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Case Study of Online Mentoring's Effectiveness for Beginning Teachers

by

Sarah A. Moran

A Dissertation submitted to the Education Faculty of Lindenwood University

in partial fulfillment of the requirements for the

degree of

Doctor of Education

School of Education

Online Mentoring's Effectiveness for Beginning Teachers

by

Sarah A. Moran

This dissertation has been approved in partial fulfillment of the requirements for the

degree of

Doctor of Education

at Lindenwood University by the School of Education

Beth Monix-Death

Dr. Beth Kania-Gosche, Dissertation Chair

Dr. Deb Ayres, Committee Member

_ _ _ Ipr, John Long, Committee Member

8-22-14

Date

8/22/14

Date

8.22.14

Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Sarah A. Moran

Signature: Splaran Date: 8 22/14

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Abstract

Because of the increase of online education options and the continuously increasing demands on teacher time, this case study analyzed online mentoring's effectiveness for beginning teachers in one Midwestern school. Specifically, the case study analyzed what, if any, the effects were of including an online learning forum to modify the traditional teacher mentoring program as well as the experiences of the mentees. A further analysis was conducted considering the administrator's role in the creation and facilitation of an online learning forum for teacher mentoring. To guide the creation and maintenance of the online learning forum, the participating teachers completed the survey 'Beginning Teacher's Views on Practice' three times throughout the year of research. Both quantitative survey data as well as qualitative data including in-depth interviews and discussion board posts were later analyzed. From the survey analysis it was concluded that of the 12 areas of needed development indicated by the participating teachers, nine indicated minimal to strong positive growth. This level of growth indicated the online learning forum was able to provide beginning teachers with necessary career development. In regard to the experience of the mentees, through indepth surveys it was indicated that the online mentoring program often reflected aspects of previously conducted research; however, most importantly, the online learning forum experience provided a structured but personalized approach to learning. Considering the administrator's role in the facilitation of the online learning forum, it was concluded that the role is complex in that no matter the amount of trust and community built between the administrator and the beginning teachers, there is still a supervisor-subordinate relationship that is difficult to overcome. Although this case study offers a general

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context of an online learning forum for beginning teachers, further studies should investigate a larger number of participants who span several schools or several districts to increase participation and variety of perceptions and experiences. Further, it would be advantageous to investigate how multiple, non-administrative mentors who maintain the online learning forum affect the participants' experiences.

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Chapter One

Overview

In a commentary written for the June 12, 2013, edition of *Education Week*, author Kriegel (2013) related a story of his first day teaching. He was trying to prepare his students for dismissal time, and, when everything had gone awry and a majority of them were "running, playing tag, or rolling around on the concrete in fits of laughter, backpacks tossed mid-stride" (p. 44), his principal turned to him, "half laughing, half serious, and [said], 'You'll get the hang of it'" (p. 44). In a profession where nearly 50% of employees leave within the first five years (Kriegel; National Commission on Teaching and America's Future, 2007), and in which such turnover costs school districts across the nation upwards of \$7 billion (Kriegel), perhaps it is time to start answering Kriegel's question to readers: "Is it really necessary for new teachers to reinvent the wheel every September?" (Kriegel, p. 44).

School districts across the nation are answering that question with a resounding "no", believing that all students deserve competent teachers who will help them fulfill their potential. Consequently, in order to avoid the trial-and-error approach aforementioned by Kriegel (2013), one which leaves teachers frustrated and students floundering, districts have developed various approaches which provide new teachers guidance at the hands of more experienced teachers. In Missouri, new teachers, as required by law, are assigned mentors; these mentor teachers are veteran teachers who, ideally, teach within the same grade-level or content area as the new teacher and serve to provide advice, answer questions, and act as a sounding board for teacher reflection and/or frustration. Mentoring, though, can have mixed results depending on its implementation (Feiman-Nemser, 2012). Further, many school districts find themselves struggling even when mentors are in place due to methods in selection of mentors (Hargreaves & Fullan, 2000) or a lack of appropriate training of mentors (Gardner, 2009). Thus, this study was firstly conducted in order to determine best practices in the area of mentoring. Secondly, it was conducted with the idea that rather than one-on-one mentoring, an online mentoring group could be formed that would allow several new teachers to be mentored by one or more highly qualified mentor.

Researcher's Background

The origins of this research lay at the heart of my own teacher induction process. In 1998, I began my undergraduate degree at a Midwestern University, and by the year 2000, I was heavily involved in teacher preparation coursework—classroom management, assessment, technology in the classroom, etc. However, it was all theoretical, abstract, because I had no experience to which to connect it. What I knew about education was what I had seen growing up: that teachers taught class from the front of the room, assigned reading and writing assignments, gave tests, and called home if a student was a behavior concern. Somewhat to my surprise, according to my coursework, teaching seemed to be much more than just those few activities. I was nervous about my adventure into the classroom, and no number of practicum experiences was able to calm my nerves. The opposite, in fact, was true; I became more nervous the closer I came to graduation, wondering whether I had what it took to step into a classroom and guide the learning of up to 150 students a school year. My student teaching experiences, though, were helpful. They allowed me to be guided through the many processes involved in planning and executing lessons. My cooperating teachers were kind, helpful, and supportive, never letting me fail without helping me discover what I could do to be more effective the next time I tried.

After graduating in December of 2002 and securing a job for the 2003-2004 school year, I was on my own. This was frightening in and of itself, but what made it absolutely petrifying was that I was stepping out onto a stage of accountability, one the likes of which had not been seen before in American education. In January 2002, President George W. Bush had signed into law the No Child Left Behind Act (NCLB) of 2001 (Editorial Projects in Education Research Center, 2011), a standards-based, accountability-laden system that would change the way we educate students. The fact that NCLB had been introduced into law a full year and a half before I began teaching did not provide my colleagues at the first school where I taught an advantageous increase in knowledge. My fellow teachers in the Language Arts department in which I was employed knew very little in the way of NCLB, and I found myself perhaps more wellversed than they in the intricacies of the legislation, let alone how they applied to actual teaching. Although I was assigned a mentor, she did little more for me than attend the required district-level meetings and sign the required paperwork that I completed on my own. There was no modeling, no constructive feedback, and worst of all, very little in terms of support or concern.

Although I was brimming with knowledge and strategies as a young, novice teacher, I did not feel it was my place to tell these veteran teachers how to do their jobs; after all, some of them had been teaching for upwards of 25 years, longer than I had been alive. So at department meetings, which were much more meetings of formality than a cooperative learning community, I kept quiet and contributed to the status quo.

But, I felt cheated; these were the professionals who were supposed to be guiding me in my formative teaching experiences, helping me to become a more effective teacher. Unfortunately, I did not receive the instructional or curricular nor the cultural or social support novice teachers need in order to develop their abilities (Fry, 2010; Brown, 2012; Scherer, 2012), and as such, I made many mistakes along the way as I blundered through trial-and-error after trial-and-error.

For example, my first year in the classroom was wrought with student behavior concerns. I had posted a list of 20 rules, so I was unsure why the students were unclear as to how they were to behave while in my classroom. No one, not even my mentor, suggested minimizing the rules to a practicable, non-micromanaging level and teaching the expected behaviors up front. Only after attending a conference over the next summer did I realize my mistake. In retrospect, I remembered my mentor had five classroom rules, but we had never discussed why; further, when I would go to her with a complaint about student behavior, we never discussed what the cause of the behavior might be in order to affect change, only the consequence.

The same trial-and-error held true to my academic endeavors as a teacher. I began the school year by teaching sentence diagramming, a strategy that had long been outdated as a best practice. Not only was this a catastrophe due to its lack of opportunity for student engagement, it also failed miserably because I had not assessed for students' prior knowledge of the parts of speech. Both of these errors set my students up for failure and me for a struggle from which I was not sure how to escape. After three years of teaching, I had made enough mistakes to decide that teaching was not the profession for me; I, along with one-third of all the teachers who had joined the profession with me in 2003 (Kopkowski, 2009), resigned. I was tired of being frustrated, overwhelmed, and, as I saw it, underappreciated. I walked out of my first job feeling a huge weight had been lifted from my shoulders; the future of our nation's children was no longer dependent on me!

But, as it were, my teaching career was not finished. My life circumstances, which had allowed me to quit teaching in the first place, changed, and back to work I went. But this time, I was hired by a school district that took a different approach to the induction process of its new teachers. Although the schools were only physically 15 miles apart, they were worlds apart in regard to their human resources philosophies.

In my new school, I was assigned a mentor who had undergone training and understood the necessity of being supportive and constructive. In many ways, I still felt like a first-year teacher, and although I was not required to attend the first-year teacher meetings, there were still many opportunities for us to interact and for her to help me build my capacity as a teacher.

I will not paint this new school as a perfect picture; indeed, it was far from it. Although I now had a capable mentor who could assist me in my growth, I still struggled. It was not until the next year—the fifth in my career—that I finally felt like I had my feet beneath me, that maybe I could be a successful teacher after all. But, upon reflection, I was disappointed that I had not met my potential as a teacher the first four years of my career. Having reflected on my own experience and having heard countless stories of similar situations from teachers in all subject areas and grade levels, I wanted to consider an alternative option to traditional mentoring and teacher induction, one that would allow for all teachers to have an opportunity to have a quality mentor and a teacher induction program of value. What if there was a way to connect beginning teachers to a veteran teacher who was trained in mentoring and able to meet the specific needs of each new teacher? That seemed, at first, like a good idea, but not one that could be easily achieved; after all, one individual would not have time to mentor several novice teachers simultaneously. Then, I took a step into online learning, and the idea became much more feasible.

My first foray into online learning was somewhat disagreeable. I took an online course as a graduate student and found that it was very time-intensive, and further, the professor seemed to have hidden expectations as to what was, and was not, quality work. This was one of the first few online courses offered by the university at which I attended, and as such, there really were few, if any, standards for professors to meet. There was also little interaction in the course; instead, each student posted the answer to each question, and the professor marked it as either being proficient or not. I found myself writing volumes of information, hoping to hit on what he was looking for somewhere in my answer. This type of learning did not make sense to me; after all, most of the time it was a regurgitation of material I had read, not a construction of what I knew.

I was later offered the opportunity to teach my own online course for the same university; I hesitated, knowing that I did not want to conduct more students through the same experience I had. However, after talking with an advisor, who had also taught online courses before and guaranteed me help in creating a course that would offer students an interactive, constructive experience, I agreed to do it. Several years later, after having taught one or two online courses per semester, I began to understand the value of building online community, building trust between participants, and providing students opportunities to construct their knowledge through interactive activities.

Considering that understanding as well as my desire to help new teachers evolve in their practice, I began pondering ways in which the two worlds of online learning and personal mentoring could merge. Thus, a thought manifested: In a world which does not assure a one-on-one mentoring relationship will provide the necessary support and constructive feedback necessary for teacher development, if quality teacher mentors were available online, forums for interaction between them and novice teachers could occur; and still better, novice teachers could learn from the wealth of information provided by all of the involved mentors, not just one.

During the summer of 2012, I was hired into my first administrative position as an assistant principal in a suburban school district. As fate would have it, one of my areas of responsibility was teacher induction into our building. After inquiring about what had been done in the past and finding that little had been done besides a beginning of the year meeting and building tour, it became evident that this could be a perfect opportunity to pilot an online teacher mentoring program.

Purpose of the Dissertation

Through the course of its history, the United States has transformed itself from an agricultural economy to that of an industrial economy; a nation of farmers became a nation of factory workers because of technological innovations. Within the past 100

years, the nation has transformed again, and as before, technology was at the forefront of the change (Deleo, 2013). As of 2011, 6.1 million students were enrolled in online learning classes, and enrollment into online courses has "been growing substantially faster than overall higher education enrollments" (Allen & Seamen, 2011, p. 4). Because of this "unbridled growth" (p. 6), some have questioned whether online learning is as effective as a traditional classroom setting; but, as Allen and Seamen reported after reviewing a series of studies, "chief academic officers rate the learning outcomes for online education 'as good as or better' than those for face-to-face instruction" (p. 5). Thus, it is evident that an online learning format produces results in higher education; further, the enrollments indicate that adults are showing a preference for the more convenient, flexible, and cost-effective method (Moore, 2011; Allen & Seamen).

However, little, if any, research has been done to measure the effectiveness of combining online learning with teacher mentoring. This research served as action research studying a pilot online teacher induction program.

Rationale

Beginning teachers needed time—to learn curriculum, to plan, to ask questions, to find and/or create resources, etc. (Bobbitt, 2008); but, rarely were new teachers allowed this time. Paperwork, meetings, grading, differentiating instruction, among other activities, took up precious minutes. With the emergence of online forums and the overall general success of online learning, it became possible to hold teacher mentoring meetings through discussion boards. Traditionally, new teacher meetings were held monthly and would last roughly one hour. Many new teachers viewed the meetings as a formality but few as worthwhile, whereas an online option could potentially have positive effects on the learning outcomes of participants because of its nature.

To begin, an online forum would be flexible (Barr & Miller, 2013; Lowe, Estep, & Maddix, 2012); participants could work on the course while at work or from home, allowing work to be done at the convenience of the participant. Secondly, an online forum would be more participant-directed; topics and/or discussion threads could be added when new issues arose, also adding a sense of relevancy to what the participants were doing. Lastly, with an online forum there was a more immediate response; when a participant had to wait for a monthly meeting to ask questions or to bounce ideas off other teachers, the situation the teacher was involved with may have already been resolved or at least passed. It is the goal of this research to explore whether an online learning forum can be an effective and positively received means of presenting teacher induction.

Research Questions and Hypotheses

As stated previously, this research was designed to identify the characteristics of online learning that lead to success and then utilize those characteristics in an online teacher mentoring program in order to qualitatively measure the program's overall effectiveness. The questions guiding this research were as follows:

- 1. What, if any, are the effects of including an online learning forum in one school district to modify the traditional teacher mentoring program?
- 2. What is the administrator's role in the creation and facilitation of an online learning forum for teacher mentoring?
- 3. What is the experience of the mentee in an online mentoring program?

Limitations

One limitation of this qualitative research, and action research specifically, is that its findings cannot be generalized to a larger population (Fraenkel, Wallen, & Hyun, 2012). The experiences that the participants have within the online learning forum and which are described throughout the research are specific to them. As such, no broad recommendations can be made, only suggestions that must be matched to each context in which they are used.

Also, the nature of this research is exploratory and has been somewhat tailored to meet the needs of the participants involved. For example, if a measurement of professional development needs indicated that the participants wanted more information on cooperative learning strategies, it could be provided to them by a facilitator; another group of people may have different needs.

Another limitation is that the learning accomplished in this study by its participants cannot, and will not, occur in a vacuum. It is anticipated that participants will be experiencing an on-going learning curve during which new challenges and questions are constantly posed. They will, in all probability, learn through conversations they have with colleagues, district-level induction experiences, trial and error, and possibly even additional courses they take to maintain their certifications.

Further, because this study involved all of the new teachers within the building, there was no true constant. Therefore, it was impossible to measure, or at least surmise as to, the value-added between participants and nonparticipants.

Next, time played a limiting role. By nature, action research is a cyclical process that repeats itself to continuously improve upon itself. However, because of the

constraint of a restricted time frame, the end results may be fewer than if the process were allowed to repeat through many rotations. In addition, the number of new teachers each year varies; the researcher was unable to repeat the online teacher induction the next year because there were no new hires.

Lastly, the action research conducted was not wholly inclusive; instead, the primary researcher was the only person involved in the action research process. Thus, the collaborative inquiry and discussion that might typically take place amongst an action research team did not occur. Further, the researcher was also a supervisor of the participants; although the relationship was non-evaluate in nature, it may still be considered a limitation because of the influence it may have affected.

Definition of Terms

Attrition: "the exit of teachers from the profession" (Alliance, 2005, para. 2) not due to reduction-in-force or non-renewal.

Induction: a varying length of time (one to five years) during which novice teachers are oriented to the school, district, and profession into which they have been hired (MADESE, 2002).

Mentor: an experienced or veteran teacher who agrees to serve as guide for a new teacher's experience, offering counsel, support, modeling, etc. in order to build capacity within the new teacher;

a cooperative process whereby the mentor participates in assessing mentee learning needs, planning learning experiences, and establishing goals to define advances in career or leadership development. The mentoring relationship serves to stimulate ideas, to challenge, and to push toward achievement of future goals. (Cahill & Payne, 2006, p. 696)

Mentoring: a way to introduce and incorporate new teachers into the professional, collaborative learning communities that can be found in schools across the nation (Feiman-Nemser, 2012).

Moderator: "A person charged with fostering the culture and the learning in an online dialogue or in a net-course discussion area" (Collison, Elbaum, Haavind, & Tinker, 2000).

Novice teacher: a teacher who is new to the profession.

Online learning forum: an internet-based, discussion interface that allows for continuous threads of discussion and/or real-time discussion.

Online mentoring: "an innovative way [to support . . .] continuing professional development" through an internet-based platform; also known as "e-mentoring, e-tutoring, cyber-mentoring, [. . .] e-coaching, e-moderating, etc." (Schichtel, 2009, p. 261).

Professional development: activities that are research-based, sustained over time, and support the improvement of a teacher's content knowledge and understanding of instructional strategies (NCLB, 2001).

Teacher induction: the first year (or more) of a teacher's career when he/she is intentionally supported to develop the strategies and skills necessary to become an effective teacher.

Veteran teacher: a teacher who has been in the teaching profession, gained experience, and proved him/herself to be competent.

Conclusion

In order to best prepare novice teachers for the students who enter their classrooms daily, this action research will first identified the characteristics of online learning that impact success in Chapter Two and then utilized them in an online teacher mentoring program described in Chapter Three. After the implementation, the program's overall effectiveness was qualitatively examined and reported in Chapter Four. Lastly, Chapter Five provided a discussion of the program's outcomes and what changes were made to the program the following year based on participant responses.

