Participation in University-Based Online Mentoring for First Year Teachers: Perceptions, Promising Practices, and Pitfalls

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ABSTRACT: This qualitative study involved five beginning teachers who had the opportunity to participate in an online mentoring program provided through a university/school partnership. These teachers were selected from a group of 65 teachers who had participated in the online mentoring program. In this program of two time periods lasting two months each, teachers were given opportunities to participate in discussions with university-based mentors on various topics via the web portal. Additionally, each teacher also had a school- or district-level mentor. This study explored why some first year teachers participated frequently in the web portal while others did not. Obstacles and supports associated with the web portal were identified. Obstacles included technology, time, directions, surviving, and subject specific needs. Supports included camaraderie, sharing strategies, and feedback. Recommendations included providing more support for technology, face-to-face professional development along with online mentoring support, and more time for reflection and participation in mentoring activities.

NAPDS Essentials Addressed: #2/A school-university culture committed to the preparation of future educators that embraces their active engagement in the school community; #3/Ongoing and reciprocal professional development for all participants guided by need; #8/Work by college university faculty and P-12 faculty in formal roles across institutional settings

Note: The authors dedicate this article to Dr. Janice Holt, our co-author, teacher, scholar, and friend, whom we lost as this piece was being revised.

Introduction

This study was conducted as part of an evaluation of a university-based online mentoring program for first year teachers within a twelve county region in rural Western North Carolina. The director of the program was vexed as to why some first-year teachers participated in the online mentoring while others did not use this resource at all.

Mentoring takes many forms across the school districts in this region and the university that provides this program is committed to maintaining a support system for beginning teachers. Thus, the research questions for this study were the two following queries: Why was first year teachers' participation in online mentoring uneven? How did these participants view their experiences of online mentoring?

The challenges of first-year teachers have been widely documented (Kumi-Yeboah & Waynne, 2012; Clark, 2012; Martin, 2008; Fry & Anderson, 2011). Feiman-Nemser (2001) states that teaching "…can be learned only on the job. No college course can teach a new teacher how to blend knowledge of particular students and knowledge of particular content in decisions about what to do in specific situations" (p. 18). Berry, Luczak, and Norton (2003) reported that in the southeastern United States 79% of surveyed teachers responded that they did not feel they had been well-prepared in classroom management, 75% reported that they were not very well-prepared in instructional methods, 60% reported that they were not very well-prepared in subject matter, and 77% reported that they were not very well-prepared in student assessment. As a result, beginning teachers' feelings of inefficacy, isolation, confusion, and frustration may lead to their early departure from the classroom. This in turn, fuels concerns about classroom and school instability, teacher quality and supply, and the costs associated with recruiting, hiring, and inducting beginning teachers (Heider, 2005).

Beginning Teacher Induction

Gareis and Nussbaum-Beach (2008) define induction as programs or services intended to address the needs of teachers new to the profession. Beginning teacher induction practices, many of which include a mentoring component, vary widely from school system to school system (Berry, Hopkins-Thompson, & Hoke, 2002). It is encouraging that public schools have recently increased their support for

new teachers in their first years in the profession. Wei, Darling-Hammond, Andree, Richardson, and Orphanos (2009) indicated that, nationally, the number of state-funded beginning teacher induction programs has grown from eight in 1996 to more than thirty in 2008. In addition, according to the *Schools and Staffing Survey, 2003–2004,* the percentage of teachers with fewer than five years of experience participating in new teacher support programs has increased from 56% to 68% between 1994 and 2004 (Wei, et al., 2009).

Smith and Ingersoll (2004) reviewed the research regarding the effectiveness of induction programs and concluded that, while there is support for the hypothesis that teacher induction programs are successful, there are also limitations to the research that has been conducted. First, most of the studies reviewed involved program evaluations and the only data collected were on those individuals who participated in that particular program. In these studies, no information was provided regarding similar individuals who did not participate in the induction program being studied. Second, these studies rarely controlled for other relevant factors that could explain the differences in outcomes across induction programs. Finally, the results of most studies were identified as being hard to generalize to other settings due to the fact that they are usually limited to one school setting. Despite the considerable variability in program components in their review of induction programs, Ingersoll and Kralik (2004) determined that mentoring could have a positive impact on new teacher retention.

