Opportunities to Personalize Teacher Learning: Innovative Approaches to Bridge Evaluation and Professional Development for Continuous Improvement

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METROPOLITAN EDUCATIONAL RESEARCH CONSORTIUM

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Metropolitan Educational Research Consortium

MERC

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MERC Membership

Chesterfield County Public Schools

Colonial Heights City Schools

Goochland County Public Schools

Hanover County Public Schools

Henrico County Public Schools

Powhatan County Public Schools

Richmond City Public Schools

Virginia Commonwealth University

Background

Virginia Commonwealth University and the school divisions of Chesterfield, Colonial Heights, Goochland, Hanover, Henrico, Powhatan, and Richmond established the Metropolitan Educational Research Consortium (MERC) in 1991. The founding members created MERC to provide timely information to help resolve education problems identified by practicing professional educators. MERC currently provides services to over 12,000 teachers in eight school divisions. MERC has base funding from its membership. Its study teams are composed of university investigators and practitioners from the membership.

MERC is organized to serve the interests of its members by conducting and disseminating research to enhance teaching and learning in metropolitan educational settings. MERC's research and development agenda is built around five goals:

- To improve educational decision-making through the joint development of practice-driven research.
- To anticipate significant educational issues and needs that can be researched.
- To identify proven strategies for improving instruction, leadership, policy and planning.
- To enhance the effective dissemination of research to practitioners.
- To provide research oriented professional development opportunities for school practitioners.

In addition to conducting research, MERC conducts technical and educational seminars, program evaluations, and an annual conference, and publishes reports and research briefs.

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Abstract

The following seven innovative approaches to personalize teacher learning are explored as possible mechanisms to bridge evaluation and professional development: individual or peer portfolios; National Board Certification; computer-mediated content management; peer evaluation and coaching; computer -mediated coaching; unconferences; and virtual learning communities (VLCs). Relevant research studies on these approaches are summarized, strengths and weaknesses are presented, and recommendations for consideration are discussed.

Introduction

The processes of teacher evaluation and teacher professional development should, at least conceptually, work in cyclic fashion, one informing the other in efforts to foster continuous school improvement. However, practically speaking, access to individual personnel evaluations is restricted and highly sensitive, results from evaluations are rarely examined in aggregate, and professional development is often designed apart from the formative feedback shared between school administrators and teachers. It is this disconnect between theory and practice that prompts this review of literature and an investigation of different professional development configurations that can be tailored to the individual in response to feedback derived from the evaluation process. It was the intention of MERC's planning council to investigate the intersection of evaluation and professional development for the purpose of finding innovative approaches to personalize teacher learning, using lessons learned in formative and summative assessments to drive professional development for individual teachers in meaningful and differentiated ways.

Context

The reauthorization of the Elementary and Secondary Education Act (ESEA) as No Child Left Behind (NCLB) in 2001 ushered in a new era in accountability in public schools, placing heavy emphasis on the examination of student achievement data with implications for accreditation and funding, as well as the distinction of "highly-qualified teachers" (U.S. Department of Education, 2003). The increased mandates ushered in by this landmark legislation intersected The Great Recession of 2007-2009, greatly reducing state funding of education, leaving localities with little ability to compensate (Center on Budget and Policy Priorities, 2014). Before school districts could recover and regroup, a national push for the adoption of Common Core State Standards (CCSS) ensued, putting many states in limbo as to the best choice for implementation, with its associated implementation challenges. While Virginia chose not to adopt CCSS, keeping its well-developed Standards of Learning, the state did update its evaluation system for teachers, principals, and superintendents to be implemented in 2012, 2013, and 2014 respectively.

It is at this intersection of high stakes accountability, new mandates, dwindling resources, and increased

scrutiny that the critically related processes of evaluation and professional development are particularly worthy of examination. According to Babo and Villaverde in an article regarding principal evaluation and professional development (2013), "This all encompassing new focus then begs for not just an equitable and comprehensive system of...evaluation but also, more importantly, a fully developed, logical, fair platform for continued professional development and growth if the country's [school leaders] are going to reach their full potential" (p. 93). Birman, Desimone, Porter, and Garet (2000) state, "Professional development plays a key role…[and] is a key focus of U.S. efforts to improve education" (Birman, et al., 2000).