Chapter Two: The Literature Review

Overview

As of 2011 there were 3.2 million K-12 teachers in public education (NCEI, 2011, p. viii), and although many of the characteristics of the 'typical' teacher in the profession have remained fairly stagnant—female, white, university-trained, there are two demographics changing with significant speed: age and experience (NCEI). According to the National Center for Education Information, the number of teachers in the public school system who were under the age of 30 in 2011 was 22%, an increase of 11% since 2005 (p. 12). That fact may have contributed to the increase in inexperience also reported during that same 6-year time span. By 2011, 26% of teachers had fewer than five years' experience, an increase from 18% in 2005 (p. 19). Additionally, there has been a departure of experienced teachers who have been in the profession for 25 years or more, decreasing from 27% in 2005 to 17% in 2011 (p. 19).

This shift in profile of the American teacher may have many causes, but whatever the case may be, one fact remains persistent: All students deserve competent teachers who will guide them to fulfill their potential. After all, the success of teachers today affects the success of an entire generation of students (Wong, 2004). To that point, however, new teachers also need someone to guide them to fulfill their potential. This guidance of new teachers generally begins during new teacher induction.

Defining New Teacher Induction

Although the term induction has several denotations, there are two that, for this application, fit best. First, induction is the "formal installation in an office, benefice, or the like" (Induction, n.d.); quite literally, then, this can be interpreted in this context as

meaning the fitting of a teacher into a school building, much like a cog in a machine. In some respects, that is an adequate and truthful definition; however, being a teacher is a much more complex process than just being placed in a classroom with students; there are aspects of both art and science that must be considered when one sets forth to be not just a teacher, but rather an effective teacher.

Perhaps a second definition could provide more depth to the first: induction is "the act of inducing, bringing about, or causing" (Induction, n.d.). This definition brings about a more metaphorical state, one in which a teacher is not only fit into a building, but the teacher is intentionally supported by one or more veteran teacher(s) to develop the strategies and skills necessary to become an effective teacher. This type of induction is seen throughout a wide-range of industries in an effort to maximize employee retention and minimize the dollar amount spent on attracting and selecting employees (Farren, 2007).

The time period considered to be a teacher's induction actually begins during student teaching (Fry, 2010); during this time, pre-service teachers were given the opportunity to spend a long-term placement in one location and learn the ins-and-outs of a teacher's daily routine, everything from planning to implementing, time management to classroom management. Although this induction was important, the student teaching experience was still a simulation, an imitation of real teaching.

Induction as a new hire to a school district was the next step, and the time spent in an induction program varied depending on location and situation, some programs lasting as long as the first five years of practice (Piggot-Irvine, Aitken, Ritchie, Ferguson, & McGrath, 2009; Sosik, Lee, and Bouquillon, 2005). Missouri was one state that required a 5-year probationary period for all new teachers (Personnel, 2012), but school districts were allowed the freedom to design their own comprehensive induction processes (DESE, 2013b). In Missouri, the most intensive period of induction occurred during the first and second year of teaching during which time new teachers were required to be paired with mentor teachers (DESE, 2013a).

During this invaluable time, several events occurred at once. First, novice teachers were oriented to the school, district, and profession into which they were hired (MADESE, 2002). Many analogies exist to describe the experience of being a novice teacher, but perhaps Sabar (2004) described it best when comparing it to the experience of crisis that immigrants face when adjusting to life in a new country: "thousands of works of literature and art describe the hardships that immigrants experience and the price they pay to fulfill their dreams" (p. 146). Just as immigrants entering a new country, new teachers faced hardships and paid the price to fulfill their dreams of being effective educators. Before teaching, they looked forward to what would be when they stepped foot into the classroom. Many pre-service teachers believed in the fallacy that "basically anybody smart and willing can jump in and do [teaching]" (Brown, 2012, p. 26). However, after they begin the journey, they may begin to realize that what they had imagined may not be entirely accurate. Brown (2012) described this paradox as the life that exists between two beliefs: the setting of high expectations for all and, at the same time, the ability to meet students where they are, a channel of twists and turns that veteran teachers have learned to navigate. The novice teachers are then subject to concerns regarding their "illusions, hope, high expectations, despair, and a sense of loss

and grief that, for those who remain in the profession, are ultimately replaced by compromise, acceptance, and adjustment" (Fry, 2010, p. 1175).

What made this transition especially difficult is that new teachers do not know what they do not know and, at times, are forced to "mitigate the steep learning curve" on their own (Brown, 2012, p. 25; Feiman-Nemser, 2012). This new milieu often lays at two extremes, success and failure, and the new teacher alternates between the two. Unfortunately, many new teachers—especially young, new teachers—were not used to being wrong or endeavoring through failure, as Brown described:

I wasn't used to failure when I stepped into my first teaching job—and it stung. Part of persevering in this profession involves carrying a high threshold for bureaucratic blunders, miscarriages of justice, untimely copy machine malfunctions, misguided policies, betrayals of trust, and other epic travesties—as well as one's own mistakes. (2012, p. 27)

Further, novice teachers were also reportedly the victims of masked hazing, veteran teachers who did unto novice teachers what once was done to them. Often, schools "mistreat" new teachers by "ignoring their status as beginners" (Feiman-Nemser, 2012, p. 13); they were given "larger classes, more students with special needs or behavioral problems, extracurricular duties, and classrooms with fewer textbooks and equipment" (Feiman-Nemser, 2012, p. 13), all of which set up novice teachers for failure. This failure, which at times may have seemed insurmountable (Fry, 2010), may have led a once idealistic novice teacher to become demoralized. As Stella, a participant in a qualitative study conducted by Fry in 2007 (as cited in Fry, 2010), stated:

Everyone keeps telling me the first year is the hardest, and it better be because otherwise I don't want to do this. I was ready to quit the Tuesday after we started ... everything was tough and overwhelming. I know I student taught the first day of school, but it's different when it's all on you. I just need to get my feet under me, but they're just not there yet. (p. 1173)

At a later point during that same year, Stella reported, "Right now I just feel like I am not doing anything right" (Fry, 2010, p. 1181). Stella was not alone in her feelings; being overwhelmed was not an uncommon emotion reported by novice teachers (Fry, 2010), and often, this feeling led to a state of emotional exhaustion. As being overwhelmed continued, explained by Liston, Whitcomb, and Barton (2006), it could then lead to burnout and, ultimately, attrition; this added yet another dimension to this already complex scenario.

Each year teachers left the profession in droves; according to National Commission on Teaching and America's Future (2007), since 1996, attrition rates grew by 50% (Kain, 2011, p. 7), and in some urban districts, "the teacher dropout rate is actually higher than the student dropout rate" (Kain, para. 2). The time and money spent on induction to help novice teachers adjust, then, may have been considered essential to the success of a teacher (Fry, 2010; Piggot, et al., 2009).

Mentoring

Induction did not happen as a solitary process in a vacuum; as Brown (2012) stated, "It takes a village to raise a competent teacher" (p. 24). To support that reality, many programs assigned new hires a mentor (MADESE, 2002; Piggot-Irvine, et al., 2009; Fry, 2010; Feiman-Nemser, 2012) whose job it was to guide the novice through the first year(s) of teaching. Missouri required that all new teachers serve a probationary period of five years (Personnel, 2012), during which the first two were spent in a formal mentoring relationship (DESE, 2013a). Although mentoring existed in many forms for several decades within the United States, it was not until the mid-1980s that such programs became more representative in the teacher induction process (Feiman-Nemser, 2012). During the 1990s, upwards of 40% of new teachers reported mentoring relationships within their induction programs, and by 2008, that number had increased to 89.4% (Feiman-Nemser, 2012, p. 12), taking a dominant role in the teacher induction process (Feiman-Nemser; Grossman and Davis, 2012).

Throughout its tenure, mentoring has undergone some dramatic shifts in its expectations. Having begun as a "temporary bridge designed to ease the new teacher's entry into teaching" (Feiman-Nemser, 2012, p. 12), it has more recently, at the time of Feiman-Nemser's writing, been seen as a way to introduce and incorporate new teachers into the professional, collaborative learning communities that can be found in schools across the nation (Feiman-Nemser).

That is not to say, however, that mentoring was without its critics; both advocates and reformers alike conducted much research which seemed to support their causes. To impartially assess the effectiveness, or 'value added' of mentoring, Ingersoll and Kralik (2004) conducted a comprehensive, critical analysis of mentoring programs for the Education Commission of the States. Based on the studies reviewed, Ingersoll and Kralik (2004) did find empirical evidence supporting the use of teacher mentoring programs.

In the formed mentoring relationship, mentors had three functions: First, mentors provided psychosocial support, providing the necessary camaraderie that helped new teachers to feel accepted (Sosik, et al., 2005, p. 95). High levels of psychosocial support were more often found in informal (i.e. 'the buddy system') rather than formal mentoring relationships (Sosik, et al., 2005). However, because the nature of the teaching profession was to be helpful, whether to students or adults, new teachers often found the psychosocial support of informal mentoring within formal mentoring roles; after all, "all mentoring relationships are not created equal, and not all informal relationships are better than all formal relationships" (Ragins, 2002, p. 45).

Second, mentors provided role modeling of values and behaviors (Sosik, et al., 2005). Social learning theory posited that people learn skills best when they are able to see other accomplished individuals perform them first (Gopee, 2008). First theorized by Bandura, learning is a four-step process that begins through observation, is followed by mental retention and then motor reproduction, and is completed through reinforcement and eventually adoption of the skill (Gopee, 2008). The mentor served not only as model but also inherently as teacher when reinforcing the practiced skills.

Third, mentors provided career development. In this role, mentors "act as coaches to the protégé, protect the protégé from adverse organizational forces, provide challenging assignments, sponsor advancement, and foster positive exposure and visibility" (Sosik, et al., 2005, p. 96). In quantitative research conducted to examine mentoring within its organizational context, data gathered demonstrated that new teachers within more formal mentoring relationships reported higher levels of career development than those in informal mentoring relationships (Sosik, et al., 2005).

This confidential and non-evaluative support may take various forms, but it has been shown to be one of the most essential roles in the induction process (MADESE, 2002; Feiman-Nemser, 2012). After examining both anecdotal as well as empirical data, Grossman and Davis concluded that teachers who received mentoring within their induction process "generally have higher levels of job satisfaction, commitment, and retention within the profession as well as larger student achievement gains" (2012, p 55).

Forms of Mentoring

One of the most common methods of mentoring was an informal 'buddy system' in which a mentor offered advice for technical issues and support for emotional issues (Sosik, et al., 2005; Feiman-Nemser, 2012). Often, this type of relationship was temporary, and the initial heavy involvement of the mentor gradually decreased. This method, though popular, could also prove detrimental, producing negative results. When mentors who were not trained or who did not have clear expectations or goals were assigned a mentee, new teachers were not guaranteed to get the help they needed, thus creating a very haphazard system (Feiman-Nemser, 2012).

Other schools, realizing that "the mere presence of a mentor is not enough" (Grossman & Davis, 2012, p. 55), viewed mentoring more as individualized professional development combined with the necessary new teacher support; in this view, mentoring moved beyond just "feel-good support" and became an avenue for new teachers to develop their professional skills (Feiman-Nemser, 2012, p. 13). This growth, although important for all teachers throughout their teaching tenure, was especially critical for teachers with "limited preparation" and/or those who worked in high-poverty areas (Brown, 2012; Feiman-Nemser, 2012, p. 13) who may have faced challenges never broached within the college classroom. In this type of mentoring relationship, new teachers were paired with trained mentors who, ideally, were also familiar with the subject matter the new teacher was teaching (Grossman and Davis, 2012). The mentors took on the roles of co-thinkers and co-planners, improving the mentees' effectiveness by creating a balance between supporting their mentees and challenging them; mentors may even have provided difficult, analytical feedback and helped their mentees "reframe challenges, design and modify instruction and assessments, and analyze and promote student learning" (Feiman-Nemser, 2012, p. 13; Sosik, et al., 2005).

Challenges of Mentoring

When viewed as professional development, the mentoring of novice teachers could pose challenges, no matter how well-intentioned a program may have been, because "[g]ood mentoring is not accomplished easily" (Hargreaves & Fullan, 2000, p. 50). To begin, the idea that an expert in teaching would also be an expert in mentoring was false (Gardiner, 2009), so finding individuals to mentor novice teachers was always the first challenge. Mentors should be "models of excellent teaching practice" (Gardiner, 2009, p. 56), but they also needed to

understand the process of teacher development, demonstrate a variety of possible teaching styles, employ counseling and conflict resolution skills, articulate the language of practice and the complexities of teaching and learning, and provide alternative lenses for viewing the classroom context. (Gardiner, 2009, p. 57)

As such, mentors must be prepared and supported throughout their work; they may need to "unlearn embedded notions of mentoring and conceptualize mentoring in new ways" (Gardiner, 2009, p. 56) in order to be effective. There were also numerous other issues that surrounded mentoring that can either increase or decrease its rate of success including "the selection of mentors, how mentors and protégés are assigned or matched to each other, how formal or informal the relationship should be, how mentors should be rewarded for their contribution, and where the time for mentoring can be found" (Hargreaves & Fullan, 2000, p. 52).

To begin, a common challenge among many teachers was the seemingly insufficient amount of time within a school day; this held true for those found in mentoring relationships as well. Because of non-instructional duties or because of "needy students," finding time within the school day to meet was sometimes difficult (Feiman-Nemser, 2012, p. 14). Also, adding on one more items to the to-do list of a novice teacher could be very overwhelming. When it comes to how their time was spent, many novice teachers focused on meeting the demands of the ever-changing and complex world in which they were employed:

The breadth of teachers' classroom repertoires is expanding because of developments in the science of teaching (e.g., constructivism, cooperative learning, assessment strategies), the spread of information technologies, and the challenge of adapting instruction to the needs and learning styles of students from diverse backgrounds and with special needs. (Hargreaves & Fullan, 2000, p. 52)

Although this focus was necessary, if done in isolation, it may lead to an underdevelopment of professional skill or, worse yet, burnout. Many novice teachers are not prepared for the "physical and mental stress" experienced during the initial phases of one's teaching career when the "workload and the expectation that they simultaneously manage multiple demands" becomes a serious challenge (Chesley & Jordan, 2012, p. 42). This leads to yet another challenge of mentoring which was the emotional support required by novice teachers. Indeed, all teachers faced an increasing need for emotional support because teaching as a practice involved caring for and forming relationships with students (Hargreaves & Fullan, 2000). In the postmodern world of fractured families, financially disadvantaged families, and single-parented families, "this burden of caring is becoming even greater. Teachers are repeatedly putting their selves on the line" (Hargreaves & Fullan, 2000, p. 53). However, for novice teachers, this may be more of a threat because the emotional dimension of teaching may become lost within "the enthusiasm, passion, and dedication that make many teachers great" (Hargreaves & Fullan, 2000, p. 53); and although this emotion may energize one's teaching, it also has the ability to exhaust it (Hargreaves & Fullan, 2000).

While supporting novice teachers, mentors may also find themselves in conflicting roles including that of "coach, cheerleader, good listener, critical friend, assessor, evaluator, model, and many more" (Gardiner, 2009, p. 57). Whereas all of these roles may prove important throughout the mentoring experience, significant growth on the part of the student teacher will only occur when the mentors "conceive of their roles in educational terms, not collegial or emotional" (Gardiner, 2009, p. 57). This could prove more difficult for some mentors more than others; however, understanding the overall impact these roles may have had on the beginning teacher's development may have made their vital roles as model and educational co-inquirers clearer (Gardiner, 2009).

Lastly, the demographics of teaching were changing; teaching forces within countries around the world had undergone a "massive demographic renewal, with large

numbers of young teachers entering the profession for the first time" (Hargreaves & Fullan, 2000, p. 54). While this allowed for a "massive opportunity for innovation and renewal," it also meant that there were fewer experienced teachers to guide novices (Hargreaves & Fullan, 2000, p. 54). As found through research conducted by TNTP (2012), a nonprofit organization that strives to reduce educational inequity, only as many as 20% of teachers in districts were "irreplaceable", meaning they provided learning experiences that were engaging for students and in turn got high academic results from those students (p. 2). These "invaluable assets to their schools" (p. 2) were those who should be mentoring novice teachers.

Online Learning

There is little argument that the internet has proved to be a transformative technology. Perhaps in the future, even, historians will look to the genesis of the internet in "the same way we look back on the early days of the printing press, the steam engine, or the automobile. The [internet] has changed our lives" (Richardson, 2006, p. 9).

At the time of this writing, the roots of present-day online learning, seemingly a revolutionary concept due to the technological impetus the world has undergone, can be traced back to the distance learning which occurred in Europe during the Agrarian era of the 1800s (USDLA, 2010a). Soon thereafter within the United States, correspondence courses became a popular response to the nation's "egalitarian approach to education" (USDLA, 2010, p. 1). As the country transformed from agrarian to industrialized, the need for education became greater. Thirty-nine American universities offered distance-learning opportunities by 1930 (p. 6), some even including educational radio licenses to broadcast live courses (USDLA). At the time of this writing, as with today, new media

provided new means of educating the masses, and in 1951, WFIL-TV broadcast from Philadelphia two educational programs: *WFIL Studio Schoolhouse* and *The University of the Air*, both of which aired daily (Wilkerson, 2004).

As the dawn of the computer age emerged, the distance-learning landscape changed yet again. As early as the 1970s, both computer-assisted instruction (CAI) and computer-based training (CBT) were being utilized because of their ability to "support individualized instruction and high levels of interaction wrapped in a media rich learning environment" (USDLA, 2010, p. 7). However, in 1986, the British Open University raised the bar as it began a series of learning opportunities that included applications requiring students to participate in asynchronous text-based communication, an early form of communicating via the internet (The Open University, n.d., par. 23).

