

## **New Teacher Induction — In and Out of Cyberspace**

Barnett Berry and Ann Byrd

Center for Teaching Quality

Carrboro, North Carolina

“Those who enter the ranks of teachers do not know how to teach, although they may know everything that is in the innumerable books telling them how to teach.”

-- William Waller, 1932

### **The Current State of New Teacher Induction**

It is 2012 — *eight decades* since the sociologist William Waller lamented the lack of support for teachers during their initial years of teaching. However, for many novices to the teaching profession, little has changed. Granted, over the last two decades the importance of teaching policy — including induction — has gained support as a spate of research reports have identified the impact of teacher quality on student achievement and have highlighted the effect of working conditions on new teacher retention (Berry, 2009). More and more states have created some kind of induction and/or mentoring program for new teachers, and in the last two decades, the proportion of novices receiving induction support rose from 41 percent in 1990 to almost 75 percent in 2008 (National Comprehensive Center for Teacher Quality, 2010). More recently, the percentage of beginning teachers working with a master/mentor teacher increased from 71 percent to 78 percent from 2004 to 2008 (Wei, Darling-Hammond & Adamson, 2010).

Yet despite these statistics indicating growing support for new teachers, only 30 states actually mandate and fund the induction programs (Goldrick, 2011), leaving many new teachers largely on their own to “sink or swim.” In one report, 87 percent of new teachers in one state reported they had a mentor, but only 17 percent of them indicated that their mentors ever observed them teach (Kardos & Liu, 2003). Participation in induction support varies widely

across contexts and content areas. For example, teachers in urban, rural, and high-minority schools were less likely to participate in programs than their colleagues in other settings. Additionally, teachers with an ESL or bilingual certification were also less likely to participate in induction activities (Wei et al., 2010).

With nearly one-fifth of novices reporting in 2008 that they spent no time practicing teaching (through internships or student teaching practicums) before they became full-time teachers, it is no surprise that so many decide to leave the profession, especially given the inconsistent induction support (National Comprehensive Center for Teacher Quality, 2010). Approximately 11 percent of new teachers exit after one year of teaching, and another 16 percent change schools, often citing poor working conditions and lack of support as the reasons for doing so (Smith & Ingersoll, 2003). And over 50 percent of novices who teach in urban schools leave within the first three years (Alliance for Excellence in Education, 2004).

These data surface a story worthy of telling: The popular Teach for America program, which places young adults in two-year teaching positions in school districts hit hard by poverty and teacher shortages, offers a prime example of how our nation devalues both pre-service preparation and induction as well as the complexity of teaching. In a news feature profiling Elias Walsh, a Teach for America novice, the young educator described his frustration as he struggled to teach his 9<sup>th</sup> grade students how to determine if  $[x+2x+1]$  "is a monomial, binomial or trinomial." How, he wondered, could he make this content relevant to their inner-city lives? What should he do when only 25 percent of his students are in the room when the tardy bell rings or when only one-third will turn in their homework assignments? Walsh's story, starkly reported by the *Chicago Tribune*, surfaced very strong feelings on his part and revealed the inherent problems with rapid-entry programs that attempt to circumvent in-depth teacher preparation.

"There have been so many bad days," Walsh reported. "Days when the kids all seem to be out of control, and I can tell that they haven't gotten anything out of what I've been saying. Those days take it out of me. It's hugely frustrating. I feel so hurt and tired I don't want to come back the next morning" (Zorn, 2001).

The monetary costs of teacher attrition are substantial. For example, in Chicago replacing a teacher who leaves the classroom costs a minimum of \$17,000. In this large district annual teacher turnover can exceed \$86 million and run into the hundreds of millions of dollars in just a few years (NCTAF, 2007).

Of course we have known for decades that even when teacher education is rock solid, effective teaching is so complex that teachers will never know all they need to know when they enter their first classrooms. And we keep raising the stakes. Today, teachers are expected to meet higher performance standards and to teach increasingly diverse students with different learning styles, learning disabilities, and limited English proficiency. What's more, what we define as a "good education" is changing, and quickly. In the "Flat World" described by Thomas L. Friedman, all students need to know how to participate fully in the information-charged global economy by possessing and using data-driven, critical thinking skills, team-working expertise, an understanding of different cultures and languages, and the ability to participate fully in America's democratic and civic life (2005).

Despite the growing knowledge base regarding the progressive development of teaching efficacy (National Academy of Education, 2005), including David Berliner's (1986) insightful analyses of critical differences in perception, routinization, and problem solving between novices and expert teachers, teacher induction programs have trailed behind the research. However, for the most part, policymakers still view teaching as simple work (Berry, 2011). And in many ways,

researchers, in their efforts to find the policy silver bullet, can make matters more complicated and confusing.

