4. Significant differences found among the demographic variables might call for further examination.

5. This study specifically collected data from teachers and mentors who participated in professional development offered by the West Virginia Center for Professional Development. It may be beneficial to collect data from other teachers and mentors who may have alternate perspectives.

6. Significant differences found among the comparison of mentor and teacher perceptions regarding the professional development topics, skills, goals, and models of delivery that are most important to the success of beginning teachers might warrant further investigation.

7. Because consistent delivery of mentor services was a major constraint identified by mentor respondents, studies on the development and delivery of mentoring in West Virginia are recommended.

8. Conducting evaluation studies to assess the effectiveness of professional development for accomplishing the two key goals noted in the study, effective modeling of strategies and improving teacher practice and student achievement, are recommended.
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APPENDICES

Appendix A: Survey Instruments
# Warren’s Professional Development Inventory for Mentors

## Professional Development Topics

1. Please indicate the degree to which you perceive the following professional development topics are important to the success of beginning teachers. Check the box that best matches your opinion.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using data and assessments to inform and guide classroom practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using technology tools and applications to enhance classroom instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementing effective classroom management practices</td>
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<tr>
<td>Using instructional strategies that enable students to meet academic content standards</td>
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<tr>
<td>Differentiating instruction to meet the needs of all students</td>
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<tr>
<td>Motivating students</td>
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<tr>
<td>Building relationships with students</td>
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<tr>
<td>Integrating inquiry and problem-based learning</td>
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<tr>
<td>Deepening content knowledge</td>
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<td></td>
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</tr>
<tr>
<td>Deepening knowledge about the Common Core State Standards</td>
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</tbody>
</table>

2. What other topics do you perceive that beginning teachers need to be successful in the classroom?
3. Please indicate the degree to which you perceive the following skills are important to the success of beginning teachers. Check the box that best matches your opinion.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing conflict</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working with students who exhibit unsafe and disruptive behaviors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interacting with parents</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Interacting with colleagues</td>
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<td>Keeping accurate records</td>
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</table>
4. What other skills do you perceive that beginning teachers need to be successful in the classroom?
### Warren's Professional Development Inventory for Mentors

#### Goals of Professional Development

5. Identify the most important goals of professional development for beginning teachers? CHOOSE THREE.

- [ ] Professional development should be standards-based.
- [ ] Professional development should be directly related to the district goals and strategic plan.
- [ ] Professional development should be data-driven.
- [ ] Professional development should lead to a measurable positive impact on teacher practice and student achievement.
- [ ] Professional development should be content rich.
- [ ] Professional development should promote a deep understanding of a topic.
- [ ] Professional development should model a variety of instructional strategies.
- [ ] Professional development should be school-centered and job-embedded.

Other (please specify)
6. Which models of professional development do you perceive as most beneficial to the practice of beginning teachers? CHOOSE THREE.

- Individual reading of print materials such as books, magazines, newsletters
- Individual reading of online materials such as electronic books and online journals
- Face to face workshops/academies
- Coaching/Mentoring
- Peer observations at school level
- Job-embedded study groups and professional learning communities
- Conferences, seminars, institutes, classes located within the county
- Conferences, seminars, institutes, classes located within the region, state or nation
- Individual use of media such as podcasts, streaming videos, or DVDs
- Formal online classes or webinars

Other (please specify)


7. As a mentor, what is the most challenging aspect of your job and how might professional development help you with it?
Warren’s Professional Development Inventory for Mentors

Demographics

8. My current work setting is in ________________ County.

Other (please specify)

9. I have served as a mentor teacher for the following number of years:

- [ ] 0-3 years  - [ ] 4-5 years  - [ ] More than 5 years

10. I am:

- [ ] Male  - [ ] Female

11. My current work setting is at a(n):

- [ ] Elementary School
- [ ] Middle School
- [ ] High School
- [ ] Central Office
- [ ] Other (please specify)

12. The highest degree I have achieved is:

- [ ] Bachelor’s Degree (BA or BS)
- [ ] Master’s Degree (MA, MS, MEd, or MLS)
- [ ] Education Specialist Degree (EdS)
- [ ] Doctoral Degree (EdD or PhD)
Warren’s Professional Development Inventory for Teachers