Although the U.S. government first introduced the technology, in 1989, Berners-Lee began the development of what people would commonly refer to as the World Wide Web; his vision was to create a collaborative medium, "a place where we [could] all meet and read and write" (Carvin, as cited in Richardson, 2006, p. 1), and to establish "the ability to share not just data but personal talents and experiences in new and powerful ways" (Richardson, 2006, p. 1). Almost overnight in 1993 with the origin of the Mosaic Web browser, "the Internet went from a text and numbers based research tool for the few to a colorful, graphical world of information for the masses" (Richardson, 2006, p. 1)

As the potential of this powerful learning tool began to spread, and bandwidth continued to increase, "a new generation of the computer-mediated instruction arrived" (USDLA, 2010, p. 15), and online learning began a burgeoning expansion (USDLA). What had been only at the post-secondary level quickly moved to the primary and secondary levels. The first virtual K-12 school launched from Eugene, Oregon, in 1999, and by the early 2000s, the term "e-learning" had become a standard part of educational vernacular (p. 15).

Today, "[w]e are entering a new interconnected, networked world where more and more people are gaining access to the Web and its continually growing body of knowledge" (Richardson, 2006, p. vii). The terms e-learning, online learning, and distance learning are used interchangeably. For the purpose of consistency, however, the term online learning will be used throughout this document. Additionally, although online learning was present at all learning levels (Flores, 2009), post-secondary online learning will be considered for the purposes of this document as its practices best reflect the nature of this research.

Being able to access the Internet and read what is there was not the highest level of attainment, though, when it came to learning. Instead, authentic learning will come from accessing the Internet, reading what is there, and then being "able to create and contribute content as well," and that is a "shift that requires us to think seriously and expansively about the way we currently teach students and deliver our curricula" (Richardson, 2006, p. vii).

As of 2011, 6.1 million students were enrolled in online learning courses in the United States. Further, it was projected by 2014 that up to 50% of post-secondary students will have taken at least one, if not more, online courses during their education (Christensen, Horn, Caldera, & Soares, 2011). In purpose, online learning courses were about "using available technologies and technology infrastructures to make *more effective* learning opportunities more accessible to all learners, whatever their age, location, or reason for learning" (Flores, 2009, p. 5). In definition, online learning courses tended to take on three distinct forms. The first were those that are *web-facilitated* and only used web-based technology to streamline traditional courses, such as posting a syllabus online or turning in an assignment through a drop-box or via email (Allen & Seamen, 2011). The second were those that were *blended* (also known as *hybrid*). These courses used a balance of face-to-face interaction and online content, allowing the courses to physically meet less often while still maintaining course composition, such as discussion boards and video lectures (Allen & Seamen). Lastly were the courses that were predominantly *online*, those in which 80% or more of the content was delivered via the Internet (Allen & Seamen); using this format, there may not have been face-to-face interaction or meetings between the course's instructor and its students. Whatever the form, online learning "will force us to rethink the way we communicate with our constituents, the way we deliver our curriculum, and the expectations we have of our students" (Richardson, 2006, p. 5).

Enrollment into these strictly online learning courses has "been growing substantially faster than overall higher education enrollments" (Allen & Seamen, 2011, p. 4; Globokar, 2010). Whereas the annual rate of growth for the overall student body of higher education has grown only at an austere 2%, the annual rate of growth for online courses was 18.3% (Allen & Seamen, p. 8).

Because of this "unbridled growth" (Allen & Seamen, 2011, p. 6), some have questioned whether online learning was as effective as a traditional classroom setting; but, as Allen and Seamen reported after reviewing a series of studies, "chief academic officers rate the learning outcomes for online education 'as good as or better' than those for face-to-face instruction" (Allen & Seamen, p. 5). Thus, it was clear that an online learning format produced results in higher education. Further, not only was online learning producing learning outcomes for students, it had also demonstrated "about the same" perceived student satisfaction as face-to-face meetings (Allen & Seamen, p. 9); and there was also an increasing consensus "that online learning can rival, or in some cases surpass, the levels of quality and student satisfaction found in brick-and-mortar campuses" (Globokar, 2010, p. 2).

When considering perceived student satisfaction, there were many contributing elements. One such element was the constructivist approach that was employed in discussion boards: "inquiry in dialogue emerges from a course design that enables [students] to construct their own knowledge, together" (Collison, et al., 2000, p. 3).

There was also a preference for the more convenient, flexible, and cost-effective method of learning (Moore, 2011; Allen & Seamen, 2011). Online learning could transcend geographic and social barriers to converge in a virtual space that enables [students] to benefit from the expertise of their instructors and the wealth of knowledge that comes from the diverse experiences of their classmates [...] The best part: You can partake in this educational revolution without leaving the comfort of your own home. (Globokar, 2010, p. ix)

Online learning allowed for manifold benefits for learners. First, online learning allowed for a flexibility not seen in the tradition classroom setting. Online learning could be accessed "from anywhere, at any time, and at any pace, in accordance with the individual needs of each student" (Flores, 2009, p. 5; Snyder, 2013; Debela, 2004). Being able to work at one's own pace in one's own context—that of jobs, children, and other responsibilities—for many students was critically important (Snyder, Debela).

Next, as stated previously, online learning was able to meet an individual's needs (Flores, 2009; OEDb, 2012); online learning was able to allow for a personalized learning experience (Flores). In a traditional classroom, there were as many ways to differentiate a lesson as there were students in the classroom; for even the best instructor, this would prove a challenge. However, with online learning, a student may work at his own pace (Flores, OEDb), choosing to inquire more about a topic he did not understand and choosing to inquire less about a topic he readily did understand.

Another individual need that must be considered when continuing one's education was cost. Online learning, at times, could prove to be a less expensive option than the traditional university or professional development classroom (OEDb, 2012). Beyond that, even if the courses cost the same, there was money saved in travel and, if having to leave work, time (Debela, 2004). Online learning had the advantage of being able to link innumerable people in assorted environments together to work collaboratively or hold discussions (Taylor, 2011).

Online learning was not just beneficial to students in schools and universities, though. The careers of many individuals required a level of life-long learning that heretofore had not been seen (Snyder, 2013); however, to complete continuing education, adults were unlikely, unwilling, and unable to take time off from their jobs, and that was where online learning could prove valuable (Snyder).

Depending on how the online learning experience was formatted, online learning could also promote 21st century skills "such as collaboration, civic literacy, global awareness and a constructivist pedagogy facilitating the use of higher order thinking such as creative problem solving" (Flores, 2009, p. 5). These skills were also important because they were similar to those that will be required in the workplace, especially as economies continued to expand and become more remote; collaboration among people hundreds or even thousands of miles apart required a level of online skill that had not yet been seen in the workplace (Flores).

Online Mentoring in Business

Mentoring occurred in the world of business quite extensively (Zey, 2011), although sometimes labeled differently. In fact, as the economic climate of the country continued to worsen, mentoring seemed to be increasing as a means of increasing employee development; mentoring skills were becoming "critical management competencies as organizations attempt to develop their employees using fewer financial, human, and training resources" (Oberstein, 2010, p. 54).

Online mentoring for employees, although uncommon in the world of education, was quite prevalent in the world of business. According to the United States Distance Learning Association,

Faced with 50 million American workers, corporate America is using distance learning, both internally and externally, for all aspects of training. Many major corporations save millions of dollars each year using distance learning to train employees more effectively and more efficiently than with conventional methods. (2010b, para. 6)

Online mentoring could be used to address many organization goals including "succession planning, training, strengthening of the corporate culture, and management development" (Zey, 2011). Additionally, it allowed for the customization of training for individuals, creating a learning process that was immediately applicable and one that did not require being away from the job (Oberstein, 2010, p. 54).

Within the business world, much like education, this mentoring had become vital in order to stop rapid turnover. For example, due to an increasing amount of pressure being placed upon registered nurses, up to 40% left their jobs within their first year of employment (H&HN, 2012). However, for those who had mentors, the probability of staying in the field, as well as being successful in the field, increased (Cahill & Payne, 2006).

Much like education, the world of business faced many systemic problems when it employed face-to-face mentoring (Carvin, & DiFlorio, 2011; Berg, 2009; Schichtel, 2009; Cayhill & Payne, 2006). Time played a crucial role in several factors. First, mentors opted out of volunteering due to a perceived lack of time and flexibility within their schedules; many also felt it was too much of a commitment in their already overloaded schedules (Berg, 2009; Schichtel, 2009; Cayhill & Payne). This, too, was seen in education: Rarely a day went by without more paperwork being added to a teacher's agenda; after all, "teachers are expected to meet the requirements of the federal government, State Department of Education, the local School Board, and the individual school's administration" (Bohac, 2012).

Without an abundance of mentors because of so many would-be mentors opting out, location also became a problem; isolated communities became underserved, and mentoring relationships were hard to establish, let alone maintain (Berg, 2009; Schichtel, 2009). In states such as Kansas in which there were an abundance of rural school districts, education faced the same problem because "there [were not] enough experienced teachers to go out and serve as mentors" (Sawchuk, 2013, p. 8).

Further, because of the evolving global climate in the world of business, employees were increasingly physically distant from one another (Zey, 2011). Even when mentors were available, problems with group social dynamics sometimes surfaced (Carvin, & DiFlorio, 2011); and, in an effort to connect with colleagues with the right answers to their questions, novice employees sometimes ended up with advice from people with the wrong answers (Carvin & DiFlorio).

But, as research has shown, mentors, and the relational support they provided, were vital (Carvin & DiFlorio, 2011; Schichtel, 2009). So, businesses and organizations began abandoning their status quo in order to meet the demand: "Countless businesses, healthcare agencies and professional associations [turned] to cyberspace as a way to offer flexibility and choice" (Cayhill & Payne, 2006, p. 695). The Academy of Medical-Surgical Nurses, for instance, introduced an online mentoring program in hopes of retaining more registered nurses in the field and to assist them to "develop strong relationships, learn to cope with challenges, and provide better patient care" (H&HN, 2012, p. 19). The American Nephrology Nurses' Association described its online program as an investment and stated it was the "responsibility of all registered nurses to step forward to help prepare for the future" (Cahill & Payne, p. 695).

The National Institute for Trial Advocacy also created a learning portal for online education as well as attorney mentoring in an effort to "train and mentor lawyers to be competent and ethical advocates of justice" (Business Wire, 2012, para. 2). Providing on-demand presentations, live classes via webcam, and discussion boards, NITA's goal was "to increase our distance learning capabilities to include even more online programming on different topics" in order to create "enduring online educational content" (Business Wire, para. 3 & 6).

Because of its effort to be a global enterprise "that relies on cross-border information-sharing and collaboration," IBM broke new ground when it democratized its online mentoring program in January, 2009, encouraging its employees to "reach across its global empire with the click of a button for advice on everything from preparing for a promotion to learning how to innovate" (Hamm, 2009, p. 57). Using a method unique to IBM, the company encouraged all of its employees who were interested to fill out an online profile that became part of a directory called Blue Pages (Hamm); according to IBM's reports, "in less than two months, 3,000 people [had] joined" (Hamm, p. 57). From there, employees could perform searches and ask questions or advice from people who met desired qualifications.

As reported by T+D (2011) magazine, a large, unnamed drug company employing over 10,000 people in 60 countries also found success with its online mentoring program. Although it had previously used face-to-face mentoring with reported success, the program became too cumbersome as the company expanded, and human resources personnel found themselves spending an exorbitant amount of time—up to 300 hours—matching mentors and mentee based on developmental needs and other relevant factors (Kauer, 2011). After mentor-mentee relationships were created, participants then attended an 8-hour orientation, and received, along with their 80-page "glossy program guide", a free t-shirt (p. 80). Although when surveyed employees rated their satisfaction with the program as being high, the time and money being spent on the back-end was deemed inefficient (Kauer).

After searching for possible solutions, the company decided on a technologybased, third-party vendor which allowed the application and matching process to be streamlined. It also allowed for more employee ownership by allowing the mentees to be able to choose from a provided list of "top three mentor matches" or "peruse additional mentor profiles"; mentors had choice in whether to accept or decline a mentorship as well as how many mentees they would agree to take on at a time (Kauer, 2011, p. 80). The company also streamlined its orientation into a 90-minute "virtual WebEx session" and replaced its 80-page guide with linked handouts that include "checklists of key mentoring activities; participants' first meeting tool; a dialogue prompt tool; and tips for distance mentoring success" (80).

The unnamed drug company reported that within its second year, its feedback was positive, that participants not only appreciated the easy-to-use format, but that "their overall satisfaction level is the same or better than with the previous program" (Kauer, 2011, p. 80). Within the business world, though, there is always an additional factor related to success: the bottom line. By making the change to online mentoring, the drug company reduced its total program cost from \$491 per participant down to \$114 per participant, including the necessary technology (para. 11).

The list of companies employing online mentoring companies was vast and includes giants such as Convergys, Bell Atlantic, Coca Cola, Nabisco, Intel, and Procter & Gamble (Frey, 2011). Besides saving these companies paper and money, online mentoring can maximize the capability of mentors. In person, mentoring was difficult to do with more than one mentee; further, if a poor match was made, the mentee may not have received the experience he/she deserves. With an online mentoring forum, though, 40 mentees could be paired with 10 capable mentors to guide them (Carvin & DiFlorio, 2011), and all involved could possibly benefit. Although individuals may have their own specific goals, the group could "share resources [...], raise questions [...], and participate in group activities" that lead to the betterment of all (Carvin & DiFloriop. 18).

Beyond addressing the aforementioned problems of time and location, online mentoring also provided additional benefits to employees whose companies chose to employ it. Although an online mentoring program may be synchronous (i.e. live), others are asynchronous (i.e. delayed), allowing employees to be more "reflective" and providing more opportunities to be "task-oriented" (Schichtel, 2009, p. 362; Zey, 2011). Online mentoring, at times, may also offer more anonymity, reducing intimidation and creating an environment of "greater privacy" in which "mentees may be more liable to address sensitive and personal concerns" (Schichtel, p. 362; Cahill & Payne, 2006). Adding to that, a noted decrease could be found in bias based on "age, race, nationality, or gender", allowing colleagues to base their relationships on who the person was rather than what the person was (Berg, 2009, para. 34).

General Electric (GE) served as an example of the paradigm shift that has occurred within numerous companies (Zey, 2011). Whereas earlier generations of mentoring were defined by the older, more seasoned veterans mentoring the younger, more novice mentees, GE "quickly realized that the wellspring of knowledge regarding computers and e-commerce existed among the younger workers" (Zey, p. 142). As such, the company's CEO, Welch, ordered "his top 6000 or so managers to reach down into their ranks for the younger 'Internet junkies' and permit these younger but more knowledgeable workers to become the older workers' mentors'' (Zey, p. 142).

It is important to note that although there were many advantages to online mentoring, disadvantages were also present. Privacy and a lack of intimidation could, for some, increase the likelihood for inappropriate commenting, harassment, or bullying; seeing that as a possibility, many companies apply filters and monitoring systems to their online mentoring to flag questionable content in order to "ensure the safety of both mentee and mentor" (Berg, 2009, para. 30). For those who were people-oriented, the lack of face-to-face, impromptu contact may have been a major drawback (Schichtel, 2009); online mentoring also did not allow for typical mentoring activities that required a physical presence, such as shadowing and networking (Zey, 2011). Technical problems may also have stymied communication, and lack of direct observation may have led to a disconnect between mentor and mentee (Schichtel).

Across the broad landscape of the business world, however, online mentoring has proved "effective", "boundaryless, egalitarian, and qualitatively different from face-toface mentoring" (Schichtel, 2009, p. 360-361). In a study conducted at Montclair State University, it was found that when measured for various metrics, online mentoring program participants—both mentors and mentees—fared better than those in a control group who were not participating (Zey, 2011). Both mentors and mentees were found likely to experience "a change in salary grade" and "enjoyed higher retention rates"; further, "mentees were five times more likely to receive a promotion than control group members" (Zey, p. 143). In somewhat of a role reversal, the business world seemed to have something to teach schools in regard to online mentoring.

Online Mentoring in Schools

A classroom, although often filled with talking, interacting human beings, is for a teacher an isolated place. Each day, a beginning teacher walks into his/her classroom and is expected to perform at a level equal to that of an experienced teacher. It can be hard, in a situation where high expectations exist, for a new teacher to turn to others for advice or help. If advice or help is not sought, collaboration does not occur, and it is this collaboration that can be crucial to the development of an effective teacher.

Some question whether collaboration can occur in online learning forums, and the answer is that, yes, it can. For example, experienced teachers who participated in building online learning courses for the Virtual High School were found to achieve a "degree of trust and safety [. . . and] a level of collaboration" the researchers had not previously seen; when asked about their capacity to collaborate in a brick-and-mortar school, none had ever "walk[ed] down the hall [. . .] to have peers review their lesson plans. Not one had ever done that" (Collison, et al., 2000, p. xv). When those same teachers were asked why they seemed more willing to collaborate in the online setting, one California teacher responded, "Because I can't hear anybody laughing at me here" (Collison, et al., p. xv).

The introduction of online learning communities has allowed for teachers to step out of isolation and into a world of collaboration; according to Richardson (2006), author of *Blogs, Wikis, Podcasts, and Other Powerful Web Tools for the Classroom,* "We are no longer limited to being independent readers or consumers of information [...] we can be collaborators in the creation of large storehouses of information. In the process, we can learn much about ourselves and our world" (p. 2). This "Society of Authorship," as Rushkoff termed it, "will be writing the human story, in real time, together, a vision that asks each of us to participate" (as cited in Richardson, 2006, p. 5).

This participatory community was not limited to teachers, either. As access increased for all people a "24/7 Learning" environment was created in which teachers could be connected to "not just other Science, or English or Social Studies teachers, [but] biochemists, scholars of Faulkner, and Civil War re-enactors" (Richardson, 2006, p. 128), all of whose knowledge could be learned from and then carried forward into the classroom to affect students.

Beyond just benefiting the teachers' development, online mentoring can also allow for teachers to become familiar with technologies that they will be obligated to teach to their students in advent of the Common Core State Standards (CCSS). With their push for technologically literate students, CCSS may encourage the inclusion of technology into all facets of learning; further, there is little telling what technologies future jobs will call for, so "it is crucial that our teachers and students learn to use these tools and others well if we want our kids to continue to compete for the best jobs and the best lives" (Richardson, 2006, p. vii).

