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Stem the Outflow:

Strengthening Communities of Practice to Stabilize the U.S. School Teacher Force

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Abstract

The U.S. teacher shortage places pressure on schools financially and structurally; lowering the rate of teacher attrition could alleviate reported instability of school communities and potentially improve the working communities within those schools. Ingersoll found, in cases of departure from the profession, 42% of teachers reported job dissatisfaction and pursuit of better job opportunities, while instances of movement to other schools were mostly attributed to “low salaries, lack of support from the school administration, student discipline problems, and lack of teacher influence over decision-making” (2001, p. 522). Considering limiting elements of school infrastructure and professional development that tend to block recommended ongoing, collaborative learning, school administrations seem to be shortchanging communities of practice in favor of formal learning, streamlining and organization. Understanding that many public school systems operate under budgetary constraints, cloud-based Web 2.0 tools will be examined for their potential for improving the form and function of communities of practice. This paper seeks to examine if weakness in professional communities of practice could be a significant factor affecting teacher attrition in the United States and provide suggestions for integrating technologies to build or strengthen existing communities of practice.

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High rates of turnover within the U.S. teaching community, which have been directly tied to the national teaching shortage, affect teacher development and student performance negatively. Investigating the factors that influence departing teachers may help to strengthen U.S. schools by reducing teacher attrition and improving professional communities. A literature review of current practices and a pedagogical review of theories underlying social learning systems will be completed to examine factors affecting teacher turnover and the efficacy of formal and informal methods of professional development in school communities.

Communities of practice—where knowledge is created as a result of negotiation between individuals engaged in an ongoing, shared process of information gathering and practice—have a historical grounding in master-apprentice relationships and occur spontaneously in organizations today (Lave, 1991; Wenger, 1998). They are places of growth, collaboration, innovation and improved practice that occur for the benefit of the profession and the development of the individual. At the same time, modern school structures, including infrastructure, organization and professional development, may actively work against the formation of informal communities of practice between faculty members and rob schools of stability, resources and invested educators.

A Pedagogical Perspective: Communities of Practice

Communities of practice, a term coined by Jean Lave and Etienne Wenger, refer to naturally occurring associations of people that compose the base of social learning systems (Wenger, 2000). These learners are aligned by common interests and engaged in ongoing, shared exploration and practice (Wenger, 2000).

Wenger has described three core elements that identify genuine communities of practice: domain, community and practice (2007). *Domain* describes the boundary separating outsiders from members of the community, as determined by interest and shared desire for development. *Community* describes the collective, collaborative work done through knowledge, identity and relationship building. *Practice* is the maintained interaction between members of the community to develop a toolbox of shared experiences and resources to be applied and revised in the field.

As Lave & Wenger observe, communities of practice involve situated learning where members take on roles as old-timers and newcomers (1991). Newcomers learn from old-timers, and the old-timers depend on the newcomers for the continuation of the community of practice (Lave, 1991). In many ways this relationship reflects that of apprentice and master from traditional artisanal communities (Lave, 1991). Communities of practice are not pre-arranged teams, functional units or networks (Wenger, 1998). Membership is flexible, identity is based on shared experience, not relationships, and the groups only last as long as members find them interesting (Wenger, 1998).

Because of the diaphanous nature of this social learning system, effective support and maintenance often eludes administrators. They might unintentionally set up boundaries and structures that isolate individuals and remove the potential benefits of shared experience and

knowledge (Brown & Duguid, 1991; Lave, 1991). Because communities of practice play a vital role in the formation and acknowledgment of identities within working communities and the continued, collaborative practice necessary for development, it is important to be aware of effects of infrastructure, management and wider organization.

Loss of Teaching Force in the United States

Each year, approximately 6% of the teaching force leaves the field and 7% transfers schools, which leaves U.S. schools looking to fill about 240,000 open positions per school year (Roth & Swail, 2000). This nationwide teacher shortage is often central to discussions of diminished instructional quality in U.S. schools, and, until relatively recently, there has been little research invested into identifying factors that affect teacher retention (Boyd et al., 2009). Though much attention has been placed on increasing recruitment through programs like Teach for America and CalTeach, influxes of new teachers have not turned the tide of the national teacher shortage. What has become evident is that low recruitment is not the primary cause for schools lacking qualified teachers—the “revolving door”, or teacher attrition, is the larger issue (Ingersoll, Merrill, & May, 2014, p. 5). As a result, some researchers are convinced that stemming the outflow of teachers from the field is equally or more important than recruitment.