<table>
<thead>
<tr>
<th>Professional Development Topics</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using data and assessments to inform and guide classroom practice</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Using technology tools and applications to enhance classroom instruction</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
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<tr>
<td>Implementing effective classroom management practices</td>
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<td>☐</td>
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<tr>
<td>Using instructional strategies that enable students to meet academic content standards</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
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<tr>
<td>Differentiating instruction to meet the needs of all students</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Motivating students</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
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<tr>
<td>Building relationships with students</td>
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<tr>
<td>Integrating inquiry and problem-based learning</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>Deepening content knowledge</td>
<td>☐</td>
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<tr>
<td>Deepening knowledge about the Common Core State Standards</td>
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2. What other topics do you perceive that beginning teachers need to be successful in the classroom?
Warren's Professional Development Inventory for Teachers

Skill Inventory

3. Please indicate the degree to which you perceive the following skills are important to the success of beginning teachers. Check the box that best matches your opinion.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</thead>
<tbody>
<tr>
<td>Managing conflict</td>
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<td>Working with students who exhibit unsafe and disruptive behaviors</td>
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<td>Interacting with parents</td>
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<td>Interacting with colleagues</td>
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4. What other skills do you perceive that beginning teachers need to be successful in the classroom?
5. Identify the most important goals of professional development for beginning teachers? CHOOSE THREE.

☐ Professional development should be standards-based.

☐ Professional development should be directly related to the district goals and strategic plan.

☐ Professional development should be data-driven.

☐ Professional development should lead to a measurable positive impact on teacher practice and student achievement.

☐ Professional development should be content rich.

☐ Professional development should promote a deep understanding of a topic.

☐ Professional development should model a variety of instructional strategies.

☐ Professional development should be school-centered and job-embedded.

Other (please specify)
Warren's Professional Development Inventory for Teachers

Professional Development Delivery Methods

6. Which models of professional development do you perceive as most beneficial to the practice of beginning teachers? CHOOSE THREE.

- Individual reading of print materials such as books, magazines, newsletters
- Individual reading of online materials such as electronic books and online journals
- Face to face workshops/academies
- Coaching/Mentoring
- Peer observations at school level
- Job-embedded study groups and professional learning communities
- Conferences, seminars, institutes, classes located within the county
- Conferences, seminars, institutes, classes located within the region, state or nation
- Individual use of media such as podcasts, streaming videos, or DVDs
- Formal online classes or webinars

Other (please specify)
<table>
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<tr>
<th>Open Response</th>
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7. As a teacher, what is the most challenging aspect of your job and how might professional development help you with it?
8. My current work setting is in ______________ County.

Other (please specify) __________________________

9. I have been an educator for the following number of years:

- [ ] 0-3 years
- [ ] 4-5 years
- [ ] More than 5 years

10. I am:

- [ ] Male
- [ ] Female

11. My current work setting is at a(n):

- [ ] Elementary School
- [ ] Middle School
- [ ] High School
- [ ] Central Office
- [ ] Other (please specify) __________________________

12. The highest degree I have achieved is:

- [ ] Bachelor's Degree (BA or BS)
- [ ] Master's Degree (MA, MS, MEd, or MLS)
- [ ] Education Specialist Degree (EdS)
- [ ] Doctoral Degree (EdD or PhD)
Appendix B: Panel of Experts
Panel of Experts

Melissa Farrish, Doctoral Candidate, Marshall University
Allyson Goodman, Doctoral Candidate, Marshall University
Dr. Lisa Heaton, Professor, Marshall University
Rikki Lowe, Doctoral Candidate, Marshall University
Kandas Queen, Doctoral Candidate, Marshall University
Melissa Rhodes, Doctoral Candidate, Marshall University
Bobbie Seyedmonir, Doctoral Candidate, Marshall University
Dr. Sara Stankus, Principal, Union Elementary, Upshur County
Ashley Stephens, Doctoral Candidate, Marshall University
Dr. Mary Ann Triplett, Curriculum Facilitator, Clay County Schools
Appendix C: IRB Approval
October 7, 2015