School site mentoring is the most common form of beginning teacher mentoring (Heider, 2005). There are advantages to face-to-face mentoring because veteran mentors are more conversant when they are at the school worksite (Merseth, 2009). Traditional, on-site, face-to-face mentoring may carry some constraints: financial difficulties in small, poorly funded districts (Wilkins & Clift, 2007); not every good teacher will necessarily know how to be a good mentor (Feiman-Nemser & Carver, 2012). Fully realized mentor relationships are not supported by most school systems because they do not, as a general

rule, allow adequate time for peer observation (Heider, 2005).

But, mentoring also helps the mentor. Barnett, Daughtrey, and Wieder (2010), in their nationwide Teachers Network Survey of 1,210 educators, found that successful teachers get opportunities to work and share with receptive peers and that accomplished teachers who are able to share their expertise are more likely to be retained. They recommend that teachers be allowed time and tools (including online support) to facilitate collaboration. Teacher mentors can learn how to increase their effectiveness by accessing training resources provided through university technology (Schneider, 2009).

Ingersoll and Kralik (2004) cite ten studies that link mentoring with slightly better retention rates for beginning teachers, but Heider (2005) found that several mentoring programs resulted in 70% to 100% new teacher retention rates past the five-year mark. Existing mentoring programs may be ineffective in supporting novice teachers; although online mentoring is underused, those involved claim positive experiences and teachers' increased uses of technology in their own practices (Gentry, Denton, & Kurz, 2008). Beginning teachers may leave their profession for many reasons and researchers advocate creating dynamic and supportive environments with well-integrated technology to decrease that erosion (Herrington, Herrington, Kervin, & Ferry, 2006).

The *New Teacher Support: Report to the University of North Carolina Dean's Council on Teacher Education* (2007) confirms the earlier Alliance for Excellent Education Report (2005) which found that a comprehensive induction program designed to provide beginning teachers with the support and tools they need to succeed would cut attrition levels in half. Comprehensive induction programs contain several components, including mentoring, ongoing professional development, and an external network of teachers. The National Commission on Teaching and America's Future (2005) further recommends that teacher networks build upon research on teacher learning and development, develop communities of practice, and, where feasible, include online support. Schools

and universities must acknowledge that technology is here *and* now, not just on the way because this online reality is the living practice of teachers (Lock, 2006).

School-university partnerships have become an important educational phenomenon in recent years, especially as they relate to school reform and teacher quality (Holt, Unruh, & Dougherty, 2011). School districts and school-university collaborative projects around the country have begun to implement innovative initiatives and induction models (Calabrese, 2006). Some models utilize full-time mentors to provide the kind of sustained, on-the-job coaching that helps new teachers acquire the knowledge and skills they need to be successful in the classroom. Studies of these models indicate success in reducing new teacher turnover: from 39% to 9% in California (AFT, 2001), 5% in the first 10 years of teaching in Rochester, NY, and 2% for first-year teachers in Ohio (Berry, Hopkins-Thompson, & Hoke, 2002). Small, rural counties, however, often do not have the resources to support full-time mentors and must work collaboratively with other educational agencies to develop and test models that work and have the potential to become self-sustaining.

The importance of providing a variety of induction activities in addition to mentoring supports the conclusion drawn by Johnson (2004) that schools should not assume that one-to-one mentoring is the most effective induction service for all new teachers. According to the *New Teacher Support: Report to the University of North Carolina Dean's Council on Teacher Education* (2007), no one element of induction support will provide a solution to the teacher turnover problem. Putting into place a combination of support options however, can make a difference. The study found that "... *coordinated* (emphasis original) approaches to new teacher support that include school districts, state department leaders, and universities are rare both in the United States and abroad. When coordinated approaches exist, too little data is available to establish the efficacy of the partnership" (Reiman, Corbell, & Thomas, 2007, p. 7).

Virtual Mentoring

A wide range of opportunities for new teacher support is now available through a technology-mediated format, referred to as telementoring, e-mentoring, online mentoring, cybermentoring, or virtual mentoring (Abbott, 2003). Online mentoring, as defined in the context of this article, builds web-based professional learning communities among new teachers, mentors, and/or university faculty. Sprague (2006) identified three defining types of online teacher support sites: formal structures developed in multiple partnerships; degree-focused; and, informal resources chiefly consisting of email and discussion boards. Online mentoring is a complement to face-to-face mentoring and can even integrate many of the same components of both (Gareis & Nussbaum-Beach, 2007). Online mentoring by a veteran teacher can help beginning teachers realize their potential and reach their professional goals (Heider, 2003). New teachers experiencing this mentoring on an intimate level are more likely to stay in the profession (Parker, Ndove, & Imig, 2009).