For example, some research — including the well-funded Mathematica investigation that costs over \$14 million over five years — has shown little relationship between induction and student achievement and the retention of novice teachers (U.S. Department of Education, 2009). However, a closer examination of the study, which used a randomized controlled trial (RCT) method to compare an experimental “comprehensive” induction treatment against a control comprised of existing “less comprehensive” programs (i.e., business as usual) in 17 urban school districts, revealed serious flaws in program implementation. Only about 20 percent of the participating teachers appeared to have been fully involved in the “treatment” offered by the induction programs studied. And the treatment and control groups actually had similar experiences. Treatment teachers reported having only 12.5 more hours of mentoring support over the entire school year (which equates to about 20 more minutes a week) — hardly enough to make a difference in learning to teach. In a comprehensive study of induction programs in Illinois, SRI International researchers found that not all programs meet the required minimum hours of weekly support – and rural teachers, who teach some distance from those who manage the efforts, are less likely to receive the prescribed supports (Weschler, 2010).

As Kapadia and Coca (2007) concluded:

Induction programs vary considerably in their goals. Some are designed to acculturate new teachers into their schools, while others are geared toward developing their instructional practice. Still others are designed to evaluate, assess, and perhaps even weed out those who are ill suited for the demands of teaching. Differing goals lead to wide variations in the content and organization of induction programs. Some consist of only a single orientation meeting in the beginning of the school year, while others are highly structured, multiyear programs that offer a range of assistance to new teachers beyond orientation sessions, including mentoring and professional development seminars. The management and supervision of

induction programs also varies widely: They may be administered by individual schools, school districts, university-based teacher education programs, or other external organizations.

These inconsistencies in induction and mentoring programs can lead to devastating results for new teachers. While recent research has found that teachers who participate in a quality induction program are two times more likely to remain in teaching, only about one percent of the nation's novices have access to them (Smith & Ingersoll, 2003). Granted much more needs to be learned about the impact of new teacher induction programs.

As Ingersoll and Kralik (2004) remind us, the current evidence offers little guidance on which induction components are more likely to influence particular outcomes.

In this paper, we draw on our experiences with working in building virtual communities of teachers and a pilot program to examine the prospects for increasing consistency in the effectiveness of new teacher support through online networks. While not intended as a substitute for high-quality, face-to-face mentoring experiences, online or "virtual" support can be structured to encourage highly valuable, frequent, and focused interactions. In this way, virtual programs can fill the gaps of existing mentoring and induction efforts that are too frequently constrained by mentor supply, teacher scheduling, and school politics (Schlager, Fusco, Koch, Crawford & Phillips, 2003).

### **Quality Induction Programs**

High quality induction programs contain some common features, including providing novices with the following: (a) a mentor from the same field, (b) common planning time with other teachers in the same subject, (c) regularly scheduled collaboration with other teachers, and (d) an external network of teachers (Alliance for Excellent Education, 2004). In face-to-face mentoring or induction programs, it is not always possible to meet these conditions, especially in

light of the recent recession and the enormous state budget shortfalls that have pushed administrators to cut many critical education programs, including those supporting new teachers.

Quality mentoring — critical to sound induction programs — is largely dependent on the availability of teachers chosen or assigned to mentor and the degree of training and support they receive. Quality mentoring is also dependent on mentors' subject matter or grade level expertise as well as their availability for their assigned novices (Kapadia & Coca, 2007). Smith and Ingersoll (2003), using large scale data from the School and Staffing Survey, found no relationship between mentoring and higher teacher retention rates when mentors were *not* in the same field or grade level as the novices they support. However, they found that external networking and “open communication” with administrators can have a salubrious effect on novices' decisions to remain in teaching. Recent research undertaken in Chicago concluded that strong school leadership and supportive veteran faculty are the keys to new teachers' “reports of good teaching experiences and intentions to continue teaching.” Indeed, the researchers found that the quality and utility of mentors are “highly predictive” of novices' plans to continue to teach (Kapadia & Coca, 2007).

### **An Innovative Model of Support for a New Era of Teaching**

In the face of a technology-infused, knowledge-intensive global economy, new demands are placed on 21<sup>st</sup> century workers and citizens and the schools that prepare them. Good teachers of tomorrow must be well versed in new technologies as well as in technologically-infused thinking and action. Participation in virtual communities of practice and the ability to sharpen performance through collaboratively building knowledge are becoming commonplace in forward-thinking businesses (Wenger, McDermott & Snyder, 2002). Facility in virtual community building is a skill that teachers can use to help their students work with their peers,

produce knowledge (not just learn it), and become citizens of the world. Global trade in pedagogy and media-rich pervasive learning opportunities are 21<sup>st</sup> century challenges and opportunities for America's 3.2 million teachers and the students, families, and communities they must serve (Berry, 2011). New paths for educators, personalized learning, and participatory media can transform the teaching profession, if teachers are ready. Public spaces that become personal learning environments and mobile technologies that access an even wider net of resources can transform learning and doing, if teachers are ready. Beginning a teaching career as a member of a professional virtual community is a step toward building that readiness.