Online Mentoring Best Practices

As previously noted, the demand for online learning continued to increase, thus, the demand for online instructors continued to increase. Unfortunately, the training these new online instructors received "has not kept pace with the demand for excellence" (Palloff & Pratt, 2011, p. xiii). Many instructors found that they were responsible for procuring their own instruction leading to "poorly constructed courses, high levels of student attrition [...], and continued allegations that online education is simply not as

rigorous as its face-to-face counterpart" (p. xiii). Consequently, there is need to explore the various indispensible elements that cause online learning, and thus online mentoring, to be successful.

To begin, in order for participants to benefit fully from their online experience, a community must be created within the forum, and that community is the result of purposeful community-building activities. A transformation must take place that leads participants through the initial "ice-breaking" stage to eventually reach a "reasoned discourse" (Collison, et al., 2000, p. 18). If an online community is constructed properly, the literal walls and distance between its members disappear. As one online learner described after an end-of-course, face-to-face meeting with her online learning classmates, "This was no awkward meeting of forty strangers coming together for the first time. This was a class reunion!" (as cited in Collison, et al., 2000, p. 7).

In order for community to be built, students must first trust in the presence of their instructor (Palloff & Pratt, 2011). In face-to-face classroom experiences, presence was easily established because students could see and hear and interact with an instructor; because students in an online setting cannot see or hear their instructor, effort must be made to establish a presence (Palloff & Pratt). This was done in various ways including maintaining both personal and professional information within the online learning forum, keeping a shared calendar for all involved, frequently updating students on class progress or changes through announcements, and sending personal emails to students when questions arise (Palloff & Pratt). What may begin as a social connection, as students come to understand that "the instructor is paying attention to them", later develops into

an understanding that the instructor is also paying attention to their learning needs (Palloff & Pratt, p. 7).

The intent of establishing presence was to "create a sense of connection with learners who are otherwise separated by time and space" (Palloff & Pratt, 2011, p. 8). Whether as an instructor or a student, presence was established through participation. In online courses taken for college-level credit, professors will often assign a specific number of posts that are required in order to earn a grade (Collison, et al., 2000, p. 78). However, one must then gauge the quality of participant interactions which then "becomes, of course, a more critical task," and an instructor must "check for appropriate use of the threaded nature of the dialogue as well as evidence of learning" (Collison, et al., p. 78), which was no easy task. Critical to building community and constructing knowledge was evidence within the online threads that participants were reading the postings of other community members (Collison, et al.). It was this back-and-forth between participants that allowed for "collaborative construction of knowledge" and "redefining the way we think about teaching and learning" (Richardson, 2006, p. 89). Although a minimum response level was often necessary to ensure discussion, many participants found that they post more than what was just required. In fact, "online educators who use discussion boards successfully estimate that their interaction with students can be as much as three times the interaction with face-to-face students, and that peer-to-peer interaction is even many times more than that" (Teaching Effectiveness Program, n.d., p. 1).

Community members might hesitate to participate in an online discussion board, though, if they lack trust in the other members and/or the moderator. This "intellectual

trust" was evidenced through participant willingness "to take intellectual risks, and to make corrections where needed so that no one if misinformed" (Collison, et al., 2000, p. 80). The challenge many moderators faced was forming this level of trust. Collison, et al., in the book Facilitating Online Learning: Effective Strategies for Moderators, suggested that moderators empowered members by stressing "open and clear communication", encouraging questions, and responding quickly to the needs of the members of the online community, thus showing the importance of each member (2000, p. 82). By setting a caring tone for all participants, moderators then created an environment in which participants were encouraged to show concern and support for each other (Collison, et al., 2000), thus building a more ideal online learning community in which "responsibility [...] is in some way shared by those interacting with it [...] and [l]earning is a continuous conversation among many participants" (Richardson, 2006, p. 90). Authors Palloff and Pratt (2011) in the text The Excellent Online Instructor described this as a change in the "balance of power" between instructors and students; instead of concretely directing students' learning, an online instructor must allow "students to take charge of their own learning process" (p. 6).

Accordingly, as instructors begin to act more as facilitators, students must then take more responsibility for their learning needs (Palloff & Pratt, 2011). Often, this can be accomplished through discussion boards. These discussion boards should be included and be moderated in a professional as well as a social context (Collison, et al., 2000, p. 5; Richardson, 2006): "Unlike traditional courses, which are often run in lecture format, the 'heart and soul' of most online classrooms is the discussion board, where all students are expected to make frequent contributions" (Globokar, 2010, p. 6).

Moderating Online Learning

Similar to a classroom, perhaps one of the most critical components of any online learning program was the discussion component; and, in order to have a successful discussion, there are several components to consider. First is the discussion's moderator. Defined by Collison, et al (2000), a moderator is a "person charged with fostering the culture and the learning in an online dialogue or in a net-course discussion area" (p. xiii). Just as a classroom teacher affects the level of achievement and satisfaction of students within his/her classroom (Helm, 2007; Goldrick, 2002), so, too, does a moderator, only in an online forum rather than a classroom. If a moderator is not skilled in promoting rich online conversation, "the potential of even the highest-quality online courses goes to waste" (Collison, et al., p. xvi).

Some skills translate between face-to-face communication and online communication. However, the format being what it is online, there were certain and necessary modifications that must be made. While a person who is a strong leader of face-to-face conversation has specific skills and strategies from which to draw, so, too, must a moderator of an online discussion embrace certain characteristics: "humility, the capacity to listen (read!) carefully, and the ability to respond without interjecting personal or professional opinions or values" (Collison, et al., 2000, p. xvi). It was also important when responding that moderators write responses that were specific, thus indicating that what students had written was being read (Palloff & Pratt, 2011).

In all face-to-face classroom discussions, teachers must employ wait time, a period of time after which they have asked a question and then remain quiet to allow for students to pull their thoughts together. In a classroom, this may be as little as a few seconds, but in online learning, wait time may be hours, if not days (Collison, et al., 2000, p. xvi). This, for some people, was quite advantageous; they appreciated "the opportunity to compose thoughtful, probing contributions" (Collison, et al., p. 2). Before responding, some participants may look back to texts, conduct web research, or make several attempts to clearly and concisely write their points. The discussion board format, if a required component of a course, also did not allow for anyone to be disengaged; the ability to hide or fake involvement was impossible.

Another face-to-face classroom technique that was often important was redirection, an exercise in which teachers guided the students in concluding their own answers based on what was said in the conversation. This technique required that the teacher captured "salient points while they are still fresh in the memories of the audience" (Collison, et al., 2000, p. xvi) and then guided the discussion in the direction needed to meet an objective. Effective moderators do this as well, and the discussion format of online learning, which was recorded as a permanent text, allows for the moderators to do this at their convenience. Further, "even connections that would be far too subtle to make in a real-time aural-based setting can be explored and deepened" (Collison, et al., p. xvii).

Challenges in Online Mentoring

With all of the benefits of online learning and all of the best practices put in place to facilitate constructivism within online learning, it can be easy to overlook that, as with any learning experiences, there may also be challenges. Globokar (2010), an author from Kaplan University who wrote a text to introduce students to online learning stated,

Students who have limited computer experience, or those who are frequently online but have never been a part of an online academic community, are likely to encounter hurdles of one kind or another as they first acclimate to their new surrounds." (p. xi)

To begin, online learners with little to no practice tended to experience a learning curve during which they may feel overwhelmed; after all, many online learners were not only responsible for their learning but also families, jobs, and other life pressures (Globokar, 2010). This prodigious learning curve—when students are learning about the navigation of the online classroom, how to turn in assignments, participating in discussion boards, etc.—may have caused some to immediately think that online learning was not for them. Online instructors played an important role at this juncture; it was necessary for the instructor to encourage the students through this transition, reassuring them that the feelings they were experiencing were "natural" and "simply a stage to work through on the way to achieving academic goals" (Globokar, p. 3). Helping students to understand that it will take time to integrate online learning into their other responsibilities was a must for an online instructor (Globokar).

It was also important for online instructors to provide students with various avenues for assistance if they were needed, ensuring that students understand "needing help is not indicative of failure; it is part of being human" (Globokar, 2010, p. 45). These forms of help could come in many modes including online tutorials, face-to-face meetings, school-sponsored help lines or help desks via phone, etc., all dependent on the institution offering the course.

Another obstacle some online learners faced, both new and experienced, was a sense of isolation (Globokar, 2010) because of the lack of face-to-face interaction between student and teacher as well as student and other students. To minimize this

effect, it was necessary for the instructor to ensure that his/her contact information including physical location and phone number, not just an email address—was available to students and that, if necessary, the instructor be willing to conference with a student. It was also the instructor's role to create opportunities for real interaction within the virtual world of online learning (Globokar), i.e. discussion boards, virtual cafes, blogs, podcasts, wikis, Skype, web conferencing, etc.

Feasibly, a contributing factor to a student's sense of isolation was the time actually spent working on an online course. One myth of online learning was that it takes less time than traditional education (Globokar, 2010). Although there was an element of time saved—online courses tended to be logistically easier in that one could work on them from home and save travel time—online courses were not designed to be less rigorous than traditional coursework (Globokar). In fact, possibly because of the "high expectations for active participation," some online students report that they actually spent more time, not less, working on their online courses; after all, a "quality education entails not only exposure to new information but also taking the time to critically examine that information and ultimately draw meaningful conclusions regarding what has been learned" (Globokar, p. 8).

The flexibility online courses allow can also serve as an obstacle for some learners. For example, if a student knows that he must complete a reading of several pages, formulate a response to that reading, and then post to questions posed on a discussion board, he might put it off until the evening before it is due thinking he will have plenty of time to complete it; however, when he returns home that evening, he finds that he has a sick child and several other responsibilities that take him away from his online work. In this case, failure to realize the amount of time the work would require may have caused a failure to complete the work. It's crucial that online learners "realize that having more flexibility in structuring [their] time is not the same as actually taking less of [their] time" (Globokar, 2010, p. 9).

Further, some online learners have mistaken online learning for a self-paced activity (Globokar, 2010). Although it sometimes could be, much like an independent study, many more online courses were quite structured, requiring students to login a specified number of times per week, post on a discussion board a required minimum number of times, and submit assignments on particular due dates (Globokar). By keeping a course on-pace and keeping students together in their learning, an online instructor facilitates the constructing of their own knowledge; in many cases, "as students focus on the same discussion questions or embark on the same assignment sin tandem," they can learn from each other as much as they can learn from the instructor and/or text (Globokar, p. 9).

Conclusion

Perhaps the United States Distance Learning Association stated it best: "Change is inevitable, and tomorrow will bring newer and better technologies, accompanied by a new set of challenges, but the goal is the same as it was first applied 120 years ago: Provide increased access to learning opportunities through distance learning" (2010a, para. '2008'). That is precisely the goal of this action research: to provide a more effective learning opportunity to new teachers who will, in turn, provide a better learning opportunity for their own students. In Chapter Three, the best practices found within this literature review will be discussed as they are applied to an online learning forum to provide that new learning opportunity.

Chapter Three: Methodology

Overview

Online learning formats produced results in higher education; further, the enrollments indicated that adults were showing a preference for the more convenient, flexible, and cost-effective method (Moore, 2011; Allen & Seamen, 2011). Because of these two realities, it was my opinion that an online learning format may provide further benefits in the area of new teacher mentoring and professional development. The purpose of this research was to measure the effectiveness of using this format in the area of teacher mentoring.

Qualitative Action Research

This research identified the characteristics of online learning that led to success and then, through action research, utilized those characteristics in an online teacher mentoring program in order to qualitatively measure the program's overall effectiveness. The questions guiding this research were as follows:

- 1. What, if any, are the effects of including an online learning forum in one school district to modify the traditional teacher mentoring program?
- 2. What is the administrator's role in the creation and facilitation of an online learning forum for teacher mentoring?
- 3. What is the experience of the mentee in an online mentoring program?

Qualitative research, as defined by Fraenkel, et al. (2012), was appropriate for this study because it provided a more holistic view of what was happening in a situation; it "investigate[d] the quality of relationships, activities, situations, or materials" rather than "comparing the effects of a particular treatment (as in experimental research)" (p. 426).

Fraenkel, et al. also provided five general characteristics of qualitative research, all five of which fit this particular study: First, the "natural setting is the direct source of data, and the researcher is the key instrument in qualitative research" (p. 426); in this research, the natural setting was within an online learning forum taking place in a suburban middle school setting. This context is important because "activities can best be understood in the actual settings in which they occur," and, "human behavior is vastly influenced by particular settings" (p. 427); pertinent to this research is the particular setting of the online learning forum and whether it meets the needs of the new teacher participants.

Second, "[q]ualitative data are collected in the form of words or pictures rather than numbers" (Fraenkel, et al., 2012, p. 427). The data for this research included interview transcripts, personal comments, email transcripts, memos, and official records of comments made within the online learning discussion boards, and "anything else that can convey the actual words or actions of people" (p. 427).

Third, "[q]ualitative researchers are concerned with process as well as product" (Fraenkel, et al., 2012, p. 427). The focus of this research was on "*how* things occur" (p. 427), meaning how people participate in the online learning forum, communicate with each other, and reflect on their own practices as well as the practices of others. It also considered the value they placed on what, in the end, occurred within the online format and what, if any, effect it had on their teaching and their student achievement.

Fourth, "[q]ualitative researchers tend to analyze their data inductively" (Fraenkel, et al., 2012, p. 427), meaning that no official hypothesis is stated at the forefront of the research, that the research is exploratory in nature. What occurred during the time spent within the online learning forum could not be predicted; there was design flexibility that would not be permitted in quantitative research. As Bogdan and Biklen (n.d.) suggested, "qualitative researchers are not putting together a puzzle whose picture they already know. They are constructing a picture that takes shape as they collect and examine the parts" (as cited in Fraenkel, et al., 2012, p. 427). Going into the research, I had a planned path, but the destination to which that path led was virtually unknown.

Lastly, "[h]ow people make sense out of their lives is a major concern to qualitative researchers" (Fraenkel, et al., 2012, p. 427); for me, it was very important to find out and understand what the participants were thinking throughout, and at the completion of, the online learning process. The participants' "[a]ssumptions, motives, reasons, goals, and values" (p. 427) were all of interest and helped guide the online learning process throughout.

Action Research

Ultimately, the goal of this study was to affect change; to discover a "way of working better rather than doing more of the same only harder" (Herr & Anderson, 2005, p. 75) by applying best practices of mentoring in an online learning forum and determining the effectiveness—based on the comments, opinions, etc. of participants—of those practices within the format. The specific methodology being applied was action research, which, defined by Fraenkel, et al. (2012), is research with the "purpose of solving a problem or obtaining information in order to inform local practice" (p. 589). Thus, the focus was redirected from the theoretical to the present, and those involved in the research could exhibit influence over the desired change (Ferrance, 2000).

The roots of action research trace to the philosophies of Marx, Gramsci, and Freire, and action research itself was introduced to the United States during the early 1940s by the German social psychologist Lewin (Grogan, Donaldson, & Simmons, 2007; Ferrance, 2000). Although his notion of action research called only for a short-term action or intervention, action research, over time, has broadened and developed into numerous varieties specific to different fields of study (Grogan, et al., 2007).

Although the underpinnings of action research are different than those of traditional academic research, "it is no less rigorous or scientific in its approach" (Grogan, et al., 2007, p. 3). Further, there are particular advantages specific to action research not found in other methodologies. First, teachers, administrators, counselors, or others who are vested in the research site and its students carry out the action research process; they are empowered to examine their school and select a problem that requires a solution, one that reflects their own interests or concerns (Grogan, et al.; Ferrance, 2000; Herr & Anderson, 2005). This organic process "helps to confer relevance and validity" and keep the academic research from being "disconnected from the daily lives of educators" (Ferrance, p. 13).

Afterward, the vested participant(s) "decide on the research agenda, enact the research, evaluate the process, and [. . .] become beneficiaries of the outcome" (Grogan, et al., 2007, p. 3). The participatory nature of action research leads to a "strong sense of ownership" (Grogan, et al., p. 4) as well as increasing the "utility and effectiveness" of the results for the practitioner(s) (Grogan, et al., p. 3; Ferrance, 2000). Further, the action research process "creates new patterns of collegiality, communication, and sharing," ultimately leading to "contributions to the body of knowledge about teaching and learning" (Ferrance, p. 15).

Although educational researchers in the United States were "slow to embrace action research methodologies", its focus on "working with real problems in social systems" and numerous other advantages make it perfect for the reflective, democratic process needed to "find answers to important questions or to foster change" in schools (Grogan, et al., 2007, p. 4). The way this is accomplished is cyclical in nature (Ferrance, 2000): the researcher(s) "will begin a cycle of posing questions, gathering data, reflection, and deciding on a course of actions" (Ferrance, p. 2), ultimately allowing "perspective through systematic inquiry" (Herr & Anderson, 2005, p. 4). When the course of action creates a change in the environment, the new set of circumstances consequently created new problems to be questioned, and so the cycle continues (Ferrance). Generally, five phases of inquiry are used to describe this cyclical process: "1) Identification of problem area, 2) Collection and organization of data, 3) Interpretation of data, 4) Action based on data, and 5) Reflection" (Ferrance, p. 9).

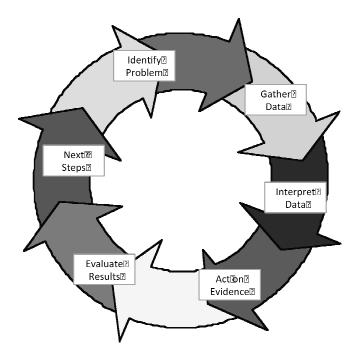


Figure 1. Action Research Cycle

The analysis of and reflection on data may yield additional questions to explore. Figure 1 portrays this sixth phase during which the additional questions are addressed and

plans made for further "improvements, revisions, and next steps" (Ferrance, 2000, p. 13).