Lisa Heaton, Ph.D.
Curriculum and Instruction Department, MUGC

RE: IRBNet ID# 787907-1
At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Heaton:

Protocol Title: [787907-1] A Comparison of Perceived Professional Development Needs of Beginning Teachers in West Virginia Schools

Expiration Date: October 7, 2016
Site Location: MUGC
Submission Type: New Project APPROVED
Review Type: Exempt Review

In accordance with 45CFR46.101(b)(2), the above study and informed consent were granted Exempted approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Designee for the period of 12 months. The approval will expire October 7, 2016. A continuing review request for this study must be submitted no later than 30 days prior to the expiration date.

This study is for student Carla Warren.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Bruce Day, ThD, CIP at 304-696-4303 or day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.
To: [Email]

From: [warren44@marshall.edu]

Subject: Professional Development Needs for Beginning Teachers

Body: Dear Mentor Teacher,

You are invited to participate in a doctoral research project entitled *A Comparison of Perceived Professional Development Needs of Beginning Teachers in West Virginia Schools*, designed to examine your perceptions about what professional development topics beginning teachers need in West Virginia schools. This research study is part of the dissertation requirement for Carla Warren. The study is being conducted by Dr. Lisa Heaton and Carla Warren from Marshall University and has been approved by the Marshall University Institutional Review Board (IRB). Your opinions are very important to the success of this study.

This survey is comprised of 12 questions and will take you approximately ten minutes to complete. Your replies are anonymous, so do not type your name anywhere on the form. There are no known risks involved with this study. Participation is completely voluntary, and there will be no penalty or loss of benefits should you choose to not participate or to withdraw. If you choose not to participate, you may delete this email. You may choose not to answer any question by leaving it blank. Once you complete the survey, you can delete your browsing history for added security. Completing the online survey indicates your consent for use of the responses you supply and confirms that you are a trained mentor teacher. If you have questions or concerns about this study, you may contact me at 304-549-2226 or Dr. Lisa Heaton at 304-746-2026.

If you have questions concerning your rights as a research participant, you may contact the Marshall University Office of Research Integrity at 304-696-4303.

By completing the survey, you are also confirming that you are 20 years of age or older.

Please print this page for your records.

If you choose to participate in the study, you will find the survey at [https://www.surveymonkey.com/create/survey/preview?sm=k9UC_2Fxjouvy6RGKRbypl_UJAFcTZ_2BUOHtyRgqib9Wj0_3ID](https://www.surveymonkey.com/create/survey/preview?sm=k9UC_2Fxjouvy6RGKRbypl_UJAFcTZ_2BUOHtyRgqib9Wj0_3ID)

If the above link does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at warren44@marshall.edu or 304-549-2226.

Please respond to all questions as honestly and accurately as possible by October 15, 2015, so a valid representation of trained mentor teachers in West Virginia is presented.
Thank you in advance for your timely participation in this research study.

Warmest regards,

Carla Warren

Please note: If you do not wish to receive further emails from us, please click the link below and you will be automatically removed from our mailing list.

(LINK)
Appendix D: Initial Contact
Dear Mentor Teacher,

You are invited to participate in a doctoral research project entitled *A Comparison of Perceived Professional Development Needs of Beginning Teachers in West Virginia Schools*, designed to examine your perceptions about what professional development topics beginning teachers need in West Virginia schools. This research study is part of the dissertation requirement for Carla Warren. The study is being conducted by Dr. Lisa Heaton and Carla Warren from Marshall University and has been approved by the Marshall University Institutional Review Board (IRB). Your opinions are very important to the success of this study.

This survey is comprised of 12 questions and will take you approximately ten minutes to complete. Your replies are anonymous, so do not type your name anywhere on the form. There are no known risks involved with this study. Participation is completely voluntary, and there will be no penalty or loss of benefits should you choose to not participate or to withdraw. If you choose not to participate, you may delete this email. You may choose not to answer any question by leaving it blank. Once you complete the survey, you can delete your browsing history for added security. Completing the online survey indicates your consent for use of the responses you supply and confirms that you are a trained mentor teacher. If you have questions or concerns about this study, you may contact me at 304-549-2226 or Dr. Lisa Heaton at 304-746-2026.