In a more immediate context, virtual mentoring efforts can fill the gaps to more consistently deliver high quality induction for new teachers. Virtual support networks, freed from the constraints of physical proximity and a limited school day for communication, can offer novices access to expert educators regardless of their individual schools' climates or resources. Trained, online mentors can be drawn from much larger pools of seasoned teachers than those typically available to school districts. Virtual environments make it easy to communicate in both group and private discussion venues, depending on a new teacher's needs, during the times that are most convenient for novices and do not impinge on the already crowded school day. Virtual networks of external mentors can also offer a confidential and trusted source of information and advice. Privacy, confidentiality, immediacy and flexibility are unique advantages of online mentoring.

These advantages become evident when we consider potential applications of virtual networks. For example, a lone physics teacher in a building can connect with other physics teachers and take advantage of their expert assistance for a particular need. A teacher struggling with an ineffective curriculum may have no one in-house to turn to, particularly if the current

plan was created by his colleagues down the hall. Regular professional collaboration or conversations desired by a new teacher may not be offered or supported by veteran colleagues. In traditional mentoring and induction programs, each of these individuals could easily be left to struggle and likely add to financially and academically damaging turnover rates. An investment in virtual induction programs can make a difference in the long term, even though our experience reveals that much needs to change in order for school districts (and universities and non-partners) to support their new recruits. Our experience in developing a virtual mentoring pilot with the University of Connecticut teacher education graduates tells a powerful story.

### **Supplementing Connecticut's BEST: Lessons from a Virtual Mentoring Pilot**

#### **Teacher Education Reform and Induction**

New teachers who receive support through formal mentoring programs in their early years of preparation and service are better able to serve the needs of their students, are more satisfied in their professional roles, and are more likely to continue in the profession (Ingersoll, 2001). For over five years (2005-2010), the Teachers for a New Era (TNE), a nationwide teacher education reform collaborative, provided resources for a select group of universities to follow and support their graduates, who could end up teaching almost anywhere in the nation. In addition to providing assistance to their graduates in building effective teaching practice, TNE offered an opportunity to gather data on graduates' ongoing need for knowledge, skill-building and professional connections. We helped identify online support as one model of external networking with great capacity for connecting these new teachers to support resources. The University of Connecticut, one of the 11 TNE institutions, drew on the Teacher Leaders Network (TLN) – a vibrant virtual community of highly accomplished teachers supported by the Center



for Teaching Quality – to connect recent graduates and practicing Connecticut teachers with expert educators.

To most education observers, UConn’s graduates should have been fairly well served without a supplemental virtual mentoring opportunity. The Connecticut teaching quality system has been well documented and is often described as one of the most comprehensive in the nation. The state’s Beginning Educator Support and Training (BEST) program, which allocates approximately \$3,300 per new teacher, serves as its cornerstone (Wilson, Darling-Hammond, & Berry, 2001). All new teachers are to receive mentoring from trained expert teachers in their field (Connecticut State Department of Education, 2006). The mentors must be formally assigned to novices within ten days of commencing teaching. All mentors are trained and “are expected to provide instructional support to novices and help them reflect on their practice.” In their second year, the new teachers compile portfolios consisting of lesson logs, videotapes, teacher commentaries and student work. The mentoring efforts are supplemented by required subject-specific seminars to help novices deepen their knowledge and meet the portfolio requirements. Then, two trained assessors – certified to teach in the candidate’s area – evaluate the portfolios, which are designed much like a mini-National Board Certification assessment. The portfolios provide rich data about the quality of assignments, the teachers’ skill in assessing student learning, and their ability to modify their teaching based on evidence of student learning. Teachers who do not pass the portfolio requirements by the end of year three cannot earn the state’s provisional license and cannot continue to teach in Connecticut (Youngs & Bell, 2007).

However, the solid thinking behind Connecticut’s support initiatives does not always align with the actual experiences of new teachers. The BEST program requires only one year of mentoring (support in years two and three are at the discretion of the district), and novices do not

always have access to the content-specific expertise they need. In addition, as the virtual mentors in this project found, the BEST portfolio requirements often produced more anxiety and confusion than growth for teachers already stretched thin by the demands of a new career (C. Bell, personal communication, January 15, 2007). As Feiman-Nemser and Carver note (in Chapter X in this volume), “whether mentoring occurred on a regular basis often depended on the principal’s commitment to arrange the schedule or the mentor’s commitment to find the time.” They also point out that because mentors in Connecticut also serve as full-time teachers, their work with new teachers is often “squeezed into planning hours and before or after school.”

### **A Virtual Mentoring Pilot**

Beginning in the 2006-07 school year, six virtual mentors from the Teachers Leaders Network were chosen to support 52 K-8 University of Connecticut new teacher graduates. Mentors were selected for their demonstrated skill in working with new teachers online in other virtual mentoring programs, as well as their content expertise and grade level experience. Demonstration of these dual knowledge strands was crucial in the mentor selection process, because as Berliner (1986) reminds us, “experienced and expert practitioners very often lack the ability to articulate the basis for their expertise and skill” (p. 7). Typically, administrators may not have a full sense of whether a potential mentor is capable of this type of articulation that is crucial for effective mentoring communications, but the wide spectrum of candidates available in a virtual context can ensure that chosen mentors demonstrate this capacity. For this pilot, we were fortunate to be able to draw on teachers who had specific previous experience in a virtual environment, but that alone need not be the benchmark for potentially effective online mentors. National Board Certified Teachers, who have successfully completed a year-long process of

standards-based reflection on their teaching practices, are also likely to engage in the type of analysis and dissection of instruction that can be critical for novice teacher support.