The Research Site

The research for this study was completed in a Midwest suburban school district, home to roughly 41,000 residents (OSEDA, 2010). The population is 73% Caucasian, 15.6% African American, 4.3% Asian, 5.0% Hispanic, and 2.1% are listed as Other (OSEDA, 2010). People within this district were 64.8% employed. The industries in which they were mainly employed are education services, health care, and social assistance (16.9%); retail trade (13.5%); manufacturing (11.6%); and arts, entertainment and recreation, accommodation, and food services (10.6%) (Proximity, 2009). The per capita income of residents within the district was approximately \$29,000; however, 7% of families with children younger than 18 years of age are reported as being below the poverty level (Proximity, 2009). When looking at single-parent (mother-only) households, the numbers increased to 15.3% and 56.1% respectively (Proximity, 2009).

From this population, the district educated roughly 5,600 students per school year throughout 11 schools (DESE, 2012b). A fully accredited district, teachers served students from early childhood through 12th grade. The students served, however, were not representative of the general district population: 56.3% were Caucasian, 31.2% were African American, and 7.1% were Hispanic (DESE, 2012a). Additionally, 44.1% of all students were eligible for Free/Reduced lunch programs (DESE, 2012a).

The school site, a middle school housing grades six through eight, was led by one principal and two assistant principals, one of whom is the researcher responsible for this action research. During the 2012-2013 school year, the school enrolled 610 students; however, at the completion of the dissertation, the population had decreased to about 600 students. The middle school in which this research occurred further differs demographically from the district and the community: about 49% were Caucasian, 42% were African American, 6% were Hispanic, and 2% were Asian. Beyond having a more diverse population, the research site also had a higher percentage of students receiving Free/Reduced status: about 60% (DESE, 2012b).

Participants

Teaching the middle school students were 55 certified staff members, four of whom were new hires during the summer of 2012 for the 2012-2013 school year ((District Information, 2011). The four new teachers were the primary participants of this research. Two of the new hires, one male and one female, were first-time teachers bringing with them little experience beyond their practicums and student teaching. Another of the participants, female, had long-term subbing experience, and the final participant, female, had taught for three years at an inner-city charter school.

Developing the Intervention

District-Level Mentoring Program.

After being hired, the participants were required to participate in a mentoring program for a minimum of two years (DESE, 2013a). Within the distinct in which the action research occurred, two levels of new teacher mentoring, district- and school-based,

were required. The current district-level program had been in place for several years, and its mission had been clearly stated:

Our comprehensive Mentor Program provides the structure to support, encourage, and guide new teachers in the School District. Assisting new teachers in analysis of teaching practice and effects on student learning are key elements. In addition, this collaborative program offers opportunities for staff members to grow in a professional, personal, collegial, and non-judgmental environment. This program will bring new energy and ideas into the classroom, improve school climate, and offer a secure, friendly, and welcoming environment to new teachers. (District Mentoring Handbook, 2012)

Beyond the mission, the program's three goals were also listed within the handbook:

- 1. Establish a support system that promotes confidence, optimism, and job satisfaction among new teachers.
- 2. Foster an arena for collegial discussions among new and experienced teachers.
- Enhance student learning by improving the effectiveness of new teachers.
 (District Mentoring Handbook, 2012)

Like many current educational programs, the research site's district mentoring program and all of its descriptions and handouts were given to participants in a white, 2.5" binder. A positive aspect of this method was that all of the information a new hire may need from the district was in one place, organized by topic, and separated by tabs. For example, on the second page of the district binder was an outline that listed what the mentees must do throughout their first and second years of the program. This provided them a general outline of what the program entailed. Later, there was also a more detailed calendar that outlined for mentors and mentees the dates of meetings, topics to discuss, etc. For example, August's topic was "Creating a Positive Learning Environment", and in October, mentors and mentees were required to discuss parentteacher conferences; these were both time-appropriate topics because August was the month during which a learning environment was established, and October was the month parent-teacher conferences occur.

The pairing process in the study district was at the discretion of the building-level principal. At the study school, the principal invited veteran teachers who were involved in the school and known to be good teachers as well as positive role models for their colleagues to take part in the mentor-mentee relationships. The principal then paired each mentee with a mentor who was ideally, but not strictly, within the same department and grade level. The pair then completed the district-provided assignments and discussions by setting their own meeting times and agendas.

For each mentoring meeting, paperwork was provided so the mentee could take notes and list actions he or she might take to fulfill the month's topic. Additionally, there was also space for reflection on those actions. The mentees were then required to turn in the logs to Central Office on assigned dates throughout the year, adding an element of accountability to the system.

A drawback to the system, however, was it is just one more binder, one of many the new teachers would receive at the beginning of a school year. New teachers, in general, are overwhelmed with papers and handouts, and many of those, although they may contain pertinent and helpful information, get placed aside to read later, and later may never arrive. Further, my own experience with a poor mentor reminded me that although the district's mentoring program seemed organized and well-intentioned, if the pairing of mentor and mentee was not suitable, all of the paperwork, discussion, and orderliness of the program would reduce down to little more than busy-work, just one more task taking a teacher's attention away from doing all that was necessary to help students achieve. With the online program, however, even if the mentoring pairing was not ideal, there may be a greater opportunity to build relationships with other experienced teachers.

It occurred to me after looking at the provided calendars that the same districtprovided information could be presented in smaller segments instead of one giant binder, and that, perhaps, if given out piecemeal, teachers would be more likely to read and consider the information than if it were given out in one lump form. Beyond that, if all new hires had access to the expertise and various personalities of a panel of veteran teachers, they may benefit more than having just the one-on-one mentoring relationship.

Developing the online program. It was that awareness, combined with the district's mentoring mission and goals and my lead principal's decision to assign me to building-level, new teacher training, that caused me to generate ideas of ways to inform teachers of district and school information as well as teaching strategies and professional development opportunities using a more germane and responsive method. Having also had personal experience taking as well as teaching online courses, I determined that a more efficient and effective way of mentoring teachers may be found through an online learning forum.

Although the School District had its own online learning platform, it had been the district's policy that new teachers did not receive their computers and technology training

until the fourth day of their orientation meetings in August. To circumvent this issue and allow new teachers to access mentoring and professional development immediately after being hired—whether that be in the early spring or late summer—I chose to use an online learning platform other than what is district provided.

Online program description. After researching online learning platforms, the forum I chose to use as a model for the New Teacher Mentoring program is called Class.io. It was a free, online format for teaching online courses. In theory, it was set up so that teachers could upload their course content and have 'anywhere-anytime' communications with their students. For the purposes of this research, though, I served as the 'teacher' and the new teachers served as the 'students'. In this way, we were able to have an online forum, but it also introduced new teachers to a web-based technology, which the teachers may later choose to use in their own classrooms. By experiencing Class.io through the student-side of the program, the teachers would be better prepared to create their own teacher-sides.

The further benefits of this platform over others I considered were as follows: First, the format was integrated with Google Apps, an innovative program 60% of universities in the U.S. were already using to host their email (Weintraub, 2010). Because of the affiliation, Google also provided online support for teacher- and studentusers (Class.io). There were also additional Google functions that new teachers could find helpful such as the calendar function, docs, surveys, spreadsheets, etc. through Google apps and Google docs (Class.io). Class.io accounts could also be linked to Facebook accounts, allowing any activities that occurred to be announced via a person's Facebook News Feed. This particular feature was appealing because it would help avoid the 'just one more thing to do/check' reaction that some teachers—experienced and new—may have when using an online learning forum.

Students, in this case new teachers, could easily sign up for the forum using an existing G-mail account, signing up for a G-mail account, or by using an email account from another platform, i.e. the school district's own email system. Also, since Class.io was completely web-based, there was no software that needed to be purchased or downloaded.

The Class.io forum also provided for privacy; for the purposes of this action research, the need to keep the group controlled was a necessity in order to be able to validate effectiveness. Thus, the New Teacher Mentoring Program was set up to allow users by 'teacher' approval only. The program also afforded the ability to create and access multiple courses by one 'teacher', meaning if a particular group of 'students' wanted to branch off and study something independently, the 'teacher' could create another course so as to not confuse the other boards. Class.io also allowed the 'students' themselves to create their own courses, thus encouraging independence and continuous learning.

Role of the Researcher

The role of the researcher was quite involved in this action research. Being participatory in nature, I "work[ed] *with* and *for* the research subjects" (Charles & Ward, 2007, p. 2). The participants and I worked collaboratively to plan, act, observe, and reflect upon the effects of the online mentoring forum in regard to the participants' development.

My specific role within the forum was to, based on survey data collected, provide resources and information for teachers as well as maintain discussion board conversations. Because of contractual agreements, the new teachers' mentor teachers could not be required to participate in the forum; they were, however, asked to participate. As such, I was the only regular mentor who participated and was able to answer questions and offer advice.

Data Collection Methods

Several types of data were collected and synthesized in order to determine what, if any, effects an online learning forum had on enhancing a traditional teacher mentoring program as well as individual teachers' professional growth. To begin, at our initial meeting to discuss the online learning forum was face-to-face, and at that time, I explained the method and procedures to be used as well as answered any questions posed by the participants. I also provided the new teachers with a survey to gauge their initial level of comfort in specific educational areas, such as classroom management and parent communication. A copy of the survey, *Beginning Teacher's Views on Practice*, is included in Appendix A. From the data that was collected, topics of discussion were posted on the online learning forum; both participants and I were allowed to add content to the different discussion boards.

The same survey was given at the semester (the half-way mark) to, again, gauge the participants' level of comfort in the same educational areas as before. This data was used as a comparison, but it was also used to guide further development of the online forum. At the end of the second semester, the survey was given a third time to use as comparison data. Toward the end of the second semester, interviews were conducted wherein specific questions were asked to address the participants' experiences within the forum. An unbiased, third party interviewer conducted the interviews in one of the school's main office conference rooms throughout a course of several afternoons according to the participants' availabilities. Permission to audio record the interview was asked of each participant; a copy of the consent form is included in Appendix B.

A series of 13 questions with possible follow-up questions was then asked; a copy of the questions is included in Appendix C. The questions were developed based on research of online learning best practices. Participants were encouraged to be honest and candid in their comments. After the interviews were completed, the third party interviewer delivered the recordings to me; I transcribed each interview into a written format.

Along with the surveys and interviews, additional qualitative data were considered. Throughout the time spent using the online forum, individual participants posted their thoughts, concerns, and reactions to other participants' posts. This data, along with any emails regarding the online forum or the teacher mentoring process at the building level, were also analyzed and included in the results.

Research Ethics

Prior to beginning my research, I asked for and was granted permission by both the school district and the middle school to undertake the project and collect data. After the data was collected, it was sensitively handled. Numbers replaced all names used throughout the data. I was the only person with access to the original information. All electronic data was password protected and kept on my personal computer. All hard copies of surveys and interview transcripts were kept in a locked drawer within my personal desk.

Analysis Procedures

Once the data were collected, the analysis process began. Although there were a number of steps in the analysis process, the process was fluid, necessitating that the researcher move back and forth between the steps (Taylor-Powell & Renner, 2003). To begin, I familiarized myself with the data by listening to and making observations about the recorded interviews. Next, I read and re-read the text several times to better understand it and consider its quality and value it added to the research.

Next, I focused the analysis by examining how individuals responded to each question posed; this helped me "identify consistencies and differences" in participant responses (Taylor-Powell & Renner, 2003, p. 2). Once consistencies and differences were identified, I then categorized the information through the coding process in order to "bring meaning to the words before [the researcher]" (Taylor-Powell & Renner, 2003, p. 2). The themes that emerged were then grouped into coherent categories. Once the categories were established, they served to inform the researcher on the effectiveness of including the forum in the new teacher mentoring process and elucidate on the experience of a new teacher throughout the mentoring process.

Verification of Interpretations

Because all researchers carry their own biases, the perspective of a researcher can have drastic effects on the perceptions interpreted throughout qualitative research (Fraenkel, et al., 2012). To ensure validity and reliability within this research, several methods were used during the analysis procedures. After the interview data were collected, the content was coded and then analyzed for emergent themes. When the themes were distinguished and described in detail, one or more of the action research participants were asked to review the report's accuracy; this is referred to by Fraenkel, et al. (2012) as "member checking" (p. 458). Additionally, one or more individuals outside of the action research were asked to review and evaluate the report's findings; Fraenkel, et al. refer to this as "an external audit" (p. 458). Lastly, any conclusions drawn "based on one's understanding of the situation being observed" (p. 459) was acted upon; changes to the online forum occurred as needed throughout the school year as well as at the completion of the school year in preparation for the next. If the conclusions drawn by the researcher were wrong, it would be discovered soon after implementing any changes (Fraenkel, et al.).

Conclusion

Based on the best practices learned from the literature review conducted and described in Chapter Two, and working from the understanding that an online learning format may provide further benefits in the area of new teacher mentoring and professional development, this chapter presented the online teacher mentoring program that was used within one Midwestern suburban school district. Four teachers participated in the program's implementation and data were collected by the researcher; it will be further presented and analyzed in Chapter Four. The qualitative information provided by the participants during the action research allowed the researcher to make appropriate changes for the second year's implementation discussed in Chapter Five.

Chapter Four: Results

Overview

The purpose of this study was to qualitatively assess the process of combining online teaching with teacher mentoring. The research first identified the characteristics of online learning that led to success and then utilized those characteristics in an online teacher mentoring program. The questions that guided this research were as follows:

- 1. What, if any, are the effects of including an online learning forum in one school district to modify the traditional teacher mentoring program?
- 2. What is the administrator's role in the creation and facilitation of an online learning forum for teacher mentoring?
- 3. What is the experience of the mentee in an online mentoring program?

To answer the first and third questions, two processes were used. First, a survey was given to all participants at the beginning, middle, and ending of the online program participation. Second, in-depth interviews were administered to the participants of the online forum and, after a qualitative analysis of those interviews, themes were determined and described in detail. To ensure the accuracy and validity of the researcher's conclusions, two forum participants were asked to review the findings. Lastly, based on the researcher's conclusions, changes were made to the following year's building-level teacher mentoring program, and those changes will be discussed in this chapter. To answer the second question, the researcher reported on her reflections made prior to, throughout, and after the online mentoring process.

Survey Data Results

The Beginning Teachers Views on Practice questionnaire results were examined initially to guide me as the facilitator in the creation of the forum. If results showed that teachers generally felt, 'I have no idea how to do this' (Beginning Teacher's Views on Practice Questionnaire, 2013), that would be an area I would focus on extensively, providing as many possible resources as I could gather. The questionnaire was repeated again at the end of first semester and then again at the end of the school year. Here, the data is reviewed as a reflection of what beginning teachers felt they gained and in which areas they were affected. Quotes included in the data are cited with a pseudonym to protect the identity of the contributing participant.

On the questionnaire conducted at the beginning of the 2012-2013 school year (Appendix A), there were no level of comforts indicated as either (1) 'I have no idea how to do this', or (2) 'Someone has talked to me about this, but I don't really know how to do it', on any of the described actions. Looking at the remaining data, I focused on those described actions with averages of 3.5 or less. Using that as a starting point, there were 12 described actions that the new teachers indicated as necessary for professional development.

Table 1 displays the initial data gathered in September 2012. Available responses to the survey were: (1) I have no idea how to do this, (2) Someone has talked to me about this, but I don't really know how to do it, (3) I know about this, but I still have questions (4) I feel I have a good grasp of this concept, (5) I believe I could teach others about this concept.

Table 1.

Question	Participant 1	Participant 2	Participant 3	Participant 4	Average	Total	Description
1	4	4	4	4	4.00	12	establishing individual rapport with students
2	4	4	3	4	3.67	11	identifying individual differences among students
3	4	4	4	4	4.00	12	developing caring relationships with my students
4	4	4	3	4	3.67	11	motivating students to do their best
5	4	3.5	3	4	3.50	10.5	serving as an advocate for students
6	4	4	4	4	4.00	12	using the curriculum to guide my planning/instruction
7	4	4	4	4	4.00	12	planning daily lessons
8	4	4	4	4	4.00	12	planning units of learning
9	4	4	3	4	3.67	11	planning summative assessments of learning
10	3	4	4	4	4.00	12	sequencing activities within a lesson/unit
11	4	4	4	4	4.00	12	using a variety of instructional methods
12	4	3.5	4	3	3.50	10.5	adjusting for individual differences among students
13	4	4	4	4	4.00	12	pacing my lessons to avoid student boredom or frustration
14	4	3.5	3	4	3.50	10.5	using technology to help students achieve
15	4	4	4	4	4.00	12	maintaining student engagement
16	4	3.5	3	4	3.50	10.5	differentiating instruction
17	4	4	4	4	4.00	12	maintaining high expectations for all students
18	3	4	4	4	4.00	12	connecting the content to prior knowledge
19	4	4	4	4	4.00	12	connecting the content to read world experiences
20	4	4	4	3	3.67	11	using various learning modalities to engage students
21	3	3.5	3	4	3.50	10.5	teaching students with special educational needs
22	4	3.5	4	4	3.83	11.5	adjusting a lesson in the midst of it to meet student need
23	4	4	3	4	3.67	11	teaching reading within the context of my subject
24	4	4	3	4	3.67	11	teaching writing within the context of my subject
							continued

Views on Practice Questionnaire, initial data, September 2012

continued

Tab	le 1.	Conti	nued				
25	4	3.5	3	4	3.50	10.5	using questions and discussion techniques
26	4	4	4	4	4.00	12	formatively assessing student learning
27	4	4	3	4	3.67	11	summatively assessing student learning
28	4	4	3	3	3.33	10	creating authentic assessments
29	4	4	3	3	3.33	10	maintaining accurate records of learning
30	4	4	4	4	4.00	12	managing class time
31	4	4	4	4	4.00	12	managing classroom behaviors
32	3	4	4	4	4.00	12	establishing class routines
33	3	3.5	3	4	3.50	10.5	communicating with parents/families
34	3.5	3.5	3	4	3.50	10.5	establishing positive relationships with parents/families
35	4	4	4	4	4.00	12	reflecting on my own performance
36	4	4	4	4	4.00	12	reflecting on lessons taught
37	4	4	4	4	4.00	12	approaching and working with colleagues
38	4	3	3	4	3.33	10	approaching and working with administrators
39	4	4	4	4	4.00	12	approaching and working with other staff
40	4	4	4	4	4.00	12	collaborating with colleagues
41	4	4	4	4	4.00	12	reflecting on my performance with colleagues
42	4	4	4	4	4.00	12	exchanging ideas with people with whom I work
43	4	4	4	5	4.33	13	engaging in reflective conversation with my mentor
44	4	4	4	5	4.33	13	going to my mentor with problems/issues as they occur
45	3	4	4	4	4.00	12	organizing myself and my resources in order to be efficient and effective
46	4	3	3	4	3.33	10	managing the demands of my teaching life along with my personal life
47	3	3	4	4	3.67	11	general school procedures (attendance, acquiring supplies, required forms)
48	4	4	4	4	4.00	12	using technology to communicate effectively
49	3	3.5	4	4	3.83	11.5	utilizing online learning forums
50	4.5	4	4	5	4.33	13	evaluating the credibility of online sources of information
51	4.5	4	4	5	4.33	13	accessing other people's digital spaces (i.e. Facebook, Twitter, Class.io, etc.)
52	4.5	4	4	5	4.33	13	creating my own digital spaces (i.e. Facebook, Twitter, Class.io, etc.)