Gareis and Nussbaum-Beach (2008) report that an "attractive characteristic of online mentoring is its potential to overcome some of the limitations of face-to-face mentoring" (p. 231). Online mentoring respects beginning teachers' demanding schedules, allowing them to participate at a time and place most convenient to them, and provides opportunities for new teachers to form relationships with colleagues outside the constraints of geography. Using an asynchronous format, new teachers can participate in public forums which house discussions and collections of resources including lesson plans, rubrics, and classroom management tips. Teachers can view video-streamed lesson clips that provide examples of best practice, collaboratively design units of study, share lesson plans, develop assessments, and examine student work (NSDC/NICI 2005).

As part of a comprehensive induction program, online mentoring is an effective form of professional development that is "directly related to teachers' instructional practice, intensive and sustained, integrated with school-reform efforts, and that actively engage teachers in collaborative professional communities" (Wei et al., 2009, p. 39). This kind of learning provides an experience that "holds considerable promise as a means of addressing the needs of novice teachers, reducing attrition, and improving teacher effectiveness" (Gareis & Nussbaum-Beach, 2008, p. 232).

Advantages of Online Mentoring

The literature positively characterizes online mentoring in a number of ways. users have access at any time of day; beginning teachers may interact with generous experts; online distance and separation allow novices to admit their needs; common concerns of beginners are addressed; learning and knowledge creation are facilitated; and the entire school community may experience growth. Because of overloaded work hours, teachers are more likely to use time outside of the school day to reflect. Novice teachers, especially those in hard-to-staff schools who are not fortunate enough to be in nurturing workplaces, may find that online mentoring is their primary supportive professional community (Herrington, 2006). Additionally, research has found that teachers thought asking for help online was less embarrassing than asking for help in person, especially from superiors (Heider, 2005; Merseth, 2009). Further, novices positively characterized their online mentors as caring, empathetic, and optimistic (Heider, 2005).

Online mentoring can serve as a catalyst for learning through exchanging ideas when a triad of new and experienced teachers plus university personnel work together to construct a dynamic base for a learning community (Whitehead & Fitzgerald, 2006). Schuck (2003) identifies the issues arising most frequently in these online forums as behavior management, general curricular questions, multi-age classes, and queries on resources and concepts for English and math. Hawks (2001) maintains that teacher reflection occurred more as a result of online mentoring than in face-to-face arrangements.

Eisenhmam and Thornton (1999) determined that both mentors and novices gain experience and wisdom so that everyone—new

members and the greater school community—benefits. Participants say that online mentoring helped their intervention, teaming, communication, and teaching skills (Seabrooks, Kenny, & LaMontagne, 2000). Lock (2006) describes effective online communities as living, dynamic sites that engage teachers; sites where interdependence and inter-influence evolve as knowledge is created; sites where enthusiasm, commitment, and dedication are enabled; and sites that feature reliable, flexible, and supported technology.

Problems With Online Mentoring

It is difficult to locate sustaining online communities (Nussbaum-Beach, 2007). Reasons leading to their demise include issues with technology (unreliable or inadequate), improper preparation of novice teacher-users, an unsupportive school culture, an underdeveloped community (Lock, 2006), and uneven participation, most often due to lack of time (Hudson & Bruckman, 2004; Rebora, 2009). Some online participants express disappointment because they are unable to access nonverbal cues and they report dissatisfaction with the limits technology imposes on interpersonal relationships (Seabrooks, Kenney, & La-Montagne, 2000).

Additional drawbacks included withdrawal of participants and infrequent postings, problems attributed to feeling overwhelmed as new teachers, lack of access to technology, lack of time for supplemental face-to-face meetings, and uncertainty about risking self-disclosure (Schuck, 2003). Participants criticized asynchronous sites as not conducive to brainstorming (Seabrooks, Kenney, & LaMontagne, 2000). Perhaps the most troubling shortcoming is that only 7% of new teacher reflection online is of a critical nature (Vilela & Freire, 2004).