The program was originally designed to serve K-8 teachers, so selected mentors taught in elementary and middle school settings; later, to build a larger community, novice high school teachers were added to the group. Using SRI's "TappedIn" electronic platform, the pilot offered the novices access to the TLN mentors (at approximately a 7:1 ratio) available for asynchronous discussion any time. Although we had attempted to introduce the platform and our protocols to the novices before they graduated, university bureaucracy and timelines kept us from doing so.

Even though five of the six mentors had deep experience in working with novice and pre-service teachers online, the Center for Teaching Quality prepared the mentors by offering individualized training in use of the TappedIn platform. The six mentors also met to discuss hallmarks of high-quality mentoring (drawing on the research reviewed herein), set benchmarks for success in the TNE-University of Connecticut venture, and examined lessons learned in other e-mentoring projects. Case studies of other e-mentoring situations and issues were presented for discussion and a set of simple mentoring norms was developed, such as "support new teachers before offering advice," "ask probing questions to help mentees think through their issues" and "assume good intentions." We learned that this establishment of guiding practices and goals is not a step to be overlooked. Within the scope of this project, guidelines focused on mentor activity, but we believe making these norms known early and gaining the consensus of every vested participant within the project could have been an important component for gaining initial trust in the community. We attempted to work with UConn faculty in establishing a relationship between the virtual mentors and the novices before they graduated — ensuring stronger connections between participants and the program with which they had an existing relationship.

However, poor timing and other university priorities got in the way of establishing much needed connections. In future projects this opportunity for building relationships earlier in the process is one that won't be missed. Despite these problems, progress was made.

### **Building Trust Virtually**

The issue of establishing trust and commonality became a central concern in the early stages of the project. We found that, while new millennium teacher education graduates may be technologically savvy and adroit at internet-based social networking, the unfamiliar nature of the electronic platform itself produced some hesitation from potential participants. Even the digitally literate do not always know how to fluently use a common platform, particularly when context is rooted in a professional learning community instead of social networking. The new teachers had little or no experience in participating in online professional communities, structured around sharing common concerns and needs. In future projects, we would seek to incorporate the virtual networking platform more fully into students' coursework prior to graduation, so that these initial technical obstacles could be easily overcome. In the end, about half of the teacher education graduates who indicated interest in the spring actually registered to participate.

Not so readily navigated are the challenges in establishing trust among the mentees, and then between the novice teachers and their new mentors. The project was launched after the teacher education students graduated, so many participants did not know one another initially and none of the mentors had prior relationships with the novice teachers. In addition, university faculty support — including instructors from both the education school and the arts and sciences — never fully materialized. These were critical issues in developing trust and open communication. Building communities of practice is an exercise in sharing and seeking knowledge, dynamic in nature and dependent upon building a safe space for testing ideas

(Wenger, McDermott & Snyder, 2002). Relationships matter in virtual communities, and the most difficult phase of the project came early, in finding commonalities and making personal connections. However, we believe that the virtual platform simply laid bare similar challenges in building trust that accompany all mentoring relationships. The novice teachers here all did share a commonality — their work with University of Connecticut education faculty — but that was not necessarily enough for them to initially trust their colleagues and the mentors selected by their faculty. Similarly, in face-to-face mentoring, mentors may take it for granted that teaching at the same school is sufficient to establish trust. In any type of mentoring, there is simply no substitute for the time investments, accountability and openness that slowly grow into trusting, productive relationships.

To help foster an environment where the novice teachers could feel free to explore and question, structures for e-mentoring group interactions were deliberately left fairly open with the exception of the established norms mentioned above. Research on creation of virtual communities indicates that groups evolve and develop in unpredictable, “organic” ways and attention to content and purpose can be eclipsed by overly prescriptive structures (Wenger, McDermott & Snyder, 2002, p. 51). The mentor team purposely chose a whole group mentoring/discussion format, rather than assigned relationships or groupings. A small group of special education teachers did occasionally break off (with the mentor who taught special education) for issues-based chats, but most of the conversation happened in a whole-group, threaded-topic model. There were no message requirements or time limits attached to participation, for either mentors or novice teachers. Topics emerged as mentors perceived they might be helpful, and as new teachers hit roadblocks and asked questions; the content was determined by the needs of the community.