If you have questions concerning your rights as a research participant, you may contact the Marshall University Office of Research Integrity at 304-696-4303.

By completing the survey, you are also confirming that you are 20 years of age or older.

Please print this page for your records.

If you choose to participate in the study, you will find the survey at
https://www.surveymonkey.com/create/survey/preview?sm=k9UC_2FxjoUgy6RGKRbypLUJAFcTZ_2BUOHtyRgqib9Wjt0_3D

If the above link does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at warren44@marshall.edu or 304-549-2226.

Please respond to all questions as honestly and accurately as possible by November 15, 2015, so a valid representation of trained mentor teachers in West Virginia is presented.
Thank you in advance for your timely participation in this research study.

Warmest regards,

Carla Warren

Please note: If you do not wish to receive further emails from us, please click the link below and you will be automatically removed from our mailing list.

(LINK)
To: [Email]

From: [warren44@marshall.edu]

Subject: Professional Development Needs for Beginning Teachers

Body: Dear Teacher,

You are invited to participate in a doctoral research project entitled *A Comparison of Perceived Professional Development Needs of Beginning Teachers in West Virginia Schools*, designed to examine your perceptions about what professional development topics beginning teachers need in West Virginia schools. This research study is part of the dissertation requirement for Carla Warren. The study is being conducted by Dr. Lisa Heaton and Carla Warren from Marshall University and has been approved by the Marshall University Institutional Review Board (IRB). Your opinions are very important to the success of this study.

This survey is comprised of 12 questions and will take you approximately ten minutes to complete. Your replies are anonymous, so do not type your name anywhere on the form. There are no known risks involved with this study. Participation is completely voluntary, and there will be no penalty or loss of benefits should you choose to not participate or to withdraw. If you choose not to participate, you may delete this email. You may choose not to answer any question by leaving it blank. Once you complete the survey, you can delete your browsing history for added security. Completing the online survey indicates your consent for use of the responses you supply and confirms that you have participated in the West Virginia Center for Professional Development Teacher Academy. If you have questions or concerns about this study, you may contact me at 304-549-2226 or Dr. Lisa Heaton at 304-746-2026.

If you have questions concerning your rights as a research participant, you may contact the Marshall University Office of Research Integrity at 304-696-4303.

By completing the survey, you are also confirming that you are 20 years of age or older.

Please print this page for your records.

If you choose to participate in the study, you will find the survey at:

[https://www.surveymonkey.com/create/survey/preview?sm=tysztArmqzxz2ZzF1wyVg3cEt0AU46BXjvAB7CxtBRA_3D](https://www.surveymonkey.com/create/survey/preview?sm=tysztArmqzxz2ZzF1wyVg3cEt0AU46BXjvAB7CxtBRA_3D)

If the above link does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at warren44@marshall.edu or 304-549-2226.
Please respond to all questions as honestly and accurately as possible by November 15, 2015, so a valid representation of West Virginia teachers is presented.

Thank you in advance for your timely participation in this research study.

Warmest regards,

Carla Warren

Please note: If you do not wish to receive further emails from us, please click the link below and you will be automatically removed from our mailing list.

(LINK)
Appendix E: Two Weeks after Survey Link Was Emailed
Dear Mentor Teacher,

Two weeks ago a link to a survey, Warren’s Professional Development Inventory, exploring the professional development needs of beginning teachers in West Virginia schools, was emailed to you.

If you have already completed and returned the survey, please accept my most sincere appreciation. If not, please respond by November 15, 2015, so a valid representation of mentor teachers in West Virginia is presented. I am grateful for your assistance and recognize how busy you are, but when experienced teachers like yourself share your opinions and experiences, we can advance the quality of beginning teachers in West Virginia, therefore increasing the achievement of our students.