According to Ingersoll (2002, p. 42), the bulk of demand for new teachers results from teachers leaving classroom instruction pre-retirement age or transferring to other schools, not from “old-age” retirement. As many as 35% of new teachers leave the field for good within the first five years of employment (Ingersoll, 2002), a rate that contributes to low retention and increased pressure on schools in terms of recruitment, spending, training and planning.

It is important to note that teacher attrition rates are not necessarily higher than those of other professional fields in the early years; new graduates were just as likely to still be teaching four years following graduation as their peers in other occupations (Ingersoll, 2001; Kersaint, Lewis, Potter, & Meisels, 2007). Some argue that this places disproportionate attention on new teacher attrition rates. Regardless of the age of leaving faculty, schools with high turnover experience issues with cohesion of instruction and student learning more severely (Boyd et al., 2011).

The annual loss of teachers nationwide disrupts school communities, draws significantly upon financial resources and, ultimately, affects student and faculty performance (Ingersoll, 2001; Kersaint, Lewis, Potter, & Meisels, 2007). Studies into the factors causing teacher attrition were reviewed to investigate the quality of communities of practice in the United States..

Factors Affecting Longevity of Teachers

Investigating what individual characteristics determine whether teachers stay at their schools or not has been the subject of much investigation with somewhat mixed results (Boyd et al., 2011; Ingersoll, 2001; Ingersoll & May, 2011; Kersaint, Lewis, Potter, & Meisels, 2007).

Having clarified that reducing turnover could both provide stability in school communities, Ingersoll found, in cases of departure from the profession, 42% of teachers cited job dissatisfaction and pursuit of better job opportunities; transfers to other teaching positions mostly attributed their decisions to “low salaries, lack of support from the school administration, student discipline problems, and lack of teacher influence over decision-making” (2001, p. 522). Higher autonomy in the classroom also correlated with lower rates of teacher attrition (Ingersoll & May, 2011).

Considering these indicators and the aforementioned areas of potential improvement, applying social learning based pedagogical theories to the structure of the faculty relationships could illuminate pathways for development and transformation of school communities, specifically regarding concerns of administrative support, teacher autonomy, teacher power in decision-making and job dissatisfaction. With that in mind, factors dependent on collaboration, communication and social learning will be investigated more closely.

Administrative Support

Several studies have found that issues with administrative support, including school discipline programs and organization, have been major factors that influence teachers who leave schools (Kersaint, Lewis, Potter, & Meisels, 2007). In a survey of teachers who had left teaching after their first year (n=368), Boyd et al. found that almost 20% of participants reported that the principals of their schools never worked with teachers to meet curriculum standards, and 30% reported that their principals did not encourage professional collaboration (2011). Only 10% of principals were identified as exceptional in communication and collaborative skills (Boyd et al., 2011). These findings indicate that there is a need to redefine the roles of principals and administrators in school communities.

Teacher Autonomy and Power in the Community

“Change is more likely to be effective and enduring when those responsible for its implementation are included in a shared decision-making process” (Scribner, Sawyer, Watson, & Myers, 2007. p. 71). School environments where faculty members have more control over their classrooms and input into schoolwide decisions have reported lower rates of turnover (Ingersoll,

2001). This implies that improved collaboration and greater freedom for faculty members in terms of professional development could have a direct beneficial effect on teacher attrition.