## **Developing the Community**

Despite some of our challenges, powerful and important issues emerged between the 25 novices and six TLN mentors in the virtual conversations after a few weeks. In the first few months of the project, about 15 new teachers actively engaged in posting messages and all “lurked,” meaning they read regularly but did not post. About 50 messages were posted monthly, a rate that remained fairly constant throughout the eight months of the project where data were gathered. High-interest topics drawing the greatest response included those related to classroom management, school climate, problems with administrators, stress relief, and managing the workload of teaching. For these novices, who graduated from the University of Connecticut’s highly acclaimed five-year teacher education program, support in their content areas was not their foremost concern. In fact, with the exception of special education teachers, who regularly posted specific questions on curriculum and instruction, questions around disciplinary content were rare at first. While this can be interpreted a number of ways, we believe the initial conversational focus suggests that the novice teachers were most critically concerned with issues that had an immediate impact on their classroom environment and their general school experience. In other words, they were so concentrated on putting out the fires, that their long-term impact on students’ learning was initially placed on the back burner. This experience coincides with other long-standing research on new teacher needs (Gold, 1996).

A second group of mentees joined the original group in February, bringing the total number of mentees to 34. The new group was from a masters-level class instructed by a faculty member who was interested in connecting her students (who were also early-career teachers) to an online learning community and being an active part of the follow-up research on new graduates. The addition of new participants boosted online traffic and turned conversation in new

and productive directions. The original group was re-energized when someone from the university was listening and posted more messages around curriculum, as well as their preparation for teaching. We interpreted this shift in discussion as an indication of the group's greater comfort level with their existing faculty, and the instructor's questions tended to draw more responses from the novices. While participants' trust in the virtual mentors and the platform itself were growing, there was no doubt that previously existing relationships instilled the greatest confidence. In future projects, we would hope to be able to introduce mentors and mentees earlier within their training, so that these relationships can grow organically over time.

### **What Matters to New Teachers**

Early conversations were built around introductions and non-threatening topics. Despite the state's BEST program and the high quality preparation UConn graduates receive, a number of novices quickly reported their disappointment with the inadequacy of their induction and mentoring supports. One new teacher asserted:

I am a first year teacher and I didn't get a mentor assigned to me until the end of September. My mentor is a third year teacher (not tenured) and in a new highly stressful position this year (special education, SED). Maybe twice the entire year she has initiated any type of contact, simply by asking, 'How is everything going?' Her support and guidance is greatly needed. In my district the mentor/novice pair is 'supposed' to meet weekly and keep a journal of what was talked about. I mentioned this to her and she kind of nodded it off.

E-mentors suggested that these novice teachers take the initiative to seek support from their assigned mentors, ask their mentors specific questions and look for informal, on-site assistance from teachers whose work they admired when formal mentoring relationships were inadequate.

From the beginning, the TNE e-mentoring service was positioned as a supplemental network, for issues and questions that were not being adequately addressed or were seen as too sensitive or risky for new teachers to raise with their senior colleagues. One novice noted:

I teach in a middle school in the South End of Hartford, CT. For the first few weeks, things were quiet, but then things started to slip, and this last week, all hell broke loose. Over two days just in my cluster alone we had a fight in the hallway between two rival boys, a beat-down in the parking lot, and then a brawl between four girls in the hallway. I was forced to help break up two of these.

This new teacher posted regularly about his distress over what seemed like an out-of-control building climate. Veteran teachers in his school told him that this was “the way it is here,” leaving him feeling as if a new teacher had no influence or options in proposing strategies to improve climate. TLN e-mentors suggested he work on things he could control, including relationships and order in his own classroom, as well as the tactic of seeking one or two like-minded companions to begin a dialogue on change in this school. Over several months, the teacher gained some confidence in his ability to manage his own classroom and began thinking about whole-school improvement. Since his assigned mentor was one of the teachers who asserted that the school’s climate was unchangeable, the e-mentoring forum gave this new teacher space for optimism and a plan to begin thinking about his own emerging capacity to lead.

Conflicts with administrators were a frequently occurring theme. A novice teacher who disagrees with an administrator, or has been singled out by an administrator for a professional weakness or violation of policy is particularly vulnerable. An in-building assigned mentor may be very helpful; that mentor may also be seen as colluding with the administrator. One great advantage of external networks is confidentiality and the expectation that supportive advice will be offered without prejudice. One first year teacher noted with grave concern how she handled a sensitive student situation and the effect on her relationship with the school’s assistant principal:

This past Friday [student] mentioned to me that he is thinking about dropping out of school, since he is already a 17-year old freshman, and ‘probably will end up in jail like his brother anyway.’ My team members had never heard him talk like this before, so we decided to e-mail EVERYONE (assistant-principal, guidance



counselor, social worker, resource officer) about this student to try to get him some help. Well, [Wednesday], his assistant principal came to tell us that I handled it the wrong way. He told me that he took the e-mail to mean that this student was about to commit suicide (the word was never said in our e-mail) because we said we were ‘very concerned’ about this student, and we should’ve gone to talk to him ASAP, and not ‘dump and run’ like we did with this e-mail.

Immediately, several of the virtual mentors responded, letting this first-year teacher know she did not do anything wrong. One mentor shared a personal story about her own student, who required this kind of additional attention and care. This mentor noted the novice followed notification protocols important for the student but also required by law. The mentor reinforced that the email was a suitable mode of communication for this situation as it allowed her to reach all parties more quickly with the information. The experienced teacher also commented that the assistant principal may have been feeling a little “panic” about not seeing the email for a few days and felt he had been put in a position where he did not respond soon enough (when the novice teacher had established a paper trail).