Table 1

Best Practices and Common Pitfalls in Teacher Evaluation from Research

Teacher Evaluation	
Best Practices	**Common Pitfalls**
Dual purposes of accountability and improvement	Checking a box for accountability's sake
Based on professional standards and includes a developmental scale	Vague, subjective criteria
Multi-faceted evidence for triangulation	Single or few measures
Observations and data captured over time	Snapshots in time representing minimal investment of time
Practical, useful, timely feedback	Generic, after-the-fact feedback unrelated to practice
Formative and summative	Summative only
Value placed on collaboration	Competition inadvertently encouraged
Growth acknowledged and rewarded	Fixed mindset about teacher competencies and a fault-finding administrative culture
Measurement differentiates proficient vs. exemplary teachers	Inadequate for differentiating between more and less effective teachers
Strong instructional leadership	More managerial focus in leadership
Credible, experienced, well-trained evaluators	Unknown, inexperienced, or ill-trained evaluators
Involve expert teachers in design and review processes	Administrators design in isolation

Sources: Bill & Melinda Gates Foundation, 2012; Delvaux, et al., 2013; Hattie & Timperley, 2007; Herlihy, et al., 2012; Kimball & Milanowski, 2009; Murphy, Hallinger, & Heck, 2013; National Center for Educational Achievement/ACT, Inc., 2011; The New Teacher Project, 2009;

Wilkerson, Manatt, Rogers, & Maughan, 2000.

Literature Review

Literature on Professional Development and Evaluation

While not the focus of the paper, a brief review of best practices and common pitfalls of both evaluation and professional development processes will be summarized in tables 1 and 2 below, so as to ground the discussion of innovative practices. Looking toward innovative practices should certainly be encouraged, but not without evaluating these practices in light of lessons learned through research.

Table 2

Best Practices and Common Pitfalls in Professional Development from Research

Professional Development	
Best Practices	**Common Pitfalls**
Incentives and/or communication of reasons why	Add-on requirement "just because"
Relevant and job-embedded	Disconnected from context of practice
On-going teacher-learner interactions	One-shot workshops with no planned follow-up
Differentiated	One-size fits all
Active learning	Passive sit-and-listen workshops
Demonstrations followed by real life opportunities to learn, practice, and receive feedback	Telling with no showing or doing
Delivered "just in time" when needed	Timed based on calendar
Directly related to content/curriculum	Generic information with minimal concrete applications
Specific, well-described criteria for what proper implementation looks like	Abstract concepts or irrelevance to teaching context
Depth	Breadth
Resonates with held philosophy	Incongruent with beliefs
Culture of professionalism	Culture of alienation and mistrust
Leeway to implement flexibly	Rigid one-way approach
Long-term commitment and support to sustain efforts	Fly-by-night funding and commitment
Coherence with policies and other experiences	Programs introduced in isolation

Sources: Belzer, 2005; Birman, et al., 2000; Connecticut State Education Resource Center, n.d.; Dunst & Raab, 2010; Learning Forward, 2014; National Center for Educational Achievement/ACT, Inc., 2011; National Education Association, 2006.

The New Teacher Project, 2009; Sinek, 2010.

Relationship Between the Processes

In theory, the processes of evaluation and professional development should inform each other in the pursuit of continuous school improvement. Tucker, Stronge, Gareis, & Beers (2003) describe a tight relationship, citing professional development as "a secondary and often overlooked purpose of teacher evaluation" (p.592). However, in practice, there is a "lack of alignment between teacher evaluation and teachers' professional development in schools" (Delvaux, Vanhoof, Tuytens, Vekeman, Devos, & Petegem, 2013, p.2), the "link between professional development and the evaluation system is not always clear and the evaluation process can be insufficient in improving teacher performance" (Isore, 2009; Milanowski & Kimball, 2003 as cited by Delvaux, et al., 2013, p.4). Additionally, in practice, the resulting data from the processes is often housed in separate departments: evaluation data in human resources and operations, and professional development data in instruction. This structural separation may contribute to "the lack of alignment between teacher evaluation and professional development" initiatives in school divisions" (Delvaux, et al., 2013, p.2).

There is also an awareness that the two processes may have conflicting purposes (Ballou, 2003). Whereas "formative evaluation requires teachers to be open...summative evaluation [focusing on growth and informing professional development] hinders openness because the outcomes...can have significant consequences for teachers' careers" (Gordon, 2006 as cited by Delvaux, et al., 2013, p.3).