Teacher Preparedness and Training

Current research has identified a need for support in practice and professional development for educators (Schlager & Fusco, 2003). More than type of college, degree, entry route or teaching certificate, the amount of training in pedagogy and teaching methods was a positive indicator of a teacher staying at a position after the first year of teaching (Ingersoll, Merrill, & May, 2014). Knowledge of practical skills, teaching strategies and pedagogies indicate that teachers will stay more than formal qualifications. Many states, in order to staff their schools with certified teachers, have allowed for alternative teacher certification programs that produce teachers with “strong content knowledge”, but limited classroom or pedagogical training (Roth & Swail, 2000, p. 19).

Mentoring programs and professional development communities have been shown to improve teacher retention, but issues of transfer from learning to practice are often mentioned as barriers to improve teaching performance (Kersaint, Lewis, Potter, & Meisels, 2007; Schlager & Fusco, 2003).

The Power of Professional Development

Schools are eager to capitalize on the power of professional development to improve student performance by investing in formal professional development like teacher induction programs, workshops and online courses. In a survey of professional development experiences of teachers nationwide, Wei, Darling-Hammond, Andree, Richardson, & Orphanos found that 92.5% of teachers attended workshops, conferences, or training sessions (2009).

Extensive research has been done to find the most effective way to spend money to increase student performance. A survey of 1,300 studies of efficacy of professional development found that substantial programs of an average of 49 hours resulted in an improvement in student performance by about 21 percentile points, but workshops of less than 14 hours were shown to have no significant effect (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

Wei et al. found that the more time spent on any given topic in a workshop correlated with a higher percentage of participants who rated that training as useful or very useful, but the time spent on topics were relatively limited (2009). Most professional development opportunities did not “meet the threshold needed for strong effects on practice or student learning” (Wei et al., 2009, p. 34). Teachers are spending time in workshops that are not long enough to have a meaningful effect on instruction or student performance.

Since job-embedded professional development gained traction as an effective alternative to workshops, attention has been placed on ongoing collaboration between faculty members. Yet, as Wei et al. found in a survey of teachers in the 2003-2004 school year, the frequencies of types of collaboration in school varied greatly: regularly scheduled collaboration focused on instruction (70.4%), peer observation (63.0%), mentoring (45.7%) and individual or collaborative research on a topic of professional interest (39.8%) (2009, p. 40). Only 17% of teachers reported experiencing a “great deal of cooperative effort among staff members” (Wei et al., 2009).

On a related note, teachers in the United States were observed to have less influence over school decisions and policies when compared to teachers in higher-achieving nations like Scandinavia and the Pacific Rim—a finding that is a possible indicator of faults within school infrastructure impeding collaborative work (Wei et al., 2009).

Concluding their report, Wei et al. questioned the efficacy of efforts to encourage collaborative activity as teachers did not seem to be satisfied with the collaborative, coordinated work environment or curriculum (2009). The researchers recommended professional development including opportunities for inquiry, regular allotted time for follow-up and reinforcement and organization of productive collaborative communities (Wei et al., 2009).

Is the Online Professional Development Downskilling Teaching?

Downskilling, or simplification of tasks into steps intended to be completed by workers of any experience level, is a strategy commonly used by organizations to make training more universally accessible (Brown & Duguid, 1991). In their study of corporations, Brown & Duguid identified downskilling as a source of mutual frustration: Workers feel that simplified training does not adequately cover or acknowledge additional development needed to complete work tasks (i.e. improvisation in unexpected scenarios), and managers tend to interpret negative reactions as reflective of “untrainable, uncooperative, and unskilled” workers. According to Brown & Duguid, these situations commonly arise when corporations adhere dogmatically to formal training and standardized practice (1991).

School districts and administrations also fall prey to the temptation to apply the latest research-backed professional technology to improve student performance without taking into account the gaps between training resources and applied practice. Often Internet-based professional development courses or online conferences connect learners, but do not involve opportunities for sustained collaborative work between colleagues at schools. Internet technologies that give teachers an isolated toolbox of resources, one that they are encouraged to use independently

without a community of collaborative practice and reflection, succumb to critical weaknesses that creates a lack of cohesion within the teaching community at a school.

Just as short-term workshops and conferences fail to address important structural issues within schools that prevent sustained, shared practice among the community of teachers (Wei et al., 2009), many Internet-based professional development resources can tempt administrations as a quick fix and not produce any transformative change to the school community. More importantly, if there are no available pathways for teachers to share what they have learned via their professional development, the school, at large, misses out on the potential for shared information and practice.