Table 1. Continued

Of the twelve initial described actions that averaged a 3.5 or lower when all responses were considered (5, 12, 14, 16, 21, 25, 28, 29, 33, 34, 38, 46), at least one of the beginning teachers indicated growth in five areas when given the questionnaire again at the end of the school year; this was considered minimal growth. The described indicators with minimal growth were: (a) serving as an advocate for students; (b) using technology to help students achieve; (c) differentiating instruction; (d) using questions and discussion techniques; and (e) establishing positive relationships with parents/families. Figure 2 displays the responses from each of the four participants on descriptors 5, 14, 16, 24, and 34, for the months of September and June.

Quesiton	Participant 1, September 12	Participant 1, June 13	Participant 2, September 12	Participant 2, June 13	Participant 3, September 12	Participant 3, June 13	Participant 4, September 12	Participant 4, June 13
5	4	4	3.5	4	3	4	4	3
14	4	4	3.5	4	3	4	4	4
16	4	4	3.5	3.5	3	4	4	3
25	4	4	3.5	3	3	4	4	3
34	3.5	4	3.5	4	3	4	4	3

Figure 2. Areas indicating minimal growth.

Of the twelve initial described actions that averaged a 3.5 or lower when all responses were considered, at least two of the beginning teachers indicated growth in four areas when given the questionnaire again at the end of the school year; this was considered strong growth. Areas that demonstrated strong growth were (a) teaching students with special education needs, (b) communicating with parents/families, (c) approaching and working with administrators, and (d) managing the demands of my teaching life along with my personal life. Figure 3 displays the responses from each of the four participants on descriptors 21, 33, 38, and 46, for the months of September and June.

Quesiton	Participant 1, September 12	Participant 1, June 13	Participant 2, September 12	Participant 2, June 13	Participant 3, September 12	Participant 3, June 13	Participant 4, September 12	Participant 4, June 13
21	3	4	3.5	4	3	4	4	3
33	3	4	3.5	4	3	4	4	3
38	4	4	3	3.5	3	4	4	4
46	4	4	3	4	3	4	4	4

Figure 3. Areas indicating strong growth.

There were also 15 areas in which teachers consistently indicated no growth at all; these were considered as having neutral growth: (a) using the curriculum to guide my planning/instruction, (b) sequencing activities within a lesson/unit, (c) using a variety of instructional methods, (d) pacing my lessons to avoid student boredom or frustration, (e) maintaining student engagement, (f) connecting the content to real world experiences, (g) adjusting a lesson in the midst of it to meet student need, (h) formatively assessing student learning, (i) creating authentic assessments, (j) maintaining accurate records of learning, (k) managing classroom behaviors, (l) collaborating with colleagues, (m) engaging in reflective conversation with my mentor, (n) going to my mentor with problems/issues as they occur, and (o) using technology to communicate effectively. Figure 4 displays the responses from each of the four participants on descriptors 6, 10, 11, 13, 15, 19, 22, 26, 28, 29, 31, 40, 43, 44, and 48, for the months of September and June.

Quesiton	Participant 1, September 12	Participant 1, June 13	Participant 2, September 12	Participant 2, June 13	Participant 3, September 12	Participant 3, June 13	Participant 4, September 12	Participant 4, June 13
6	4	4	4	4	4		4	
10	3	3	4	4	4		4	4
11	4	4	4	4	4		4	4
13	4	4	4	4	4		4	4
15	4	4	4	4	4		4	4
19	4	4	4	4	4		4	4
22	4	4	3.5	3.5	4	4	4	4
26	4	4	4	4	4		4	4
28	4	4	4	3.5	3 3 4	3	3	3 3 4 4
29	4	4	 4	4	3	3	3	3
31	4	4	 4	4			4	4
40	4	4	 4	4	4		4	4
43	4	4	4	4	4		5	5 5
44	4	4	4	4	4		5	5
48	4	4	4	4	4	4	4	4

Figure 4. Areas indicating neutral growth.

However, upon examining the initial scores of those 15 items, they were rated relatively high to begin—almost entirely 4s. Moving between a 4, 'I feel I have a good grasp of this concept', and 5, 'I believe I could teach others about this concept', may have been a much larger movement than moving from a 3, 'I know about this, but I still have questions', and 4, 'I feel I have a good grasp of this concept'.

Areas that saw a decrease in growth were those in which two or more of the four total teachers indicated that their sense of comfort decreased from the beginning of the school year to the end; these areas were considered as negative growth. There were three areas in which the beginning teachers consistently indicated a negative growth: (a) motivating students to do their best, (b) using questions and discussion techniques, and (c) utilizing online learning forums. Figure 5 displays the responses from each of the four participants on descriptors 4, 25, and 49, for the months of September and June.

Quesiton	Participant 1, September 12	Participant 1, June 13	Participant 2, September 12	Participant 2, June 13	Participant 3, September 12	Participant 3, June 13	Participant 4, September 12	Participant 4, June 13
4	4	4	4	3	3	4	4	3
25	4	4	3.5	3	3	4	4	3
49	3	3	3.5	3	4	4	4	3

Figure 5. Areas indicating negative growth

In a follow-up conversation via email, I asked those beginning teachers who had indicated a decrease why they thought negative growth may have occurred. Two of the teachers commented that it could have been simply not knowing what they had previously scored themselves; after all, when examined, the scores were relatively close, only 0.5-1 point away from one another.

However, both went on to provide other possibilities, as well. One teacher stated the differences could be due to "reevaluating my ability to differentiate and incorporate technology into instruction based on my experience doing so in my first year of teaching" (Reese); in other words, whereas the teacher felt confident in the ability going into teaching, using the ability in practice is much different, and maybe the teacher realized there was more to learn. The second teacher commented similarly on the ability to adjust for student differences:

I feel that the longer I teach the more I am able to observe about my students. Instead of just seeing the major differences in students I am now able to pinpoint students with smaller differences. Therefore instead of seeing my class as having high, medium and low students, I now see more differences between students. As I grow as a teacher I am gaining more knowledge and therefore expect more from my lessons. Maybe this played a part in #1 going down. Knowledge is a blessing and a curse I guess. :) (Morgan)

In regard to utilizing online learning forums, one of the two teachers admitted that because she "did not utilize the online forum a great deal last year" (Morgan), she had difficulty working with it. She further stated that it was not her overall ability to work with any online forum that decreased, but rather her ability specific to the new teacher online forum: "I think I would have been able to understand and work with it if I put more time and effort into it" (Morgan).

Participants' Initial Perceptions of the Online Forum

Participants were initially approached with the online learning forum experience of this research in late August as the 2012-2013 school year began. Generally, the participants felt comfortable with the idea because all participants had previously experienced online learning either through their undergraduate or graduate degree programs. Because of the forum's similarity to their previous online learning experiences, none of the participants reported any initial feelings of anxiety toward the process. Rather, one participant noted, "I thought it was really exciting. [. . .] I thought it was a great idea to maybe cut back on some meetings and be able to get online and read some information" (Jaime). Another noted, "It seemed pretty simple" (Reese), followed by a third who noted the forum's familiarity to previous experiences as assuring: "I had done online classes, and I was like, I know how to work these" (Jordan).

Signing up for the forum also seemed to be an easy-to-complete process. Only one of the four participants reported any difficulty, but this was due to an attempt to use the wrong email address as a login. Once this "hiccup" (Jordan) was solved, the forum was "pretty user-friendly" (Morgan) and "easy to sort out" (Jordan).

That is not to say, though, that there were not initial confusions. Once logged into the forum, participants reported that the amount of information was "a little overwhelming" which made it difficult to decide where to start (Jaime). A misunderstanding on the part of the participants of the forum's participation requirements compounded this. Whereas the requirement was the participants log in once per week and comment on an article or discussion they read, some participants thought they were required to read everything that was posted, an incredibly difficult, if not realistically impossible, task (Moran) considering there were 80 total initial posts in 17 different (see Appendix D). Many of the initial posts also provided one or more links to additional information for more in-depth reading.

This confusion led two of the participants to go to their assigned mentor teacher for support; after hearing the participants' concern, their mentor teacher contacted the researcher who clarified the expectations with both the mentor and then all participants in a follow-up email, part of which is referenced below:

The idea of Class.io is to make your life easier, not harder. Reading all of the articles would be an inordinate amount of work, and in no way is that what I want from you. What I would like, though, is for you to pick and choose what to read depending on your area(s) of interest. You can then comment on something (not everything!) you have read or tried or thought about. I would like you to briefly read over your colleagues' posts, though, because another goal of this is to learn from each other. (Moran)

After the expectations were clarified, the participants seemed to be able to easily navigate the "user friendly" (Morgan) forum and meet the expectations (Reese). By the end of the school year, the participants had, in total, responded 133 times to the initial posts.

Forum Content

When asked to discuss the overall usefulness of the content found on the online forum, each participant agreed that the content was beneficial (Jordan, Morgan, Jaime, Reese). Comments such as, "I really did find it helpful" (Jordan), "the stuff [. . .] posted was good" (Morgan), and "the information was [. . .] very well thought-out" (Reese) were among others woven throughout all participant interviews used to positively describe the content found on the online forum. Described as being "informative but also engaging", the articles, comments, and videos were generally brief, leading one participant to comment: "[Y]ou didn't feel like you were reading someone's dissertation . . . long and long and long . . . It was all [. . .] to the point" (Jaime).

Several factors combined to lead each participant to ultimately conclude that the forum's content was useful. To begin, the content was data-driven: the researcher "gave a survey at the beginning of the year [. . . and] she used that data to drive Class.io and the materials that she provided us" (Reese). Based on the survey results, the researcher provided "intentional" (Reese) information that the novice teachers "wanted to know more about" (Jaime) and that would be helpful specifically to first-year teachers, answers to questions they might not have known they even had: "It was very intuitive on [the researcher's] part to know what we would need to know as first year teachers" (Reese).

Over and again, the term "relevant" was used to describe the topics that ranged from "practice to theory" but that also addressed "having a life outside of [school], how to deal with the stress of this, or how to deal with that, different tactics of how to cope" (Jordan). In a post discussing classroom management from September 2012, one participant expressed, "I am glad to have the opportunity to discuss this issue with you all, since I have already spent some time reflecting on the way I interact with my students" (Reese).

Another participant stated regarding the content's applicability, "I liked being able to go on [to the forum] and say, 'Ok, I want to read something about . . . I want to get some information on . . . maybe standards-based grading, so let's see if there's anything in there and pull it out" (Jaime). The topics were also those clearly on the participants' mind as demonstrated through a statement made in a February 2013 post. After I posted a list of seven steps to dealing with difficult students and asked participants if any of the steps were more difficult than the others, three of the four participants (Caitlin, Jaime, & Reese) posted back lengthy replies. One participant stated: "I do recognize that this is kind of just rambling, but I felt compelled to comment since I have been discussing this topic in other circles!" (Morgan).

Participants also commented on the comprehensive nature of the forum's content; one stated, "I didn't feel like there was anything that [...] I wish we would've talked about or that was missing [... The researcher] did a really good job of making sure there was a good, solid list for us to pick from" (Jaime). However, because participants were free to self-direct their development by choosing which topics they wanted to explore, there was not the feeling of a teacher "lecturing" a student (Reese); instead, the selfdirection provided "differentiation" (Reese) that seemed "unobtrusive" (Reese) and "down-to-earth" (Jordan).

Along with the content's relevance and comprehensive nature, there was also the element of timeliness related to the information. One participant described a specific situation when the year was nearing parent-teacher conferences, and having very little experience talking to parents about their children, the forum was able to provide "the right perspective" by offering tips and advice, the practical "nuts and bolts" of how to prepare and deliver an effective parent-teacher conference (Jordan). In a comment made on the forum before the same aforementioned parent-teacher conferences, one participant wrote,

This article served as a good reminder of positive suggestions and solutions when

discussing student issues with parents. The two suggestions I found most useful are: 'Emphasized partnerships', which involve a concerted effort on the part of schools to get parents and teachers to work together as 'equal partners' for better student outcomes; and 'Homework checking', in which parents are encouraged by the school to make sure their children are completing homework every day. (Reese)

More often than not, participants stated they chose topics on the forum that were most "immediately applicable" (Jordan) to them: "I would go on and click a few topics and find some articles that I was like, 'Oh, I've been thinking about that' if something had been rattling around in my brain" (Jaime). Two of the participants mentioned specific articles and discussions related to classroom behavior management (Morgan, Reese). Another of the participants commented,

You get to that point where you're like, 'I've tried everything, and I just don't know what else to do'. So, taking a step back [to the forum], there was a 'Have you tried this?' or 'Have you tried coming at it from another angle?' [...] and it seemed to be just what you were looking for. (Jaime)

In a forum comment posted in February 2013, a participant provided an example of this "just what you were looking for" (Jaime) moment:

Thanks for the lesson planning reminder, Sarah. The hardest part of lesson planning for me is finding time for the review. ^(C) I am guilty of over planning, as I always want to cover more depth of content than I actually have time for. Therefore, I am often left with just minutes before the bell rings in the production state. Given this reminder, I will try to spend a few minutes at the end of each class reviewing and discussing the content learned. (Reese)

While some participants relied on the material's applicability when choosing an item to read or video to watch, others chose materials based on the notion that they looked generally "interesting" (Jordan) or because "someone else had posted" (Morgan) about them; one particularly popular post was an article written by Gorski (2008) in Education Leadership titled *The Myth of the Culture of Poverty*. It was read by at least three of the four participants who generated a conversation that produced 10 more posts and lasted roughly a month.

For others, the choice was sometimes made based on the opinion that something was important to the field, and it was "kind of nice to see what's going on in education" (Morgan). Other topics mentioned as specifically being beneficial were those related to inquiry-based learning, lesson elements and components, cooperative learning, and the Common Core State Standards. At times, though, while the topics provided valuable content, the comments made by participants in the forum showed a level of anxiety about what was still unknown to them: "I am really excited and overwhelmed by CCSS. I love that students are held to an even higher standard of learning, but I'm not sure what that will look like yet" (Jaime).

Another factor related to timeliness was that if a participant had previously seen a topic and dismissed it as not being relevant, but then later discovered a use for that topic, it was possible to return to that information and reevaluate its usefulness and applicability. One participant stated that because of a "very specific question", the participant "went back to the forum to find the answer or something along its topic"

(Jordan). Because the information presented within the forum was organized topically by hashtags, this was an uncomplicated task to complete.

Of the participants, one, who also commented on the streamlined organization of topics, thought the presentation of such an inclusive range of articles and discussions was "interesting for us to explore and respond to" (Jaime). According to the same participant, the forum was a time-saver because "worthwhile" information was provided, and the participant did not have to research topics and sift through various resources for specific information (Jaime).

Further, the online forum provided a format for an unlimited number of materials to be posted; a participant could "pick what you wanted to read about" (Jaime). The researcher would post "lots of information [. . .] maybe five things at a time" (Reese) providing an array of topics at any given reading. One participant described it this way:

The selection of articles was good. I think if we were going to do a face-to-face, we would've had to pick a topic for the month and everybody read about it and then come and talk about it. I think the ability to look at multiple things at once was probably a really nice benefit that wouldn't have worked in person (Jaime).

Additionally, the forum was not limited to materials or information provided by the researcher; its set-up allowed participants to post items they found interesting or helpful.

Ownership and Self-Directed Development

One of the initial goals of the online mentoring forum was to allow for ownership and self-directedness of one's development. After all, as one participant stated, the new teachers participating in the forum were "kind of in different positions in terms of how long they [had] been teaching or what their experiences [had] been" and "what you're facing in your class [is] different for someone who's been teaching for four, five, six years" (Jaime). All of the participants agreed that this was a strength of the forum, that being able to click on something that piqued one's attention or choosing not reading something "if it wasn't something that was terribly interesting" (Reese) to him or her was a benefit over a face-to-face meeting.

Participants were required to post once per week in order to generate conversation, but there was no requirement specifying on what participants must respond, as in some online learning forums. A participant could comment on an original post from the facilitator, a participant could comment on another participant's reply, or a combination of both. One participant noted the structure provided choice and allowed for differentiation (Reese) without being too "top-down" (Reese). The ability to choose articles that were "immediately applicable" (Jordan) to one's teaching helped each teacher explore areas in which they were interested or felt they had need for growth.