There is "agreement among several authors that teacher evaluation needs to serve a double cause: on the one hand accountability and on the other hand improvement" (Colby, et al., 2002; Stronge, 2006 as cited by Delvaux, et al., 2013, p. 214). A balance between evaluation as a tool for accountability and a means of identifying avenues for improvement should be sought, wherein "teacher evaluations can serve the purpose of increasing effectiveness by providing insights on ways to improve through quality feedback" (The New Teacher Project, 2010; Consortium on Chicago School Research, 2011 as cited by Nabors, 2014, p.5). Darling-Hammond (2014)

Table 3
Evaluation Levels of Training Programs

Kirkpatrick's (2006) Four levels of evaluating training programs (as summarized by Fisher, et al., 2010)
Level 1: participant satisfaction/reaction
Level 2: participant gains in knowledge and skill
Level 3: participant changes in action and practice
Level 4: changes in others' behavior as a result of changed behaviors of participants

reports teachers "want more robust [evaluation] systems that are useful, fair, and pointed at productive development" (p.5), and Babo and Villaverde (2013) recommend "a system of evaluation and appraisal that focuses more on the development of self-reflective skills and professional renewal and growth" (p.100).

Levels of Analysis in Professional Development Research

In examining the body of literature on professional development specifically, Kirkpatrick's (2006) four levels of evaluating training programs (as summarized by Fisher, Schumaker, Culbertson, & Deschler, 2010 in Table 3) became particularly relevant and worthy of mention. In searching databases for relevant, rigorous studies on innovative professional development, many of the resulting studies focused on the first three of Kirkpatrick's identified levels, falling short of evaluating the impact of professional development innovations on student achievement (Level 4). While that does not necessarily discount the findings of reported studies, it is important to note the possible limitation, especially for practitioners who are charged with evaluating the claims of "research-based" programs and implementing them in their local contexts. Evaluating innovative professional development programming in light of student achievement appears to be an avenue ripe for future research.

Innovative Approaches

In this section, seven innovative approaches to professional development will be presented, chosen for their potential to harness feedback from evaluation to personalize and differentiate learning for teachers. The approaches will be described, relevant studies summarized, strengths and weaknesses listed for consideration, and recommendations for implementation offered.

Individual or peer portfolios. Defined as a "collection of information about a teacher's practice" (Wolf, et al., 1997 as cited by Tucker, et al., 2003) and "milestones of work with commentaries" (Friedrich, et al., 2012, p. 380), portfolios can take a variety of forms. Artifacts can be gathered in binders or curated digitally by individuals or in teams of teachers. The development of portfolios allows "teachers to document and reflect on their efforts in improving their teaching and to make their thoughts and developments accessible to others" (Paulson & Paulson, 1994 as cited by Friedrich, et al., 2013), providing the opportunity to engage teachers in the evaluation and professional development processes. Administrators could shift the focus of individual teachers or teams based on evaluation data, asking them to focus their documentation on areas of strength - to further refine practice, or areas of need - to make their thinking explicit and encourage reflective practice in an area in need of craftsmanship.

In a large-scale study of teachers (n=971) in 400 German schools, Friedrich et al. (2012) assessed teachers' perceptions of team portfolios. These portfolios were adopted to "support teachers [in an] approach of collaborative and school-based

professional development" (p.380) in the area of math and science instruction, focused on changing the culture of teaching and learning in German schools. Data from teacher questionnaires indicate the team portfolio as a useful feedback instrument that received positive marks from 60% of respondents. The study suggests that teacher acceptance, understanding, and willingness to use portfolios are critical prerequisites for effective evaluation of professional development. Additionally, Friedrich recommends that team portfolios not be used alone, but with "other supplementary methods and instruments" (p.3).

A study of portfolio implementation as a component of teacher evaluation in a Virginia public school division by Tucker, et al. included surveys and focus groups of teachers and administrators. Both teachers and administrators strongly agreed that the portfolio was a means to "provide evidence of...fulfillment of professional responsibilities not readily observable" (p.590), allowing teachers the opportunity to supplement traditional classroom observations. According to the researchers, "teachers...felt empowered by the greater role they played in their own evaluation, and principals felt that they were better informed and better able to distinguish capable teachers from outstanding ones who extended themselves in terms of the quality and consistency of their professional efforts" (p.593). Portfolio examination by the researchers resulted in strong measures of validity, indicating the fitness of the portfolio for the purpose of accountability and evaluation. However, concerns were raised by participants on the time required to create a portfolio, indicating that it might be better spent in classroom-focused activities. While participants reported that portfolios increased self-reflection, discouragingly they also reported that portfolios did not necessarily lead to changing instructional practices, suggesting applications in professional development as an avenue for future research.