A significant problem faced by facilitators of online communities is uneven participation. Bruckman (2000) studied children in online communities and found that they tended to under-participate when their learning was to be self-motivated, but increased participation when extrinsic rewards were provided. Of course, extrinsic rewards (Iancu-Haddad & Oplatka,

2009) as well as intrinsic ones (Green-Powell, 2012; Morgan, Kitching, & O'Leary, 2007) also motivate adults.

Muehlberger (2007) addressed the problem of low participation in online mentoring through the use of explicit rewards, including drawings for gift cards. Hence, participants' chances for tangible rewards increased each time they posted. Hudson and Bruckman (2004) ventured that the "bystander effect" explains why participation in discussion is often so inconsistent. In face-to-face situations, participants may choose silence because they think that their peers will take the initiative. Indeed, evidence indicated that the reluctant participant was much more comfortable in a synchronous online environment because the confident participants could not dominate the online environment. The bystander effect explained that if participants felt they were on their own, they were more likely to respond.

Fostering Successful Online Mentoring Communities

Effective online mentoring practice begins with the careful pairing of mentors and novices where there are similarities in attitudes and value, which positively correlates to effective online mentoring (de Janasza, Enscher, & Heun, 2008). According to Eisenman (1993), online mentoring is most effective and successful when supplemented with regular and required face-to-face meetings. These meetings are useful in developing relationships (Schuck, 2003). Bishop, Giles, and Bryant (2005) add that online mentoring needs to go beyond the creation and maintenance of an online site; adding email for the exclusive use of beginning teachers and their mentors was even more effective than simply providing new teachers with a web address and assuming they will consult it for support.

Assessment of Online Mentoring Programs

Too few longitudinal studies have been conducted to examine the ways online learning

communities have evolved (Fengfeng & Hoadley, 2009), but specific studies identified two broad areas that need strengthening. First, the actual online site must meet the needs of a great variety of users, providing differing approaches and tools (Hudson & Bruckman, 2004). Second, there remains a great need for further rigorous studies of online communities, using both qualitative and quantitative assessments (Bruckman, 2000).

Methods

Setting

This qualitative study was conducted in rural, mountainous western North Carolina during the spring semester, just prior to the end of the school year. Formal partnerships between a mid-sized university and the school systems in the region were established in 1997 and provided the structure for the majority of initiatives between the university and the public schools (Holt, Unruh, & Dougherty, 2011). A major focus of the partnership was to assist school systems in the service area in meeting state requirements regarding beginning teacher support (N.C. BOE, 2002). Implementing these requirements can be a challenge to rural schools, like those in this region, where resources are limited. Prior to this project, support was limited to providing mentor training, an annual induction symposium and other face-to-face workshops focusing on classroom management.

Conversations within the partnership focusing on technology began in 2005, and led to a grant-funded project that developed and piloted an online support program that enhanced beginning teacher support. The pilot program provided opportunities for beginning teachers to talk with colleagues who were struggling with the similar problems. Career master teachers and university faculty in the colleges of education and arts and sciences facilitated discussions and answered questions, and for the purpose of this article shall be referred to as e-mentors. E-mentors received university-designed e-mentor training prior to support sessions.

The 2009–2010 academic year marked the fifth year the mid-sized university provided online support for new teachers. The program was revised and refined using feedback and survey responses from all stakeholders: new teachers, mentors, e-mentors, principals, and beginning teacher coordinators. The platform changed to another format, modeled after current social networking sites. The new platform provided an automatic email notification when comments or resources were posted and provided asynchronous support allowing new teachers to access discussions and resources at any time.

Participants

Participants were selected from a list of 65 first year teachers who had been involved in the university-sponsored beginning teacher symposium during the school year. These teachers had been enrolled in the university-sponsored online mentoring program. From that list, stratified purposeful sampling (Mertens, 2010) was used to identify the beginning teachers who had the highest and lowest rates of participation in the online mentoring. Counties and districts were matched to control for differences in local support for first year teachers. Next, the researchers (the first two authors of this article) each selected three beginning teachers. The first researcher selected two beginning teachers with high rates of participation and one who participated once. The second researcher selected two beginning teachers with low rates of participation (only one posting from each) and one with a high rate of participation. Other novices were identified in case the selected beginners did not want to participate in the study. Each participant was given a pseudonym. See Table 1 for participants' backgrounds.