At the same time, the dangers of employing Internet-based professional development services are the same as those of traditional face-to-face methods. Administrators and coordinators should be aware of the structure of programs, keeping in mind that learner-centered, collaborative activities with opportunities for inquiry, reflection and follow-up have been recommended for better results in terms of student and teacher performance (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009). With that in mind, there are affordable, readily available Internet tools that can be used to support communities of practice.

How to Create Effective Online Communities of Practice

According to the 2010 National Educational Technology Plan, the future of professional development in teaching is online communities of practice,. Emerging evidence shows that online social learning spaces have resulted in improved access, sharing and creation of knowledge, as well as improved commitment to the trade (U.S. Department of Education, 2014). Properly implemented online communities of practice have reduced feelings of isolation, helped teachers

exchange stories and build relationships with peers, resulted in application of artifacts created in the communities in actual teaching practice, increased collaborative activities towards collective goals on a larger scale (i.e. statewide) and motivated teachers to take on leadership roles outside of stated professional responsibilities (U.S. Department of Education, 2014).

According to the U.S. Department of Education, nurturing communities of practice involves identifying a community focus, leadership and stakeholders, resources, level of privacy and technology; like many school organizations, there should be a mechanism for recruitment, promoting engagement, and evaluation (2014).

The potential issue with formalizing the formation of communities of practice is that it contradicts the assertion by Wenger that communities of practices should not be strictly defined because members should have the freedom to develop as the interests evolve (Wenger, 2000). Instead, the administration should identify essential roles such as experienced, trustworthy coordinators to lead the communities, brokers to communicate between community and non-community members, day-to-day organizers, cutting-edge leaders who spearhead “out-of-the-box” projects and interpersonal leaders to maintain the group’s social fabric (Wenger, 2000). The communities, themselves, should develop a process of designing, completing, applying and revising projects that can be reused as new interests and goals are identified by the group. (Wenger, 2000)

Once the stakeholders and processes of the communities of practice are established, administration should allow for some flexibility in planning. Representatives from the communities of practices should have input into school policy formation and decision-making (Wenger, 2000).

Administration should also be poised to connect the communities of practice to people, resources and other communities to help goals come to fruition.

Essentially, the administration and faculty should strike a balance through ongoing collaboration and negotiation. Over time, the trust and rapport built between the sections of the school will allow for development, progress and stability in a way that would have been impossible without the existence of the understandings reached through the work and acknowledgment of communities of practice.

Less is More: Google Apps to Promote Collaborative Activity

Filling professional development time with formal programs takes time away from collaboration and communal growth, but asking school administrations to trust that faculty will naturally form communities of practice if given open-ended time is unrealistic and inefficient. There is a balance between the two extremes, and this middle ground requires administration and faculty to communicate and work together to create a system that allows teachers the autonomy they desire while ensuring that the administration can provide guidance in school development. There should be more freedom for teachers to draft, explore and test new theories and programs, while maintaining the kind of oversight and management capabilities expected by traditional school administrations.

Google Apps for Education is a powerful, comprehensive set of free, cloud computing based tools for collaborative work. Faculty members can share resources and create artifacts that are automatically stored on the cloud. Using the cloud, administrators and relevant parties can access and follow activities of the faculty members more accurately and effectively. What this means is that, teachers can use the apps to organise their communities of practice, and the admin-

istration can see how and where individual teachers are spending their time. Teachers can use the Google apps to show administrators progress in collaborative projects without having to allocate time to formal presentations and meetings. Here, Google acts as a convenient, detailed means of communication between administrators and faculty in a way that was previously unimaginable.

The advent of free, cloud-based tools like Google Apps for Education means that administrations can now begin considering the benefit of providing regular, open-ended time for collaborative faculty planning and development without relinquishing the ability to oversee and provide relevant guidance to those communities of practice. Moving from authoritative to collaborative roles can help administrations create attractive, functional school communities that keep teachers from year to year.

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