One teacher noted the opportunity to explore of the Common Core State Standards and further stated, "[The forum] really helped me make sure I was doing backward design and looking at the standards and going from there and really looking for what my kids needed" (Jaime). Whereas one teacher felt drawn to standards-based grading, project-based learning, and the Common Core State Standards (Jaime), another felt "disjointed" from conversations on such topics and focused more attention on her content and on how to best facilitate the learning of that content (Morgan).

Another way in which participants felt they could self-direct their learning and aid in the growth of their peers was through their own posts (Morgan). Although that had not been part of the researcher's initial considerations, and although it did not occur regularly, the possibility of participants posting articles they had come across and found interesting or helpful was present and at least one participant noticed it (Morgan).

It is important to note that although each participant felt they were able to selfdirect their professional development, three of the four noted that if their participation had been more consistent, they would have felt more ownership in the process: "I feel like I could've [had more ownership . . .] if I would've fully participated [. . .], if I wanted to actually put some time into it" (Morgan). Further, the participant continued, "[I]f you wanted to get something really big out of it, it would take some time, and I didn't feel like I had a lot of time" (Morgan).

One concern of the researcher, which was also limiting to the research, was the supervisory nature of the relationship between the primary researcher and the study participants. Three of the four participants, though, agreed that the researcher's position was not influential in either the number or quality of posts they wrote: "[The researcher is] a very approachable person, and I never felt like, 'Oooh, I shouldn't . . .' anymore than any other professional that I was writing to. I didn't think, '[she's] my principal, I shouldn't type this'" (Morgan). Another stated, "I don't know that I tied it into an 'important authority figure' is watching over you; it didn't feel scary in that sense" (Jordan). Contrarily, one participant noted in a description of difficulties faced during the first year of teaching, "it was okay to talk about some of those things, but obviously you don't want to make yourself sound like an incompetent moron, so we did have to be careful because she was an administrator" (Reese).

Participation

Overall participation varied depending on the participant; one participant went above and beyond the minimum requirement of two postings per week, sometimes posting as many as five times (Reese), whereas another, on the other end of the participation spectrum, only participated four times throughout the entire study (Jordan). However, although there were differences in the level of participation from person to person, there were some similarities that were worthy of noting.

First, all participants made reference to participating in the online forum as being "one more thing to do" (Morgan) or "another thing on my plate" (Jordan). Because of the overwhelming nature of being a first-year teacher, many times the forum was relegated to the "bottom of the list" (Jordan) of tasks to complete. Further, three of the four participants were in close physical proximity to one another within the building, so the conversations that might have taken place online in the forum were taking place organically in the hallways or in grade-level, or team-level, face-to-face meetings. One participant noted the following regarding the forum participation: "[T]here were so many new teachers in the building this year, and we all talked to each other so much, there was this feeling of, 'Oh, I just talked to you about that'" (Jaime). Another remarked,

I was having those conversations outside of the forum face-to-face with my teammate and with the other [participant] in sixth grade a lot, and I was having them with my mentor, so it just felt like [...] okay, now I have to type it online. (Morgan)

Perhaps because conversations were happening in real-time and there did not seem to be a need to seek out answers for questions, "forgetting" (Jordan) to post to the forum became a common issue of participants (Jordan, Morgan, Jaime). One participant's forgetfulness was described as such:

[I]n the beginning of the year, of course, it's so busy; and then, it just felt like once a week, I was like, 'Okay, now this week I have to do this . . ." and then a couple more weeks got away from me, and I felt kind of bad. (Morgan)

Because participation in the forum could be described as generally inadequate, collegial dialogue, although encouraged, was also greatly limited within the forum: "[V]ery rarely would anyone comment on other participants' comments [...] The facilitator would respond, but it wasn't an open dialogue between the teachers" (Reese). When dialogue occurred, one participant described it as being "a little stilted"; the participant continued by saying, "I don't feel like we talked online the way we would in person [...] It was a little academic, not as authentic as real communication" (Jordan).

However, one participant in an effort not to sound too "jargon-y" or weigh down a comment with too many "buzz words" (Jaime), stated, "I tend[ed] to respond a little bit off the cuff just because I [felt] like it's more authentic" (Jaime). The participant made the effort in the hopes that the others would respond in the same way: "I want to hear other people's authentic feelings about this and not just what you think you're supposed to say" (Jaime).

An additional barrier to communication was the lag-time between comments; the lapses made one participant describe the dialogue as being too "formal" of a process:

I think you can cover more in a 30-minute discussion than if you post, you wait awhile, someone else posts back a sentence when they get time. Whereas, I think an around-the-table would be much more focused. You'd be able to go much more in-depth; it's immediate, and there's immediately interaction instead of post, wait a night until someone posts another sentence, then I post a paragraph, then they post another couple sentences. (Jordan)

Moreover, because there were many topics from which to choose and many articles, videos, and/or resources within each topic, participants, when responding, were all responding to different areas: "[W]e'd respond to different things a month apart, and I would look at hers and say, 'Oh, that was a good month ago,' and it's not the same conversation anymore" (Jaime).

Analysis of Being Online

As before mentioned, all of the participants had previous online learning experiences during their undergraduate and/or graduate learning, so it was possible for them to compare their previous experiences to the new teachers' online learning forum and evaluate it in regard to what they considered successful. There were some aspects that participants appreciated, such as the automatic email reminder that was sent out when someone in the forum posted (Morgan, Reese). Others commented they valued the ability to watch posted videos (Morgan, Jaime). One enjoyed the ability to work at one's own pace and work from home on a Saturday rather than adding to the workday (Jaime). Finally, another noted the amount of information it was possible to provide: "I wouldn't be able to collect all the resources, whereas online, you can keep nine articles about this thing in one spot and know where to look" (Jordan).

Nevertheless, there were aspects that the participants felt did not help the forum be successful. One aspect was the seeming lack of accountability (Morgan, Reese): [Being online] doesn't seem like you need to do it as much to me because you never really see anybody and you never really are forced to sit down and talk about it and feel a little bit of pressure to do things. (Morgan)

Another of the participants noted, "[I]t was almost so convenient [...] you could just forget it" (Reese), and another stated, "I typically forgot about it quite often" (Jordan). One participant as a means of explaining considered motivation and its role in the participants' participation: "[T]here's nothing extrinsic you can hold over a teacher's head. It's the 'or what?' that's missing [... It's] more about motivation and what can you do extrinsically if they're not intrinsically motivated to do it themselves" (Morgan).

As an interesting aside, one participant expressed that although all of the participants had online learning experience prior to this study, perhaps one problem that complicated the online forum was that as a culture, there is still a transition taking place between traditional methods of learning and advanced computer-based learning (Morgan):

[M]aybe a tenth of my education was using online, but we're not totally that online culture yet. I think our kids, they'll get to college and everything will be online; books will be online, everything. Like when I was in college, I still printed every single thing I had to read, you know, so I'm not really in that spot that everything for me I like online, if that makes sense. I still like pencil and paper, and I think I like meeting face-to-face" (Morgan).

Participant Suggestions for Further Study

As the school-level teacher mentoring program will continue to exist in either the online format or some other, the participants were asked to make suggestions they felt would improve the program's successfulness and meaningfulness. A common suggestion was to hold a regular meeting with a pre-determined topic (Jordan). This would, in one participant's view, possibly help to create more authentic discussions and ones in which people would be "able to go deeper than line here, line there" (Jordan). Another participant when suggesting a face-to-face meeting explained, "[T]hat's what I like, talking to everybody [...] to hear what they're doing and how they're using new standards in their classroom" (Jaime). Yet another said a face-to-face meeting would cause participants to "feel connected" (Morgan); using the online forum, participants were "kind of disconnected because [they were] reading in cyberspace" (Morgan).

It was unclear what the participants deemed as being the most appropriate quantity of time spent in face-to-face meetings; one participant felt that a weekly meeting would be appropriate (Jordan), however a more common suggestion was one time per month (Jaime, Reese). What was clear, though, was that a face-to-face meeting, because of its "clear deadline" (Morgan), would provide the accountability the participants felt was generally lacking in the strictly online forum (Jordan, Morgan).

Another recommendation was having the teacher's mentors participate in the online discussion in order to broaden and add more voices the conversation: "It would've been nice if our mentors, maybe, or some other senior people from the building had been responding, too, to get their perspectives [...] it would be nice to get feedback from them" (Jaime). If the mentors choose not to participate, and in this study they could not be required to participate, an additional suggestion was to offer the forum to other new teachers outside of the school (Morgan).

Because some participants felt that the requirement of two posts per week was too intensive (Jaime), one participant suggested that at the beginning of the school year, the forum topics should be limited, "maybe two or three to start off with" in order to "get more conversation going" (Jaime); then, in the participant's thoughts, the forum could "expand [... and participants could] come up with suggestion like, 'Oh, now we're interested in this' or 'We were talking about that'" (Jaime).

Perhaps important to note, none of the participants suggested discontinuing the forum. They did, however, provide suggestions of how to otherwise utilize it. One participant suggested "having the resources online" and using the forum as a supplement to face-to-face meetings (Jordan); others, though, suggested the face-to-face meetings as a supplement to the online resources (Morgan, Jaime, Reese):

Maybe once a month meeting with the expectation that the new teachers had read two or three articles and were prepared to discuss how those articles or their content or methods relate to teaching and reflections on that. Or, here are some questions to consider that we should discuss when we meet (Reese).

Administrator's Role as Facilitator

The role of the administrator in the facilitation of the online mentoring program was complex. From the beginning, I very much wanted to maintain the one-size-doesnot-fit-all approach that was the cornerstone of the research as well as my own teaching and leadership philosophy:

Like students, not all beginning teachers will benefit from the sit-and-get meeting method where information is regurgitated to them. Instead, we in administration need to think toward differentiating for our new teachers as if they were our students, not only benefitting them in providing useful information in a timely manner but also modeling for them both differentiation and the implementation of technology into daily classroom use. (Moran)

To begin, to facilitate the forum and ensure engagement in collegial dialogue, it was necessary to set a requirement for a minimum number of posts per week. This caused an initial dilemma for the facilitator because of her background teaching online learning courses; to maintain a dialogue, posts must be made, but requiring too many posts might have caused participants to be overloaded: "I don't want to assign too many posts and require too much time to be spent on the forum; I don't want this to become a burden to new teachers who already have a lot on their plates" (Moran).

As the facilitator, I was also challenged to find articles and videos that were relevant and high quality that addressed the areas in need of development as identified through the survey periodically provided to participants throughout the year. One aspect of this challenge that I had not anticipated was the concern of not meeting the teachers' needs: "I'm searching and finding interesting articles, but I'm not sure that what I think is interesting is what they will find interesting" (Moran). This perhaps caused me to "overpost" (Moran), to put up too many articles because I was not sure which article would best serve the needs of the teachers. In the beginning, this over-posting along with confusion about what exactly they were supposed to read caused the teachers confusion.

The limited number of participants later created problems, though. First, because of the extensive list of topics and many articles/videos posted under each, the participants did not necessarily dialogue on the same topics, preventing the interaction that was desired. As time progressed, the participants' level of dedication also waned, and the number of posts became fewer and fewer, adding to the absence of interaction. Although reminders to post were given to participants both orally and through email, the participants were never able to fully experience the dialogue of online learning because of the minimal number of posts. Because the program was non-evaluative, there was no way to compel the participants to meet the requirements.

There was, in my opinion, a fine line at times between facilitator and administrator. Although, as also noted by the participants, there were not any disconcerting situations, the leader-subordinate relationship was always a consideration of which I was cognizant. In a reflection describing the meeting during which the first survey was administered and forum requirements were outlined for participants, I described a concern that plagued this research:

I wish I had asked the mentees for permission to tape the conversation. However, I also did not want the mentees to feel like I was judging their comments or that their comments would be 'used against them' later. After all, our mentees are currently in a precarious situation [...] a major shift in employees since many of the teachers in the closing school are tenured and certified to teach K-6 or K-8. What that means for our mentees is that their one-year contracts may not be renewed at the end of the school year. Going into their jobs, they were well aware of their status as employees on one-year contracts, but at the same time, that status has never before in the district been an intimidating factor as most of the oneyears are renewed. That may not be the case for this year, though. If there were ever a time for a first-year teacher, beginning or experienced, to be nervous for their job position, it would be now. As such, everyone is doing their best to show their value and may not want to admit to any weaknesses. In terms of a learning community, this is not the best scenario. (Moran)

Conclusion

The purpose of this chapter was to present and analyze the data collected after implementing an online teacher mentoring program. This program was based on research indicating best practices—Chapter Two—and then followed a procedure utilizing those characteristics in an online teacher mentoring program—Chapter Three. To ensure the accuracy and validity of the researcher's conclusions, two forum participants were asked to review the findings. Lastly, based on the researcher's conclusions—Chapter Five, changes were made to the following year's building-level teacher mentoring program.

Chapter Five: Discussion and Reflection

Overview

This case study was an action research project aimed at identifying effects on and experiences of those involved in an online learning forum used as a method of new teacher mentoring. The program lasted one school year and was evaluated using a survey executed at the beginning, middle, and end of the year as well as individual interviews conducted with each participant. Based on the information gathered from the surveys and interviews, both strengths and weaknesses of the program were identified and later employed to implement changes for the following school year's new teacher mentoring program.

Discussion

Research Question 1: What, if any, are the effects of including an online learning forum in one school district to modify the traditional teacher mentoring program?

Based on the data collected through the Views on Practice Questionnaire and participant interviews, the effects of including an online learning forum to modify the traditional teacher mentoring program were generally seen as positive. The participating teachers were originally asked to complete the Views on Practice Questionnaire in order to identify areas of practice on which to focus. These focus areas were used to develop the content of the online forum the participants utilized for this research. From that, 12 areas were identified for professional development. Five of those areas identified for development saw minimal growth: (a) serving as an advocate for students, (b using technology to help students achieve, (c) differentiating instruction, (d) using questions and discussion techniques, and (e) establishing positive relationships with parents/families. Four more areas identified for development saw strong growth: (a) teaching students with special education needs, (b) communicating with parents/families, (c) approaching and working with administrators, and (d) managing the demands of my teaching life along with my personal life.

Two of the remaining three indicators denoted neutral growth: (a) creating authentic assessments and (b) maintaining accurate records of learning. The last indicator, adjusting for individual differences among students, saw neutral growth from three of the four participants but negative growth from one of the four participants. As stated by the participants, the reasons for neutral or negative growth could be as simple as not knowing how they had scored themselves previously or not accessing the forum frequently enough to be an active participant. Two of the four participants also noted that although they felt confident in their abilities going into their first year of teaching, putting theory into practice was harder than they had anticipated.

Although it was impossible for the online learning forum to meet the first two functions of a formal mentoring relationship as outlined by Sosik, et al. (2005) psychosocial support/camaraderie and modeling of behaviors/values—the above synopsis of the nine areas that saw minimal or strong growth indicate the online learning forum was able to provide career development. The online forum also provided an experienced and trained mentor to all of the new teacher participants, ensuring that if any one of them had been paired with someone they found unsatisfactory, they would always have one individual on whom to rely for professional support.

One aspect that was disappointing was that the participation in the forum was generally lacking; only one participant regularly posted and attempted collegial conversation, two participants were more sporadic, and the fourth was almost entirely absent from the forum. However, knowing that new teachers can often be overwhelmed and in a state of emotional exhaustion (Liston, et al., 2006), it is hard to determine whether the lack in participation was due to an issue with the forum itself or whether, as one new teacher stated, it was just another "thing" on his "plate" (Jordan), something that was easy to delay or dismiss altogether because there was no consequence for nonparticipation.

For this particular participant, a face-to-face meeting would have been more effective than the online learning forum. When attempting to determine whether there were outside factors that may have played a role in his participation, none could be immediately detected. His workload was similar to the other participants as well as his extra-curricular duties. He had online learning experiences prior to this research and the same amount of teaching experience as two of the other three participants. So, in a postresearch conversation, I asked the participant to explain candidly why he had not been more active in the forum; his response was that the forum and its requirements were "just not as important" as ensuring he had solid lesson plans and knew his content well (Jordan). When I suggested that perhaps the professional development could have helped with that, he agreed that it could have helped, but added that he "couldn't see past the 'right now' of what was going on" in his classroom (Jordan).

The lack of participation was a problematic issue for the forum. Although the forum was meant to be more convenient, and by some accounts was, it was also meant to help professionally develop new teachers throughout their first year of teaching. If someone chooses not to participate, as in this case, the forum is unable to support a

person's professional development needs, and the effectiveness of the forum would be unrealized.

Research Question 2: What is the administrator's role in the creation and facilitation of an online learning forum for teacher mentoring?

My role as the administrator as well as the moderator, creator, and facilitator of the online learning forum was complex. Palloff and Pratt (2011) posited that trust must be built in an online forum and Collison, et al. (2000) talked to the necessity of building community in order for effective learning to occur. However, both of these tasks were difficult as the new teachers participated only minimally in the discussion boards. To build trusting relationships, I had to make efforts outside of the forum to meet and speak with the new teachers; this, however, would be impossible in some online learning situations.

The role was also complex because, although I did not directly supervise any of the new teachers, they were still subordinate to me. No matter the amount of trust and community that was built, they were still aware of my role in relation to theirs. However, as noted by the participants, they recognized the work I did to ensure I provided materials that were relevant and timely to the new teachers' needs; this seemed to be appreciated by the participants. As previously noted, the Views on Practice Questionnaire was first used to identify topics the teachers self-identified as requiring professional development. The questionnaire was given again at the mid-year point, and its results, along with conversations I had with the participants throughout the year, were used to modify and add to the content posted to the forum. *Research Question 3: What is the experience of the mentee in an online mentoring program?*

The experience of the mentee in this online mentoring program often reflected aspects of previous research, both positive and negative. First, the program aided in the career development of the participants as it provided a structured but personalized approach to learning. The topics within the forum were seen as relevant (Jordan), comprehensive (Jaime), and able to be "immediately used or applied" in the classroom (Reese). The questions asked by the moderator also helped the participants to be reflective and relate the content to their own context:

[The moderator] would ask a question like, 'What are some ways you could see yourself incorporating this in the classroom?' and, 'How can you apply it?' So it [wasn't] just respond like, 'What do you think about this?' It was a good method of questioning. (Reese'')

This ability of the online learning forum to meet individual needs is critical for teachers because they all have different areas of strength and weakness when entering the profession and thus need professional development in different areas. The structure, though, is important, too, because as Grossman and Davis noted, teachers who received mentoring "generally have higher levels of job satisfaction, commitment, and retention within the profession as well as larger student achievement gains" (2012, p. 55). Further, because the participating teachers could select their areas of study, commenting on what they found interesting and, if necessary, doing more research, they were able to take more responsibility for their own learning needs.