Another mentor chimed in right away, praising the first year teacher’s actions. This mentor explored with the novice the value of going to the assistant principal and not shying away. Several questions were suggested to pose for the assistant principal: What would be a more appropriate way to handle this in the future? Are there protocols for communication when teachers are concerned about student comments? These questions were suggested so the novice could press the vice principal to take ownership with her of the issue. Although the first year teacher felt like she was “picking a battle,” she was encouraged to be proactive, because this issue involved the welfare of a student. The mentor advised the novice to always consider what is right for a student first.

Then a third mentor entered the exchange. This mentor spent some time describing administrator *over-reactions* and *under-reactions* and how administrative duties often shape their

responses. She advised the novice that as a teacher, she has different perspectives about the student – and should not lose them. A fourth mentor offered pragmatic next steps much needed for the novice whose confidence was shaken. Other novices joined the conversation, sharing similar moments of conflict with authority, and the conversation moved into the complexity of developing and maintaining relationships with administrators. The online community began articulating a set of common ideas and vignettes on power, responsibility, and professional behaviors.

### **A Few Initial Lessons**

Several lessons emerge in considering these conversations as a lens for examining the merits of face-to-face and virtual mentoring. First, none of the mentors in the last example had their own preconceptions about this assistant principal to bring into the conversation. This is a strength unique to external networks. Virtual mentors are not in the mix of personalities and dynamics of the school culture, and thus not responding to a conflict or situation with personal assumptions about character, blame, or the “right thing to do.” As a result they are more likely to seek and trust data from novices about the school culture in helping them traverse rough and complex situations. Writing about their experiences also helps novice teachers reflect on dynamics of a problem and possible solutions. The three vignettes presented illustrate the occasional need for an outside perspective, even when teachers are part of a well-designed face-to-face mentoring program.

Second, many socio-political as well as technical issues and needs cannot easily be addressed by assigned face-to-face mentors, who may be part of a problematic culture. Often virtual mentors, outside of school politics, can offer more objective advice and fill in gaps created by weakly implemented induction programs, or help novice teachers develop perspective

on issues embedded in their school contexts. In this e-mentoring initiative, we observed how varied new teacher needs may be — and while content is important, context is even more critical. Sound mentoring on site-specific needs (i.e., curriculum, common assignments and assessments, instructional norms, etc.) is important, but a mix of inside and outside support may be ideal in meeting new teachers’ needs.

Third, virtual mentoring can provide advice from several expert teachers and can do so 24/7. The final conversation above took place from a Wednesday to a Sunday, giving the novice time to gain perspective through four experienced teachers sharing and building on each other’s counsel, before making her own decision, enhancing her own capacity to function in her school setting. The knowledge-building process was both collective and collaborative, built on multiple perspectives. In a virtual community setting, novices can “bank” archived lessons and advice that can be put to use later. Online exchanges produce a “live curriculum” that can work for a variety of novices, a benefit of having a group of mentees and mentors in continuing dialogue.

Finally, virtual mentoring offers the opportunity to build a community of resourceful beginning teachers while also serving to enhance the knowledge and skills of the entire learning community. Mentors and university staff can learn from the experiences and preparation of the first year teachers in the community, as the flow of questions and answers and group learning goes both ways.

### **A Look Back and Forward**

Insights gained from this pilot experiment with virtual mentoring fall into two key areas: lessons about the use of technology as well as the dynamics around relationships necessary for building authentic community online. In order for technology to function most effectively, it basically needs to become “invisible” for those who are using it – secondary to the purpose of

the community as a support mechanism for participants to develop meaningful, trusting relationships and exchange complex thoughts and ideas. The TappedIn platform used for this work was neither easily accessed nor inviting to use. Most participants indicated they were familiar with it but did not like the interface. Instead, it was a technological backslide as compared to much of the social networking media a number of the participants were accustomed to using.

Getting smarter about the integration of technology into the daily work of teachers, both in their own learning and in that of their students, requires that we become more resourceful about emerging technologies, based on open-source software that can be easily transferred from one online experience to another. An online teacher induction program that will meet the threshold of easy accessibility must have the following: intuitive access to different interactive communities (perhaps grouped by grade level, subject area, topic, and/or time of school year – e.g. beginning of school chats/questions like classroom management, open house, parent conferences); an interface that notifies the community member of activity that may be of interest, based on highly individualized profiles that guide notifications; a screen-friendly appearance and navigation offering a variety of ways to connect – chatting live (audio, text and video), asynchronous discussion threads, and easy-to-find resources that are organized into discreet categories.

Being mindful of the need for constantly upgrading technology is absolutely critical to the success of an online community; however, paying attention to the building and maintaining of relationships among the community members themselves is of even greater importance. Without trusting and open relationships among members, discussions of the nature that authentic mentoring requires will not be possible since the mentor/mentee relationships rest upon the

ability of those involved being comfortable in exposing their vulnerabilities and being open to seeking help from others whom they likely view as superior to them in ability. Thus, the support of the mentors in navigating these relationships, complicated in some ways and simplified in others by online delivery, must be supported as well. Mentors also need mentoring of their own – an element of support far too often disregarded.