Table 1 illustrates study participants' backgrounds, school sites, mentors, levels of online mentoring participation, and number of posts. Three participants (Carl, Lisa, and Sue) had recently graduated from a traditional teacher education program while two (Jack and Pat) entered teaching after pursuing other degrees and career paths. While Sue was a recent

Table 1 Study Participants

Name	Background	School Site	Mentors	Level of Participation	Number of Posts
Carl	Recent university graduate from traditional teacher ed. Program	Early college	1 assigned by district	Low	1
Jack	Several degrees, International Experience	Alternative high school	1 assigned by district	High	10
Lisa	Recent university graduate from traditional teacher ed. Program	Elementary	1 assigned by district	High	11
Pat	Career as engineer, international experience, lateral entry teacher	Alternative middle school	2 assigned by school	High	10
Sue	Recent university graduate from traditional teacher ed. Program	Elementary	1 assigned by district	Low	1

teacher education graduate, she had worked with students for several years in various capacities (volunteer, tutor, elementary teaching assistant) while her own children were in school and pursued her own degree later in life. Of the five participants, two are men (Carl and Jack) and three are women (Lisa, Pat, and Sue). Their school situations range from traditional elementary schools to an alternative middle school, an alternative high school, and an early college high school. Four participants were assigned one face-to-face mentor each by their school districts. Pat received mentoring from two teachers provided by her school. Levels of web portal participation were rated as low (1 posting) or high (10 or more postings).

Materials and Procedure

The Web Portal

Data consisted of the university-sponsored online mentoring portal postings, a spreadsheet containing the teachers' names, districts, and number of postings, and one-on-one semi-structured interviews with each beginning teacher selected (Creswell, 2005). Once the beginning teachers were selected, they were contacted via email and telephone to invite them to participate in the study. The short interview (see Appendix) took up to 30 minutes per participant. One researcher interviewed three participants in their classrooms after school. These one-on-one interviews were au-

dio-taped and transcribed. The other researcher conducted two telephone interviews after school. The participants in the telephone interviews preferred not to have face-to-face interviews due to the driving distance and did not consent to audio-taping the interview. Instead, careful notes were kept. The second researcher had planned to conduct three interviews. Perhaps indicating how overwhelmed beginning teachers may feel, the two novices on her list with the low rates of participation in the web portal avoided contact after numerous attempts (at least five calls with messages or short conversations). However, the next (and final) beginning teacher on the list agreed to participate.

Questions and prompts were specific to the kinds of support the participants received as first year teachers and the kinds of support they felt they needed. Support was not limited to the university-based online mentoring. Indeed, teachers were asked about the local support they had from their schools, counties, and districts, whether official or unofficial. They were invited to ask questions.

Data Analysis

The researchers individually read the interview transcripts and notes several times, noting repeated phrases and ideas (Creswell, 2005; Miles & Huberman, 1994). From these repeated phrases and ideas, lean coding (Creswell, 2005) was used, where few codes were assigned before grouping them into themes. Upon comparing

codes, it was found that the codes identified by the two researchers were similar. One researcher's codes were broken down into more codes, while the other researcher had fewer, yet broader codes. However, agreement was reached with three broad codes and then sub-codes were identified within one of the broad codes.

Results

Three broad codes were identified: (a) assigned mentors, (b) other mentors, and (c) online mentors. Within the "online mentors" code two sub-codes were identified as (a) obstacles and (b) supports.

Assigned Mentors

The assigned mentors proved supportive, but would additional resources have been even more useful? Three of the five participants had been placed with mentors in their schools. Participants readily discussed their assigned mentors, seeing them as effective. Carl stated, "I was assigned a mentor, another staff member here [at my school] and . . .we meet regularly and talk about things. It's been pretty helpful." Sue's mentor, like Carl's, a teacher in her school, provided a friendly ear, motivation, and some technology support.

Lisa had a more unusual situation with her assigned mentor. "I student-taught in my current school in second grade. My former cooperating teacher helps. I was assigned a previous first grade teacher. She was my mentor for three months, but it was stressful for her. She was overwhelmed and busy with her family, so my mentor changed to my former cooperating teacher."

The other two participants had assigned mentors from their county. Pat shared, "My mentor is [from the] high school and we don't have a planning period here, so, we have met just a few times. Of course, she's available during her planning period so during my first two weeks, we met a couple of times, but since then, it's been mainly contact via email." Jack, like Lisa, had the opportunity to be mentored by his former cooperating teacher, although the mentor was stationed in another school in the district.