Obvious strengths of the portfolio include active engagement of teachers, flexibility of form and purpose, and connections to improvements in reflective practice. If implemented correctly, these strengths could translate to improved trust between teachers and administrators, and improved professionalism. To balance this, weaknesses of this approach include its time-intensiveness and its questionable impact on teaching practice. Recommendations for implementation include heavily consulting teachers as key stakeholders in the development of portfolio expectations and support for creating digital portfolios as a means of reducing the burden of time and materials.

National Board Certification. Created in the late 1980s, the National Board for Professional Teaching Standards (NBPTS) is an independent, non-profit organization that administers and offers an optional certifying process based on high standards for teacher knowledge and skills. Over the course of many months, teachers videotape their instruction, reflect on their practice, and complete assessments specifically related to their certification area. For many, the National Board Certification process is a

significant professional growth experience because it requires teachers to be reflective, systematic, and involved (Kelly & Kimball, 2001). Administrators could encourage and tap capable teachers to pursue National Board Certification as a means of challenging them to greater heights, while elevating expectations for all and fostering a culture in which excellence is pursued, regardless of starting point.

In a 2003 article, Ballou takes a critical stance on the process, describing a "tension between board certification as evaluation and as professional development" for reasons that include a lack of transparency in scoring and potential discrepancies in expectations between the NBPTS and local school districts. Additionally, Ballou explains,

> *Because the board relies heavily on self-reflection, it may not be an appropriate model of professional development for many teachers. Some will gain little because they are already engaged in constant re-evaluation of their practices. Others, particularly weaker teachers, will not benefit because they do not know how to become better teachers: The board's process is too much a matter of pulling oneself up by one's bootstraps. Unfortunately, the board offers candidates no feedback on their performance beyond the numerical scores. (Ballou,* 2003, p.214).

According to Darling-Hammond (2014),

> *some states have envisioned a continuum in which beginning teachers are evaluated using performance assessments for initial and continuing licensure, and veteran teachers are considered for higher pay and leadership roles based in part on National Board Certification or similar assessments (p.10).*

It is important to note that whereas other innovative practices have minimal studies on Kirkpatrick's Level 4, there are studies that support differential impact of instruction from National Board Certified Teachers on student achievement (Center on Reinventing Public Education, 2005).

The extent to which certification-related activities are job-embedded is a strength of National Board Certification as a means of personalizing teacher learning. Additionally, the process is grounded in widely-accepted professional standards, and it attempts to elevate the status of the profession. Negatives include a lengthy process, expensive application costs, evaluators that are external to the division, and a lack of feedback for candidates and their school division - as they only learn of a summative pass or fail decision, without formative feedback for improvement. Should a division consider pursuing supporting National Board Certification as a means of personalized professional development, recommendations include creating cohorts of support for teachers attempting certification at the same time; integrating the support of previously-successful candidates for National Board Certification; partnering with other school districts and universities to provide coaching; and consideration of financial support in the form of fee assistance and stipends for successful candidates. Given the rigor of this process and associated costs involved, this would not be a recommended approach for teachers failing to meet expectations. It may be an avenue of