Please go to the following website to complete this survey: https://www.surveymonkey.com/create/survey/preview?sm=k9UC_2FxjoUgy6RGKRbypLUJAFcTZ_2BUOHtyRgqib9Wjf0_3D

If the above link does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at warren44@marshall.edu or 304-549-2226.

Again, thank you for taking the time to participate in this important research study.

Warmest regards,

Carla Warren

Please note: If you do not wish to receive further emails from us, please click the link below and you will be automatically removed from our mailing list.

(LINK)
To: [Email]

From: [warren44@marshall.edu]

Subject: Professional Development Needs for Beginning Teachers

Body: Dear Teacher,

Two weeks ago a link to a survey, *Warren’s Professional Development Inventory*, exploring the professional development needs of beginning teachers in West Virginia schools, was emailed to you.

If you have already completed and returned the survey, please accept my most sincere appreciation. If not, please respond by November 15, 2015, so a valid representation of teachers in West Virginia is presented. I am grateful for your assistance and recognize how busy you are, but when teachers like yourself share your opinions and experiences, we can advance the quality of beginning teachers in West Virginia therefore increasing the achievement of our students.

Please go to the following website to complete this survey:
https://www.surveymonkey.com/create/survey/preview?sm=tysztArmqxzx2ZzF1wyVg3cEt0AU46BXjvAB7CxtBRA_3D

If the above link does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at warren44@marshall.edu, or 304-549-2226.

Again, thank you for taking the time to participate in this important research study.

Warmest regards,

Carla Warren

Please note: If you do not wish to receive further emails from us, please click the link below and you will be automatically removed from our mailing list.

(LINK)
Appendix F: Three Weeks after Survey Link Was Emailed
Dear Mentor Teacher,

Approximately three weeks ago a link to a survey, *Warren’s Professional Development Inventory*, exploring the professional development needs of beginning teachers in West Virginia, was emailed to you.

If you have already completed and returned the survey, please accept my most sincere appreciation. If not, please respond by November 15, 2015, so a valid representation of mentor teachers in West Virginia is presented. I am grateful for your assistance and recognize how busy you are, but when experienced teachers like yourself share your opinions and experiences, we can advance the quality of beginning teachers in West Virginia, therefore increasing the achievement of our students.

Please go to the following website to complete this survey:
https://www.surveymonkey.com/create/survey/preview?sm=k9UC_2FxjoUgy6RGKRbypLUJAFcTZ_2BUOHtyRgqib9Wjf0_3D

If the above link does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at warren44@marshall.edu, or 304-549-2226.

Again, thank you for taking the time to participate in this important research study.

Warmest regards,

Carla Warren

Please note: If you do not wish to receive further emails from us, please click the link below and you will be automatically removed from our mailing list.

(LINK)
To: [Email]

From: [warren44@marshall.edu]

Subject: Professional Development Needs for Beginning Teachers

Body: Dear Teacher,

Approximately three weeks ago a link to a survey, Warren’s Professional Development Inventory, exploring the professional development needs of beginning teachers in West Virginia, was emailed to you.

If you have already completed and returned the survey, please accept my most sincere appreciation. If not, please respond by November 15, 2015, so a valid representation of teachers in West Virginia is presented. I am grateful for your assistance and recognize how busy you are, but when teachers like yourself share your opinions and experiences, we can advance the quality of beginning teachers in West Virginia, therefore increasing the achievement of our students.

Please go to the following website to complete this survey: https://www.surveymonkey.com/create/survey/preview?sm=tysztArmqzxzx2ZzF1wyVg3cEt0AU46BXjvAB7CxtBRA_3D

If the above link does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at warren44@marshall.edu, or 304-549-2226.

Again, thank you for taking the time to participate in this important research study.

Warmest regards,

Carla Warren

Please note: If you do not wish to receive further emails from us, please click the link below and you will be automatically removed from our mailing list.

(LINK)
Appendix G: Two School Days before Survey Was Due
To: [Email]

From: [warren44@marshall.edu]

Subject: Professional Development Needs for Beginning Teachers

Body: Dear Mentor Teacher,

Approximately four weeks ago a link to a survey, *Warren's Professional Development Inventory*, exploring the professional development needs of beginning teachers in West Virginia schools, was emailed to you.