Other Mentors

Who else helped these five beginning teachers in an informal (unassigned) capacity? Three of the five participants referenced other teachers in their schools as being unofficial mentors. Two participants mentioned their county's monthly support meeting with the human resources director. One participant referred to a retired teacher and one even referred to students' parents as providing support.

How did the other teachers provide unofficial support? Pat, Jack, and Carl each said that they could talk with the other teachers in their schools and ask questions. Pat called the other teachers a support system and knew she could talk with them about any topic, such as behavioral management, academics, and issues facing students.

When discussing the informal mentoring he received, Jack offered, "I've had people who have given me their full attention and even checked back in with me and things like that. So that's been really great. But I ask a lot of questions so wherever I am, I could lean over and say, "Can you help me with this?" In general, I've found [other] teachers to be pretty open. Without that I think I'd be a lot more lost."

Whereas Pat and Jack spoke in terms of seeking help from others, Carl discussed informal mentorship as a give-and-take situation. Carl stated, "The other English teacher here [and I] have a shared lunch and we're always helping each other and talking together about things. I think she's in her third year, but it's still enough to be able to help a lot." Thus, Carl and his unofficial mentor were both new teachers and supported one another throughout the school year.

From different counties, both Sue and Lisa spoke highly of their regular meetings for beginning teachers with their school systems' human resources directors. One county offered monthly support while the other provided

quarterly support. Sue especially appreciated the fact that her human resource director emailed her and she felt that she could ask him for help when needed.

Pat was in an unusual situation because she had an additional mentor for the first two weeks of school due to also being a lateral entry (entering the profession through alternative licensure) teacher. Her school hired a retired teacher who "... was with me full time for those two weeks and she gave me feedback everyday on classroom management. She would run to the high school if she saw that I needed materials. I didn't even have a teacher's book ... She would get me resources, make photocopies, and she was invaluable during those first two weeks. Without her, I think I would have just collapsed."

Taking advice from parents was a form of mentoring that Jack mentioned. Parents told him what they liked and did not like about their children's former teachers and he hoped to learn from these examples.

Online Mentors

Within the online mentoring code, we identified two sub-codes: Obstacles and supports. Certain aspects of the university-based online mentoring proved to be obstacles for the participants. These obstacles often prevented participants from making the most of this mentoring resource. Other aspects of the online mentoring provided much-needed support that helped the participants in their first year of teaching.

Obstacles

What did our five participants say about obstacles related to the online mentoring? Five obstacles came up in the interviews: discomfort with technology, time, communication, new teacher survival, and other needs.

Carl, Jack, and Pat clearly stated that the technology behind the university-based online mentoring was a challenge for them. Even though these participants were comfortable with social networking, they still did not depend on

consulting the web portal. Indeed, Carl shared that he did not even know how he had been signed up for online mentoring and was unaware of what the web portal had to offer. Further, Carl's understanding of the portal seemed fuzzy; he felt unsure of where he could receive email about web portal activity, even though he would have been asked to provide his school email address for that purpose. It may also have been possible that the schools themselves inadvertently made the portal inaccessible by setting up firewalls that limited connectivity.

Jack was used to online learning environments due to previous experiences as a student at the university. However, he was frustrated because he felt the portal was not user-friendly and did not seem intuitive. "It took me a seminar where we had the people that created the website for me to actually know how to use it. I could not figure out—I'm an educated person—I could not figure out how to post stuff for the longest time." Pat echoed Jack's frustration with the technology: "There were times where I tried to go and just log in and follow a thread and it was hard to find out where the last posting was or where the discussion had been left. So, those aspects were sometimes not as straightforward and when you have limited time, that's important."

Sue, Pat, Lisa, and Jack mentioned the lack of time as a major obstacle in participating in the online mentoring. Sue lost the directions for the online mentoring, but then decided she could not get into it due to the amount of time it would take. Thus, Sue posted something to the web portal once during the school year. Pat did not have time to find the website once she stopped receiving emails about it. Lisa and Jack had two of the highest rates of participation on the web portal with ten or more postings and still lamented the lack of time to fully participate in online mentoring.