To address this oversight, the Center for Teaching Quality has recently completed its fifth cohort of online training of Virtual Community Organizers (VCOs) – teachers who participate in a series of online webinars to learn how to serve as leaders of successful online communities – not just communities of mentors working with novice teachers, but communities that can be developed to operate in a variety of settings aimed at achieving different goals and outcomes. Our experience in developing this training and support draws upon the work of Wenger and his colleagues (2002), who note that the purpose of an online community of practice is to discover its own energy and commonalities. VCOs who take part in our training learn how to make this discovery a deliberate process with clearly communicated outcomes made known to all participants working toward a common set of goals and constantly monitoring its progress.

However, much more needs to be done to restructure how school districts as well as their university and non-profit partners, prepare and support their new recruits into teaching. No matter what gaps that virtual mentoring and community can fill, many new recruits struggle because of the lack of consistency between how they are trained and what they are expected to teach (and under what conditions). Virtual mentoring can help new recruits survive — but it cannot necessarily help them thrive.

## Conclusions

While our pilot, modestly funded with the University of Connecticut's Teachers for a New Era funds, suggests that it is possible to build a functional and effective virtual community to support novice teachers, much more study and investments are needed to fully understand what kinds of technology, program designs, and virtual mentoring skills and training are necessary. We learned about how to organize a community of virtual mentors and novices — and how to establish the relationships and trust necessary to sustain both of them. And we continue to build upon those lessons in our current work with more than 15 online communities that comprise the 1,500 teachers who are now part of Teacher Leaders Network.

Research has clearly shown that novices are more likely to stay in teaching when they experience comprehensive induction programs including a mentor from the same field, common planning time with other teachers in the same subject, regularly scheduled collaboration with other teachers, and an external network of teachers. Given school organizational structures and funding, these features are not easily assembled. However despite the growth of induction and mentoring programs, and the high proportion of teachers who participate in them (as in Connecticut), new teachers still rarely receive the comprehensive kind of supports they need. Even in states with sound and relatively stable programs, novices find themselves seeking external advice and counsel critical for their growth as a teacher and necessary for them to remain in their school or in their profession. This paper, drawing on a unique experience and data source, suggests that online mentoring, if fully developed and funded, may provide a unique opportunity to offer novice teachers the knowledge and skills they seek and their students deserve.

Our experience in piloting a virtual mentoring project in Connecticut leads us to several (tentative) conclusions — and importantly — a call for more research:

- Better research is needed in studying the effects of induction and mentoring on new teacher retention. Most researchers do not have or use tools needed to better understand the differential effects of different kinds of programs, and the actual content of them. Induction and mentoring make a difference, but under what conditions and for whom? Researchers need to have better descriptions of programs and participants so their variables can be more fine-grained and their analyses and conclusions more specific. How much do these efforts cost? What kinds of supports do different kinds of new teachers need? How can these “more-than-one-size fits all” be developed and maintained?

1. There is a role for technology to play in inducting and mentoring new teachers. The privacy and flexibility of virtual mentoring and the asset of getting multiple perspectives seem to provide a unique support for struggling novices. The question: how does a virtual effort, led by a university, dovetail with what a state or district may provide? How can participation in such a virtual community help not only novice teachers struggling in a new practice, but inform the programs that prepare as well as the districts that hire them? There is growing political pressure for universities, like the University of Connecticut and other TNE institutions, to track and support their graduates. However, there is no policy infrastructure in place to do so and no way to know whether university programs are necessarily aligned with what other providers offer to novices.

2. Virtual learning and social networking occur every day, but there is little research on which technologies are most effective in promoting novice teacher development. In addition, little is known about how to best staff and support these initiatives. New research on virtual efforts like ours – and others — is much needed.
3. Universities, even with a charge and funding to engage in new teacher induction, are not set up to do so. What would it take to encourage university faculty to expend time in supporting their graduates? Additional analyses are needed to understand the organizational and financial costs associated with universities tracking and inducting their former teacher education students.

We conclude with far more questions than answers, but questions are often the foundation of any community of practice. Wenger and colleagues (2002, p. 9) remind us that knowledge is an “accumulation of experience;” such knowledge is more process than “information”, and is best built and shared in a community of practice. We learned more about new teacher needs — which much like one finds in the literature — are less about content and more about managing classrooms and school culture as well as administrator relationships.

We cannot claim complete success — as we did not engage as many novices as we had hoped. We were not limited by the technology – but tools other than TappedIn are needed. (And we are pleased that as a result of our experience with TappedIn we have been working with a range of new partners in designing more robust platforms consistent with the needs of 21<sup>st</sup> century schools and the New Millennium recruits who are now teaching in them.) Our largest barrier was the lack of strong connections between the university faculty, their teacher education students, and the virtual mentors. University faculty may have difficulty placing a priority on inducting their graduates, and the earlier this issue can be addressed in the design of virtual



mentoring programs, the greater the opportunity for alleviating this central challenge. Thus, the work we are continuing to develop, limited at this point to K-12 teachers in our network who are interested in learning to and supporting online communities, must be expanded to university faculty, undergrad and graduate students and even their future colleagues and administrators with whom they will work. Creating this as a priority to deepen the community of online members – all of whom have a vested interest in the success of novice teachers is first and foremost.