If you have already completed and returned the survey, please accept my most sincere appreciation. If not, please respond by November 15, 2015, so a valid representation of teachers in West Virginia is presented.

Please go to the following website to complete this survey:

https://www.surveymonkey.com/create/survey/preview?sm=k9UC_2FxjoUgy6RGKRbypLUJAFcTZ_2BUOHtyRgqib9Wjf0_3D

If the above link does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at warren44@marshall.edu, or 304-549-2226.

Again, thank you for taking the time to participate in this important research study by completing the survey by the end of today.

Warmest regards,

Carla Warren

Please note: If you do not wish to receive further emails from us, please click the link below and you will be automatically removed from our mailing list.

(LINK)
To: [Email]

From: [warren44@marshall.edu]

Subject: Professional Development Needs for Beginning Teachers

Body: Dear Teacher,

Approximately four ago a link to a survey, Warren’s Professional Development Inventory, exploring the professional development needs of beginning teachers in West Virginia schools, was emailed to you.

If you have already completed and returned the survey, please accept my most sincere appreciation. If not, please respond by November 15, 2015, so a valid representation of teachers in West Virginia is presented.

Please go to the following website to complete this survey:
https://www.surveymonkey.com/create/survey/preview?sm=tysztArmqzx2ZzF1wyVg3cEt0AU46BXjvAB7CxtBRA_3D

If the above link does not work, please copy and paste it into your browser. If you have other technical problems with the survey, please contact me at warren44@marshall.edu, or 304-549-2226.

Again, thank you for taking the time to participate in this important research study.

Warmest regards,

Carla Warren

Please note: If you do not wish to receive further emails from us, please click the link below and you will be automatically removed from our mailing list.

(LINK)
Appendix H: Tables of Significance
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<th>Topic by Sex: Using data and assessments to inform and guide classroom practice</th>
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<th>D</th>
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<th>A</th>
<th>SA</th>
<th>Mode</th>
<th>Mean Rank</th>
<th>Sig.</th>
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<td>SA</td>
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<th>A</th>
<th>SA</th>
<th>Mode</th>
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<th>A</th>
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<td></td>
<td>5.00</td>
<td>95.77</td>
<td>.017</td>
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| RESA 6 Teachers                                                                                  | 13 | 8%  |    |       | 69% | 23%  | 4.00 | 60.62     |      |
| RESA 2 Teachers                                                                                  | 15 | 7%  |    |       | 20% | 73%  | 5.00 | 95.73     | .021 |
| RESA 7 Teachers                                                                                  | 17 |     |    |       | 35% | 65%  | 5.00 | 92.65     | .031 |
| RESA 8 Teachers                                                                                  | 13 | 15% | 8% | 77%   |     | 5.00 | 95.77| .026      |      |

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<th>A</th>
<th>SA</th>
<th>Mode</th>
<th>Mean Rank</th>
<th>Sig.</th>
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<td>A</td>
<td>SA</td>
<td>Mode</td>
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<td>55%</td>
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Table 17. Significant Differences Based on Skills Needed by New Teachers

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<th>A</th>
<th>SA</th>
<th>Mode</th>
<th>Mean Rank</th>
<th>Sig.</th>
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<td>1%</td>
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<td>41%</td>
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<th>NA/ND</th>
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<tr>
<td>RESA 1 Mentors</td>
<td>31</td>
<td>77%</td>
<td>23%</td>
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<td>.022</td>
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<tr>
<td>RESA 3 Mentors</td>
<td>27</td>
<td>74%</td>
<td>26%</td>
<td>86.17</td>
<td>.047</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>RESA 4 Mentors</td>
<td>15</td>
<td>87%</td>
<td>13%</td>
<td>75.40</td>
<td>.011</td>
<td></td>
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<tr>
<td>RESA 7 Mentors</td>
<td>36</td>
<td>89%</td>
<td>11%</td>
<td>73.50</td>
<td>.001</td>
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<tr>
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<td>16</td>
<td>81%</td>
<td>19%</td>
<td>80.03</td>
<td>.025</td>
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Table 19. Significant Differences Based on Models of Professional Development