Pat's main concern with the online mentoring was what she perceived as a lack of communication. "[The postings] are gone and no one has said, 'Well, thank you for participating, we're going to shut down for the summer or forever.' I don't know what's going

on. So, why haven't I seen any postings at all, anymore? Basically, ever since the symposium, they ended. If you asked me what the web address is, I just don't have a clue. So, ever since I stopped getting emails, I haven't used it."

Carl said that surviving day-to-day as a beginning teacher was an obstacle to his participation in the university-based online mentoring. "There's just so much that I don't know. I sort of felt like it was sink-or-swim at the beginning of the semester...I have so many of those [social networking sites] available that I lose track of them all."

Lisa had other needs that were not addressed by the university-based online mentoring. Indeed, she thought it was the right kind of support, but it offered the wrong kind of help for her:

> I wanted more K-2 things. I needed more [curriculum] help, like how to teach objectives and interpret them. I needed a guide to show whether I was on the right track, especially with math and reading, science and social studies. I needed resources, advice, and help with inclusion. I had a child in my class with Down's syndrome and the county didn't provide help. I needed seminars and refreshers in how to teach reading, particularly phonics and how to teach beginning readers. At [the university] I didn't get any instruction on how to teach phonics and had to learn it myself this year as I taught.

These beginning teachers' insights will prove valuable in considering future online mentoring endeavors. Additionally, a deeper appreciation of what was offered was provided through the category we coded as "supports."

Supports

Several comments suggested that the web portal was a helpful resource. Participants especially liked the camaraderie, strategies, and immediate feedback provided by the university-based online mentoring. Jack cited the camaraderie offered by the web portal. He said, "I think the website is better for me just to read what other colleagues

and other first year people are doing and, wow - someone else is going through this, someone else is feeling frustrated that the kids aren't in the mood to work and I was planning on being in Unit 3 and I'm still in Unit 1."

Lisa, Jack, and Pat felt supported by the strategies gained from the web portal. Lisa liked how her peers "... posted what worked and what didn't, and tips and ideas." Jack's frustration with the unusually large number of snow days was alleviated when he saw his peers' postings. Indeed, many ideas were shared on how to handle snow days, make-up days, and alternative schedules. Pat appreciated the behavior management strategies shared by her online mentor. She implemented the strategies and later modified them as her confidence grew.

Immediate feedback was listed as a definite strength of the university-based online mentoring. Indeed, knowing that someone was available to help was comforting. Lisa offered, "I knew someone [my online mentor] was there for specific questions. I got quick responses, overnight." Pat appreciated not only the immediate feedback, but also the thoughtfulness behind it. "The feedback was very quick. When you posted something, people got back with a response very quickly and the responses were very thorough. So it wasn't just a casual quick little blurb."

Implications/Discussion

The five beginning teachers we interviewed all expressed how frenzied they thought their first year had been, but they all reflected positively on their chosen professions and did not indicate they would be abandoning it anytime soon. One was considering transferring to a position in a traditional school from her current assignment with "at risk" adolescents, but she expressed ambivalence about leaving a classroom that she perceived as being in real need of the caring and academic qualifications she provided.

Three participants had on-site mentors assigned to them. Besides having a mentor for the school year, Pat's principal hired a retired

teacher to assist her during the initial two weeks of her first school year. The others had mentors from their county districts with limited face-to-face contact. Due to time and distance constraints, some of the mentoring experiences were more successful than others. Participants also engaged in peer-mentoring. All reflected favorably on these face-to-face mentors.

Teacher participation in the university-supported web portal was uneven. Although each novice had access to it, they did not all seem to recognize its potential to link them to peers and experienced professionals. Jack and Pat especially lauded the help—both practical and emotional—they received there. The claim that online support is most effective when coupled with face-to-face meetings was affirmed when our university's Center of the Support of Beginning Teachers staged a symposium for the novices. All five participants endorsed this symposium. It was during those sessions that they heard more about how to use the website, met with an educator (also an online mentor) who would prove to be an invaluable resource for them, and they were able to attach names to faces.

Two participants, Sue and Carl, were just too busy to access the web portal, perhaps acting on first impressions that it would be difficult to navigate, or because of technophobia, or not even trying it at all. Carl could not even remember if he had been told about the site, but allowed that with the stress he felt in processing all the information in this new position, he may have forgotten what he was told. Although both Pat and Jack were prolific users of the site, they also indicated that they did not feel completely satisfied with some of the site's traits. Both wished there had been ways to follow a discussion thread; both said they did not feel the site was user-friendly enough, especially for people who felt they had very little time to invest in learning how to use it. Perhaps the two who had participated least on the site (Sue and Carl) felt their

on-site mentors were sufficient enough support.