## References

- Alliance for Excellent Education. (2004). *Tapping the potential: Retaining and developing new high-quality teachers*. Washington, DC: Author.
- Berliner, D.C. (1986). In pursuit of the expert pedagogue. *Educational Researcher*, 15(7), 5-13.
- Berry, B. (2011). *TEACHING 2030: What we must do for our students and our public schools ... now and in the future*. New York: Teachers College Press.
- Berry, B. (2009). *Children of poverty deserve great teachers: One union's commitment to changing the status quo*. Washington, DC: National Education Association.
- Connecticut State Department of Education (2006). *A guide to the BEST program for beginning teachers 2006-2007* [Electronic version]. Harford, CT: Author. Retrieved June 1, 2007, from [http://www.sde.ct.gov/sde/lib/sde/PDF/BEST/beginningteachingguide/bt\\_guide.pdf](http://www.sde.ct.gov/sde/lib/sde/PDF/BEST/beginningteachingguide/bt_guide.pdf)
- Friedman, T. (2005). *The world is flat: A brief history of the twenty-first century*. New York: Farrar, Straus & Giroux.
- Gold, Y. (1996). Beginning teacher support: Attrition, mentoring, and induction. In Sikula, J.(ed). *Handbook of research on teacher education: A project of the Association of Teacher Educators*. New York: MacMillian.
- Goldrick, L. (2011, forthcoming). *State policies on new teachers: 2011*. New Teacher Center: Santa Cruz, CA.
- Ingersoll, R. (2001) Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534.
- Ingersoll, R.M. & Kralik, J.M. (2004). *The impact of mentoring on teacher retention: What the research says*. Denver, CO: Education Commission on the States.

- Kapadia, K., Coca, V. with Easton, J.Q. (2007). *Keeping new teachers: A first look at the influences of induction in the Chicago public schools*. Chicago: Consortium on Chicago School Research at University of Chicago.
- Kardos, S., & Liu, E. (2003). *New research finds school hiring and support falls short*. Cambridge, MA: Harvard Graduate School of Education. Retrieved on June 30, 2011, from <http://www.gse.harvard.edu/news/features/ngt04222003.html>
- National Academy of Education (2005). *A good teacher in every classroom: Preparing the highly qualified teachers our children deserve*. San Francisco: Author.
- National Commission on Teaching and America's Future (2007). *The high cost of teacher turnover*. Washington, DC: Author.
- National Comprehensive Center for Teacher Quality (2010). *Teacher preparation data tool*. Washington, DC: Author. Retrieved July 15, 2011, from <http://www3.learningpt.org/tqsource/datatool/PrepQuest.aspx>
- Schlager, M., Fusco, J., Koch, M., Crawford, V., & Phillips, M. (2003). *Designing equity and diversity into online strategies to support new teachers*. Presented at NECC 2003, Seattle, WA. Retrieved June 1, 2007, from <http://tappedin.org/tappedin/web/papers/2003/DesigningEquity.pdf>
- Smith, T.M. & Ingersoll, R. (2003). *Reducing teacher turnover: What are the components of effective induction?* Paper presented at the annual meeting of the American Educational Research Association, Chicago.
- U.S. Department of Education (2009). *Impacts of comprehensive teacher induction results from the second year of a randomized controlled study*. Washington, DC: National Center for Education Evaluation, U.S. Department of Education.

- Waller, W. (1932). *The sociology of teaching*. New York: Wiley.
- Wei, R.C., Darling-Hammond, K. & Adamson, F. (2010). *Professional development in the United States: Trends and challenges*. National Staff Development Council: Dallas, TX.
- Wenger, E., McDermott, R. & Snyder, W.M. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston, MA: Harvard Business School.
- Wechsler, M.E., Caspary, K., Humphrey, D.C., & Matsko, K.K. (2010). *Examining the effects of new teacher induction*. Menlo Park, CA: SRI International.
- Wilson, S.M., Darling-Hammond, L., & Berry, B. (2001). Steady work: The case of Connecticut's school reform. *American Educator*, 25(3), 34-39, 48.
- Youngs, P. & Bell, C. (2007). *When policy instruments promote reform-oriented practice: An analysis of Connecticut's policies related to teaching and learning*. Paper presented at the annual meeting of the American Educational Research Association.
- Zorn, E. (2001, February 6). Education equation often complicated for new teacher. *Chicago Tribune*. Retrieved on July 1, 2011, from [http://articles.chicagotribune.com/2001-02-06/news/0102060048\\_1\\_math-problem-new-teacher-teacher-shortages](http://articles.chicagotribune.com/2001-02-06/news/0102060048_1_math-problem-new-teacher-teacher-shortages)