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<th>Models by Sex: Formal online classes or webinars</th>
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<th>Yes</th>
<th>Mean Rank</th>
<th>Sig.</th>
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<td>Male Mentors</td>
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<td>11%</td>
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<td>Female Mentors</td>
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<table>
<thead>
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<th>Models by Level: Formal online classes or webinars</th>
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<th>Mean Rank</th>
<th>Sig.</th>
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<tr>
<td>Middle Mentors</td>
<td>24</td>
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<td>17%</td>
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<td>Elementary Mentors</td>
<td>75</td>
<td>100%</td>
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<td>High Mentors</td>
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<td>2%</td>
<td>87.53</td>
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<tr>
<td>Central Office Mentors</td>
<td>12</td>
<td>100%</td>
<td></td>
<td>85.50</td>
<td>.005</td>
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<tr>
<td>Other Mentors</td>
<td>21</td>
<td>100%</td>
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<td>85.50</td>
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<table>
<thead>
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<th>Models by RESA: Coaching/Mentoring</th>
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<th>Mean Rank</th>
<th>Sig.</th>
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<td>RESA 3 Mentors</td>
<td>27</td>
<td>33%</td>
<td>67%</td>
<td>68.50</td>
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<tr>
<td>RESA 1 Mentors</td>
<td>31</td>
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<td>94%</td>
<td>91.48</td>
<td>.002</td>
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<td>RESA 5 Mentors</td>
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<td>5%</td>
<td>95%</td>
<td>92.50</td>
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<tr>
<td>RESA 6 Mentors</td>
<td>17</td>
<td>100%</td>
<td></td>
<td>97.00</td>
<td>.001</td>
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<tr>
<td>RESA 7 Mentors</td>
<td>36</td>
<td>11%</td>
<td>89%</td>
<td>87.50</td>
<td>.009</td>
</tr>
<tr>
<td>RESA 8 Mentors</td>
<td>16</td>
<td>13%</td>
<td>88%</td>
<td>86.31</td>
<td>.049</td>
</tr>
</tbody>
</table>
Appendix I: Author’s Curriculum Vitae
Carla Y. Adams Warren

WV Center for Professional Development
208 Hale Street
Charleston, WV 25301
Phone: 304-558-0539
Fax: 304-558-0989

142 Candlewyck Drive
Hurricane, WV 25526
Phone: 304-549-2226
email: warren44@marshall.edu
email: carlawarren@suddenlink.net

Education

Educational Specialist (EdS), 2015
Marshall University

Master of Arts (MA), 1992
Marshall University
Major: Elementary Education

Bachelor of Arts, (BA), 1988
Marshall University
Major: Elementary Education (Language Arts Grades 4-8)

Professional Work Experience

Teacher in Putnam County, WV Schools (1989-2009)

Literacy Tutor (1991-1992)
Learning Unlimited
Huntington, WV

Freelance Writer for Mailbox Magazine (2001)

Director of Mentoring and Beginning Teacher Academy Programs (2009-Present)
WV Center for Professional Development
Charleston, WV
Certification/License

Professional Teaching Certifications

Elementary 1-6

Language Arts 4-8

National Board Certification-Early Childhood Generalist

Presentations

Childers, D., Frazier, C., Warren, C. (June 18, 1996). “Parent+ Teachers= A Winning Combination.” West Virginia Governor’s Summer Institute, Capital High School, Charleston, WV.


Childers, D., Warren, C. (August 1996). “Parent+ Teachers= A Winning Combination.” West Virginia Governor’s Summer Institute, Martinsburg High School, Martinsburg, WV.


Warren, C. (July 7-9, 1997). “K-2 English The Starting Line Up.” West Virginia Governor’s Summer Institute, Braxton Middle School, Sutton, WV.

Warren, C. (July 14-16, 1997). “K-2 English The Starting Line Up.” West Virginia Governor’s Summer Institute, Martinsburg High School, Martinsburg, WV.