Conclusion

In sum, the experiences of these five beginning teachers may add to our understanding of the complex of support that novice teachers need. The participants in this study reflected on how they felt they had been helped during their first year of teaching when they were in survival mode. Although these teachers expressed appreciation for any reinforcement they received, they unanimously concurred that they felt overwhelmed as beginning teachers. Clearly, based on the findings from these participants, comprehensive support from the university as well as from their schools and districts would not be too much for novice teachers. Any advice and help they could garner from peers, formal and informal mentors, face-to-face educational gatherings, and online responses to their quandaries all contributed to their survival strategies. They received aid from both formal and informal mentors and peers as well as from online mentoring through the university. Each of these support systems was valued by the participants in different ways. The symposium held by the Center for the Support of Beginning Teachers was a useful way to introduce the web portal, as well as to provide classroom management tips and survival skills. The participants' use of the web portal varied. Some felt too busy to access it while others were put off, anticipating, perhaps inaccurately, that it would be too difficult to use. Others reported they received invaluable specific, practical, and immediate feedback and emotional support from their university mentors via the web portal, but they were ambivalent about some of its technical attributes. Given the findings, the research team encourages the use of online mentoring through the university as well as school systems providing face-to-face mentoring for their novice teachers.,The school/university

partnership strengthens such mentoring because two institutions work in concert in order to meet novice teachers' needs. However, future online mentoring programs should consider the following recommendations.

Recommendations

Clearly, online mentoring requires the ability to navigate the chosen web portal. We cannot assume that all first year teachers are technologically savvy. While the symposium introduced the new teachers to the selected web portal, our participants needed further support in accessing and using this valuable resource. Thus, periodic face-to-face meetings with their online mentors could help reinforce usage.

The fall symposium was held in October for first year teachers hired after July 31. The spring symposium was held in March for first year teachers hired after October. Both symposia were required by local school districts. We recommend that these symposia continue and that beginning teachers in the region attend them. We also recommend that the Center develop and provide additional meetings throughout the year for face-to-face professional development and technology support. School districts should support these efforts by providing first year teachers with release time and requiring their attendance. It would also be wise to expand the existing beginners' symposium which is primarily aimed at helping new teachers learn about the online support and get trained in navigating it. This initial meeting introduces the novice teachers to other online supports; perhaps even more links could be added to the support site. Also, school administrators ought to be aware that face-to-face mentoring, although important, has its limits; new teachers can feel they are taking a risk in expressing their uncertainties in certain school cultures. The relative safety of the web portal can make these expressions of doubt less threatening. Finally, it would be ideal for new teachers if professional development schools were encouraged to build in adequate time for reflection, both online and face-to-face, into their everyday practices.

Future Research

Thus far, research on face-to-face and online mentoring has been thin and clearly that body of literature needs to be fortified. Questions to pursue include the following: What do newer, more effective and efficient school/university partnerships do with schools in a time of diminishing resources? What are complementary ways face-to-face and online mentoring offered through schools and universities can be most successful? In what ways, if any, have partner schools creatively staffed classes so that new teachers are able to access online mentoring through the university? What practical adaptations need to be made so that online mentoring offered to schools through the university is strengthened? How might the schools aid with the online training support so that novice teachers can access and use the tools available to them with ease upon entering the classroom? How might online mentoring in a school-university partnership most effectively continue into novice teachers' practices? How can school administrators in partner schools encourage new teachers' uses of online mentoring without their feeling that one more burden has been added to their loads? SUP

Appendix

Interview Protocol

1. Tell me about your mentoring as a beginning teacher.
   a. Tell me about whether you were assigned a mentor in your school of district.
   b. If your mentor was informal or unofficial, what can share about that?
2. What other kind of support did you have as a beginning teacher?
3. Looking back, what kinds of support do you wish you'd had?
   a. Please share any gaps in support that did not meet your needs.

4. Tell me about your experience with the Center for the Support of Beginning Teachers portal.
   a. Have you been using the website/portal? Why or why not?
   b. How could the portal have supported you more?
   c. Who, if anyone, encouraged you to participate on the website?
   d. What about online mentoring is appealing to you?
5. Tell me about a time when you posted on the site.

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