However, although the individualization may be viewed as a positive aspect of the forum, it may also be perceived as a negative one, too, in that the ability to become immersed in one's own area of study could lead to an isolation of one or more participants. Isolation, in turn, could hinder collegial dialogue, thus perhaps limiting the amount of learning that is possible.

Another limiting factor of the forum was that for some, the absence of face-toface communication, the inability to network with or shadow one's colleagues, was disadvantageous. One participant noted that he felt the discussions "would be more authentic and be able to go deeper than a line here, a line there" (Jordan) if they had been in person rather than on a discussion board.

Another point that cannot be overlooked is the reality that the four participants of this study were in close proximity of one another as well as their school-assigned mentor teachers. This convenience may have led to more in-person conversations and fewer online dialogues between colleagues than if the forum had spanned several schools or districts:

It seemed like I'm standing right next to Jaime, and now we have to go comment on each other online. It's just, to me that seemed a little silly. Every other time I've been in an online forum, it's with people I don't interact with on a daily basis. (Morgan)

However, while limiting for some, the flexibility of when and where one accessed the forum provided an "unobtrusive" avenue to learning (Reese), allowing for time to reflect and gather one's thoughts so that when one responded, "you got what I was really thinking and feeling" (Jaime). Also, having someone other than their assigned teacher mentors allowed the participants to study and ask questions related to "bigger picture, philosophy of teaching type stuff," whereas the assigned mentors were more often asked school-specific questions (Reese).

Implications for Further Study

This study provided a general context for one example of an online, new-teacher mentoring forum. From this context, other schools may begin to plan their own online, new-teacher mentoring programs. However, after an examination of the results of this study, there are several recommendations to be made for further study. While this study would have been improved with a comparison group who had traditional, face-to-face meetings, the potential pool of participants was not large enough. In addition, the number of new teachers in a building fluctuates from year to year; the year prior to this research, for example, there were no new teachers in the building.

First, for an online mentoring program to be effective with new teachers, it may be beneficial for the program to be mandatory. One weakness of this study's online learning forum was that the participants were asked to be self-motivated and participate out of a sense of personal commitment. Of the four participants, only one, in the researcher's opinion, utilized the forum to its fullest; even then, because others did not, the teacher had a difficult time dialoguing with colleagues. There was no tangible consequence for nonparticipation; however, nonparticipation by several participants, as in this case, perhaps minimized the amount of learning that could have been possible. One way in which to encourage a minimal level of participation would be to note it in a new teacher's evaluation, perhaps under a category such as fulfilling professional responsibilities. Another recommendation would be for the program to serve a minimum number of participants. Having only four participants in this program limited online conversation and perhaps limited the amount of learning that could have been possible. By including a minimum number of participants, maybe 8-10, more professional dialoguing could have occurred. It is further recommended to have more than one mentor teacher also participating in the program. Each mentor teacher would bring additional and varied experiences to the forum, thus allowing for greater learning for the participants. For schools that are limited in either the number of new teacher participants or mentors available, it is also recommended that a larger scope be investigated; schools could create new teacher networks in which a similar online learning structure could be possible. School districts, especially those that are small or those that because of location traveling is difficult, could combine to form such networks and draw on the wealth of experienced teachers in all areas.

Further, it is worth noting that online learning is not for everyone (Snyder, 2013). Motivation and interest in the online forum must be present, as above noted. However, online learners must also be organized with their time, have a basic amount of computer savvy, and have a level of reading comprehension that allows for critical reading and responding (Snyder, 2013). If new teacher participants do not meet those competencies, they may need additional structures, like one-on-one conferences or face-to-face group meetings, put in place to ensure their development.

Changes Made for 2013-2014

Research demonstrated that for as many advantages as there are for online learning, it's not a style that meets the needs of everyone (Snyder, 2013). In the case study of this action research, although the benefits of online learning were replicated, there were also aspects that proved ineffective. To alleviate these issues, changes were made during the 2013-2014 school year. There were five participants during the 2013-2014 school year; two of the participants were in their second year of the new teacher program, one was an experienced teacher who was new to the district and building, and two were brand new to teaching.

Although one of the benefits of the online forum was the participants' ability to work at their own pace and when and where they chose, the minimal time spent in faceto-face meetings also seemed to lead to a lack in accountability; if a participant chose to rarely participate, there was no recourse. To add more accountability, a monthly face-toface meeting was scheduled (Appendix E). As of the March 18, 2014, meeting, all five participants had attended each of the monthly meetings. However, care was taken when crafting the meetings not to return to the status quo, but rather to employ the aspects of the online forum that the teacher participants found useful and effective. In addition, the online forum itself was maintained, although participation was optional.

First, as the researcher, I felt it imperative to maintain the level of selfdirectedness that existed within the online forum. I also wanted to ensure, though, that the new teachers were prepared for the topics and events that occur yearly within a school such as parent-teacher conferences and state standardized testing. Based on participant interview data, it was clear that participants were able to guide their own development; however, because of this self-directedness, the new teachers may not have felt it necessary to read about those yearly occurring events within the school. This was an aspect of the online forum I felt was lacking. To accommodate both self-directness and assigned topics, a schedule was prepared at the beginning of the school year that outlined the topics to be addressed at each meeting, but the new teachers were responsible for bringing in articles within the topics that they would share with each other and use as catalysts for conversation. This allowed teacher participants to be self-directed and to explore within their interests but still provide a generalized structure for the group.

With the variety of topics available from which to choose on the online learning forum, teachers were often responding to different topics than their colleagues, causing a lag or total disconnect in collegial conversation, another ineffective aspect of the online forum. The structure embedded into the 2013-2014 program allowed for teachers to be on-topic at the same time. An added benefit was the interdependence this structure provided; the teachers reported they felt responsible to each other and realized that the quality of their meeting was really dependent on the effort they provided. When the teachers sat in a room together, they knew they would be asked to weigh-in on whatever topic was being discussed.

As recommended by two of the 2012-2013 participants (Morgan, Jaime), the new teachers' mentors were also invited to participate in both the online learning forum as well as the monthly meetings. However, none of the mentors chose to participate. The forum was also opened up to new teachers in a nearby school district; however, they, too, chose not to participate.

Most importantly, the online forum was kept up and running throughout the 2013-2014 school year. Teacher participants were free to post to the forum, and I as the moderator posted frequently. Much of the traffic the site received was during the weeks prior to a scheduled meeting as teachers prepared their articles for presentation. However, collegial conversations were minimal, and for all intents and purposes, the forum was used more as an article database than as a learning forum.

Conclusion

The purpose of this chapter was to discuss the collected data and their implications after implementing an online teacher mentoring program. This program was based on research indicating best practices—Chapter Two—and then followed a procedure utilizing those characteristics in an online teacher mentoring program— Chapter Three. The data was presented and analyzed—Chapter Four—and lastly, based on the researcher's conclusions, changes made to the following year's building-level teacher mentoring program were described.

This research reflects the idea that the world is changing, and as an educational system, we, too, must change. We cannot continue with the status quo that has teachers fleeing the profession. The global economy, with its "dramatic acceleration" of competition and collaboration (Bellanca & Brandt, 2010, p. xvi), and the ever-evolving domains of information and communication technologies, both direct attention to the need for teachers who are better equipped to adapt and learn in order to meet changing student needs. To be able to produce teachers who will, in turn, be able to produce students who are prepared for the 21st century, we must experiment with new avenues of continuous learning that allow teachers to grow and develop, and we must find new ways to support and nurture teachers in order for them to become the best teachers possible.

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Appendix A

Beginning Teacher's Views on Practice

Survey

Name_____ Date _____

Consider your current level of comfort in each of the following areas. Be as objective as you can in your responses; they will help guide the instruction for the remainder of the year.

1: I have no idea how to do this.

2: Someone has talked to me about this, but I don't really know how to do it.

3: I know about this, but I still have questions. (Feel free to list a question beside this item.)

4: I feel I have a good grasp of this concept.

5: I believe I could teach others about this concept.

Students

Comments

- 1. _____establishing individual rapport with students
- 2. _____identifying individual differences among students
- 3. _____developing caring relationships with my students
- 4. _____motivating students to do their best
- 5. _____serving as an advocate for students

Planning

- 6. _____using the curriculum to guide my planning/instruction
- 7. _____planning daily lessons
- 8. _____planning units of learning
- 9. _____planning summative assessments of learning
- 10. _____sequencing activities within a lesson/unit

Lessons

- 11. _____using a variety of instructional methods
- 12. _____adjusting for individual differences among students
- 13. _____pacing my lessons to avoid student boredom or

frustration

- 14. _____using technology to help students achieve
- 15. _____maintaining student engagement
- 16. _____differentiating instruction
- 17. _____maintaining high expectations for all students
- 18. _____connecting the content to prior knowledge
- 19. _____connecting the content to read world experiences
- 20. _____using various learning modalities to engage

students

- 21. _____teaching students with special educational needs
- 22. _____adjusting a lesson in the midst of it to meet student need
- 23. _____teaching reading within the context of my subject
- 24. _____teaching writing within the context of my subject
- 25. _____using questions and discussion techniques

Assessment

- 26. _____formatively assessing student learning
- 27. _____summatively assessing student learning
- 28. _____creating authentic assessments
- 29. _____maintaining accurate records of learning

Classroom Management

- 30. _____managing class time
- 31. _____managing classroom behaviors
- 32. _____establishing class routines

Parents/Families

- 33. _____communicating with parents/families
- 34. _____establishing positive relationships with

parents/families

Self Reflection

- 35. _____reflecting on my own performance
- 36. _____reflecting on lessons taught

Interpersonal Work Relationships

- 37. _____approaching and working with colleagues
- 38. _____approaching and working with administrators
- 39. _____approaching and working with other staff
- 40. _____collaborating with colleagues
- 41. _____reflecting on my performance with colleagues
- 42. _____exchanging ideas with people with whom I work
- 43. _____engaging in reflective conversation with my

mentor

44. _____going to my mentor with problems/issues as they occur

Other

- 45. _____organizing myself and my resources in order to be efficient and effective
- 46. _____managing the demands of my teaching life along with my personal life

School

47. _____general school procedures (attendance, acquiring supplies, required forms)

Technology

- 48. _____using technology to communicate effectively
- 49. _____utilizing online learning forums
- 50. _____evaluating the credibility of online sources of

information

51. _____accessing other people's digital spaces (i.e.

Facebook, Twitter, Class.io, etc.)

52. _____creating my own digital spaces (i.e. Facebook,

Twitter, Class.io, etc.)

Appendix B

New Teacher Mentoring Action Research Using an Online Learning Forum Sarah Moran

Project Description: This action research is designed to explore the benefits and drawbacks of an online learning forum in conducting teacher mentoring. For approximately nine months, new teachers in one school district will participate weekly by posting questions, responses to articles, etc. to topics provided in an online learning forum. Throughout the school year, teachers will be surveyed to self-report on their professional growth. At the end of the school year, teachers will be interviewed to assess their views and attitudes toward online mentoring. When reported, all information regarding the school district as well as the teachers involved will be kept confidential, and the district and participants will be identified only by pseudonyms in the dissertation text.

Procedure and Risks: I would like to record the interview, if you are willing, and use the tapes to write transcripts to be analyzed as data. I will record the interview only with your written consent, and will ask that no personal identifiers be used during the interview, to ensure your anonymity. Please feel free to say as much or as little as you want. You can decide not to answer any question, or to stop the interview any time you want. The tapes and transcripts will become the property of project. The recordings and recording-transcripts (or copy of notes taken) will be kept anonymous, without any reference to your identity, and your identity will be concealed in any reports written from the interviews. There are no known risks associated with participation in the study.

Benefits: It is hoped that the results of this study will benefit the school district and its teachers through providing greater insight into the area of teacher mentoring, specifically the use of an online learning forum to modify the current method.

Cost Compensation: Participation in this study will involve no costs or payments to you.

Confidentiality: All information collected during the study period will be kept strictly confidential until such time as you sign a release waiver. No publications or reports from this project will include identifying information on any participant without your signed permission and after your review of the materials. If you agree to join this study, please sign your name on the following page.

New Teacher Mentoring Action Research Using an Online Learning Forum

I, ______, agree to be interviewed for the project entitled New Teacher Mentoring Action Research Using an Online Learning Forum which is being produced by Sarah Moran of Lindenwood University.

I certify that I have been told of the confidentiality of information collected for this project and the anonymity of my participation; that I have been given satisfactory answers to my inquiries concerning project procedures and other matters; and that I have been advised that I am free to withdraw my consent and to discontinue participation in the project or activity at any time without prejudice.

I agree to participate in one or more <u>electronically recorded</u> interviews for this project. I understand that such interviews and related materials will be kept completely anonymous and that the results of this study may be published in an academic journal or book.

I agree that any information obtained from this research may be used in any way thought best for this study.

_____ Date _____

Signature of Interviewee

If you cannot obtain satisfactory answers to your questions or have comments or complaints about your treatment in this study, contact:

Lindenwood University School of Education Department of Educational Leadership 209 S. Kingshighway St. Charles, MO 63301 636-949-2000

Appendix C

Case Study of Online Mentoring's Effectiveness for Beginning Teachers

Survey Questions

- 1. Previous to this online learning forum, had you ever taken an online learning course?
 - a. If yes: Please explain how much experience you previously had.
- 2. Generally, what were your initial thoughts when approached with this type of learning experience?
- 3. Do you remember any initial problems or areas of confusion with the forum that needed to be worked out in order for you to move forward?
- 4. How often did you log-in and participate in the online learning forum?
 - a. Was that a rather consistent figure over the course of the school year or did it increase or decrease at any time?
 - b. If yes for either increase or decrease: Please explain why that occurred.
- 5. What did you like or dislike about the format of the forum (i.e. the layout, content delivery, use of hash-tags, boxes in which to post, etc.)?
- 6. Were your professional development needs met by the topics presented in the online forum? Why or why not?
 - a. What other topics should have been represented?
 - b. What topics should have been left out?
- 7. Were there any strategies, tips, advice, etc. from the online learning forum that you were able to implement into your classroom?
 - a. If yes: What were the results?
- 8. Did you feel that you had ownership in your own development?
 - a. Was being able to self-direct your development a pro or con of the online learning forum? Please explain.
 - b. How did you select what to read and/or respond to?
 - c. Were there topics you never looked at?
 - i. If yes: Please explain why.
- 9. Did you feel there was enough social interaction within the discussion boards?

- a. If yes: What did you like or dislike about the interaction?
- b. If no: Does there need to be more social interaction? (If yes: What could be done to increase the social interaction?)
- 10. Please explain any challenges you faced throughout your online learning experience.
 - a. How did you deal with those challenges?
 - b. Were there any specific strategies you used?
- 11. What were the strengths of the online learning forum?
 - a. Were there benefits to the online learning forum that would not have been possible in a face-to-face meeting situation?
- 12. What were the weaknesses of the online learning forum?
 - a. Would any of those weaknesses not have existed within a face-to-face meeting situation?
- 13. What suggestions would you offer to improve the online learning forum?

Appendix D

Торіс	Initial Posts	Follow-up Posts	
Articles	9	13	
Reflections	8	15	
Technology	7	5	
CCSS	7	11	
Families	6	17	
Classroom Management	6	14	
Students	6	18	
Lessons	6	17	
Planning	5	3	
Assessment	5	4	
Cooperative Learning Strategies	4	1	
Writing Everywhere3	3	0	
Professional Development	3	10	
New Teacher Questions	2	3	
Grading	1	2	
Teacher Handbook	1	0	
New Teacher Powerpoint	1	0	
Total Posts	80	133	213

New Teacher Online Learning Forum Topics and Posts Summary

Appendix E

Teacher Mentoring Program 2013-2014 Outline

Purpose: to improve teaching and learning so that all students may be successful

Participant Requirements:

1st year teachers	2nd year teachers
XXXXX	XXXXX
XXXXX	XXXXX
XXXXX	xxxxx (optional)
Class.io access	Class.io access
Attend monthly meetings	Attend monthly meetings
Views on Practice Survey (initial, middle, end)	District year 2 teacher mentoring
District year 1 teacher mentoring	

Dates of meetings:

August 27 September 24 October 29 (Nov)/Dec 3 January 28 February 25 March 18 April 29 May TBA

Time: 3:00-4:00 p.m.

Location: primary—Library "back room", secondary—Main Office conference room

Tentative Topics:

August—data teams, grading, student issues/classroom management, planning, class.io September—parent/teacher conferences, parent communication October—instructional methods, differentiation, connecting to prior knowledge November/December—technology, assessment January—self-reflection, time/life management February—maintaining student engagement March—MAP testing/EOCs April—Awards/Farewells

Mentors' Participation:

Ideally, mentors would be able to attend meetings and provide input and suggestions as necessary. This is an opportunity to collaborate and learn from each other, whether novice or experienced.

Vitae

Sarah Moran became an educator in 2003 after earning her Bachelor of Science from Missouri State University. She taught middle school English Language Arts to students in both Wentzville and Fort Zumwalt School Districts in St. Charles County, Missouri. While teaching, she earned a Masters of Arts in Education Administration from Lindenwood University. Currently, she serves as an Assistant Principal in the Pattonville School District in St. Ann, Missouri.