Warren, C. (July 30-August 1, 1997). “K-2 English The Starting Line Up.” West Virginia Governor’s Summer Institute, Cabell Midland High School, Ona, WV.


Warren, C. (July 6-9, 1998). “Multicultural Literature.” West Virginia Governor’s Summer Institute, Martinsburg High School, Martinsburg, WV.

Warren, C. (July 6-9, 1998). “K-2 English Strategies.” West Virginia Governor’s Summer Institute, Martinsburg High School, Martinsburg, WV.

Warren, C. (July 13-16, 1998). “Multicultural Literature.” West Virginia Governor’s Summer Institute, Westwood Middle School, Morgantown, WV.


Chapman, B., Fillmore, P., Warren, C. (June 14-17, 1999). “Quick and Easy Strategies for Reading in Y2K”. West Virginia Governor’s Summer Institute, Capital High School, Charleston, WV.

Warren, C. (June 23-25, 1999). “Team Facilitator.” West Virginia Governor’s Summer Institute, Wheeling, WV.

Warren, C. (July 14-16, 1999). “Team Facilitator.” West Virginia Governor’s Summer Institute, Martinsburg, WV.


Warren, C. (June 12-15, 2000). “The Vowels of Classroom Management.” Keynote Speaker for Governor’s Summer Institute, Riverside High School, Belle, WV.


Warren, C. (July 5-7, 2000). “The Vowels of Classroom Management.” Keynote Speaker for Governor’s Summer Institute, Braxton Middle School, Sutton, WV.


Warren, C. (July 17-20, 2000). “The Vowels of Classroom Management.” Keynote Speaker for Governor’s Summer Institute, Huntington High School, Huntington, WV.


Warren, C. (July 2000). “The Vowels of Classroom Management.” Keynote Speaker for Governor’s Summer Institute, Martinsburg High School, Martinsburg, WV.

Warren, C. (July 2000). “K-2 English Strategies.” West Virginia Governor’s Summer Institute, Martinsburg High School, Martinsburg, WV.

Warren, C. (July 31-August 3, 2000). “The Vowels of Classroom Management.” Keynote Speaker for the Governor’s Summer Institute, WVUP, Parkersburg, WV.


Warren, C. (October 17-19, 2000). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Lakeview Resort, Morgantown, WV.

Warren, C. (October 19, 2000). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Charleston House Holiday Inn, Charleston, WV.

Warren, C. (October 23-25, 2000). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Charleston House Holiday Inn, Charleston, WV.
Warren, C. (November 5-6, 2000). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Holiday Inn Martinsburg, Martinsburg, WV.

Warren, C. (November 5-6, 2000). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Jefferson County High School, Shenandoah Junction, WV.

Warren, C. (November 7-8, 2000). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Hampshire County High School, Romney, WV.

Warren, C. (November 13-14, 2000). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Holiday Inn Martinsburg, Martinsburg, WV.

Warren, C. (January 30-31, 2001). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Charleston House Holiday Inn, Charleston, WV.

Chapman, B., Fillmore, P., Warren, C. (June 11-14, 2001). “Getting Started with Guided Reading and Activity-Based Learning.” Facilitator for the Governor’s Summer Institute, Riverside High School, Belle, WV.


Warren, C. (October 18-19, 2001). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Lakeview Resort, Morgantown, WV.

Chapman, B., Fillmore, P., Warren, C. (October 18-19, 2001). “Getting Started with Guided Reading and Activity-Based Learning.” Facilitator for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Lakeview Resort, Morgantown, WV.

Warren, C. (October 23-24, 2001). “The Vowels of Classroom Management.” Keynote Speaker for the West Virginia Center for Professional Development Beginning Teacher/Mentor Institute, Charleston House Holiday Inn, Charleston, WV.


Publications


Honors and Awards

WVCPD Ideas That Work Award, 1991
Putnam County Teacher of the Year, 1993
RESA III Exemplary Teaching Award, 1993
Ashland Oil Golden Apple Award, 1994
National Board Certification, Early Childhood Generalist, 2001
Arch Coal Teacher Achievement Award, 2002
National Board Certification, Early Childhood Generalist Renewal, 2011