Table 4

Overview of Commercial Computer-Mediated Content Management Products

Computer-mediated content management product overview	Features/additional information
Edivation (formerly PD 360 by School Improvement Network): online professional development system personalized to the individual teachers through a system in which teachers and administrators pick their focus areas for professional development	***Learning resources:*** videos and courses on a variety of teaching strategies (ex: summarizing and notetaking, assessing students, using statistical evidence); lesson plans available for download to correspond with videos ***How it works:*** system recommends videos to teachers based on their profile; teachers can browse and select; and/or administrators can assign topics to teachers ***Management tools:*** administrators can create system-wide and individual plans and goals for teacher users; administrators can assign and receive updates on teacher usage ***Implementation support:*** on-demand support through website and online workshops to train administrators and teachers how to use the system and personalize their goals; option of creating classroom observation templates to align with PD ***Online PLC groups:*** available to connect teachers to others with common interests ***Credit values:*** can be determined by local administration for recertification/continuing education ***Cost:*** not specified on website – personalized quotes available from sales department
PD in Focus (by ASCD): an on-demand professional development tool which includes videos demonstrating effective teaching practices and is to be used in a group setting with the addition of other resources.	***Learning resources:*** videos resources and related activities – often featuring authors of books available through ASCD; includes access to a monthly interviews by Charlie Rose from NPR about current events in education ***How it works:*** is divided into channels that house different educational topics (ex: RTI, common core, curriculum mapping, etc.) ***Management tools:*** administrators can track and access the teachers completion of professional development videos and activities ***Implementation support:*** start up sessions for each teacher to understand the program and to provide common understanding of effective instruction ***Online PLC groups:*** not mentioned on website ***Credit values:*** not mentioned on website ***Cost:*** according to website, school district purchase typically costs less than $50/teacher
Teacher Compass (by Pearson): "Winner of Best Professional Learning Solution for Education, Pearson Teacher Compass Suite, comprised of Teacher Compass PD, Teacher Compass Observe and Principal Compass, helps school leaders and teachers work together to implement an equitable educator evaluation and improvement system. Teacher Compass PD is a web-based, on-demand professional development platform that engages teachers in ongoing training, reflection, and collaboration."	***Learning resources:*** teachers can access tutorial videos through Pearson and the district can upload videos for their teachers as well; teachers create profiles in which they can share and "favorite" specific videos ***How it works:*** "Combined with Teacher Compass Observe — Pearson's teacher observation and evaluation platform —Teacher Compass PD creates individualized professional development plans for every teacher based on observation data;"* Compass suggests PD videos based on the previously viewed videos and the teacher's favorite videos ***Management tools:*** includes principal access to teacher profile and completion of PD videos; can be paired with Teacher Compass Observe, which allows administrators to house observations within the teacher profile and allows administrators to recommend PD videos based on the observation; can also be paired with Principal Compass, which tracks teacher progress to allow principals to analyze observation data to create PD sessions that will benefit the school ***Implementation support:*** not mentioned on website ***Online PLC groups:*** teachers can connect with other teacher's profiles and comment and collaborate with teachers through the online profile ***Credit values:*** not mentioned on website ***Cost:*** not mentioned on website

*Source: http://www.pearsoned.com/pearson-wins-three-2013-software-information-industry-association-codie-awards/#.VEh5g16Q1kA

opportunity to grow and stretch teachers who are exceptional and crave a challenge related to their practice that exceeds what administrators in-house can provide, due to limitations on their content expertise and/or time constraints.

Computer-mediated content management. Over the last few years, numerous for-profit companies have emerged, offering access to proprietary professional development content on a subscription basis for teachers. This content often takes the form of video, but can be housed in a content management system that allows for administrative monitoring, assignment of content, and report generating. In this interface, teachers can also respond to discussion prompts and, in some cases, connect with other educators in discussion threads. Administrators could theoretically assign content to teachers based on formative and summative evaluation data, allowing for differentiated content for professional development. Products in this vein include Digital Learning Tree, PD360 (recently renamed Edivation), PD in Focus (by the Association for Supervision and Curriculum Development), and Teacher Compass (by Pearson). A brief overview of these products is provided in the Table 4.

It is in this arena of computer-mediated content management that there seems to be a large void in the research literature. According to Dash, de Kramer, O'Dwyer, Masters, & Russell (2012), "Despite the ever-increasing number of online professional development programs, relatively few studies have been conducted to examine the efficacy of such programs for teachers and students" (p.1). Echoing Dash's comments, Fisher et al., (2010) stated, "unfortunately, little is known...in relation to the improvement of teacher classroom practice…[and prior to 2010] no studies have been found that have directly measured student learning" (p. 303).

Two studies, having emerged since that statement, produced findings that were neutral at best. Fisher, et al. (2010) evaluated a multimedia software program's effectiveness compared to a traditional, face-to-face workshop. Both formats were found to be equally as effective, participants expressed satisfaction for both, and there were no significant differences in the posttest scores of teachers or students. Later, Dash, et al. (2012) used randomized control to compare face-to-face and online professional development in the area of elementary mathematics. While the group receiving online training "had significantly greater gains in scores for pedagogical content knowledge and pedagogical practices than teachers in the control...positive changes in teacher outcomes did not translate to any meaningful differences in student mathematics achievement" (p.1).

At the top of the list of strengths of computer-mediated content management for professional development is accessibility and convenience, allowing teachers to access training anytime and anywhere. Additionally, the management system lends itself to increased functionality for oversight and reporting, allowing administrators to know who is accessing it, when, how often, and on what topics. These administrative features provide

documentation of assistance, particularly useful in difficult decisions to non-renew teachers who are not showing adequate improvement. This approach may also be useful for school districts that lack the infrastructure in professional development to research, design, and build their own materials. On the other hand, "although professional development should be accessible and affordable, more importantly, it must be effective" (Fisher, et al., 2010, p.302). As noted, weaknesses include the lean research base on its effectiveness, the impersonal feeling of professional development being assigned to teachers, and the cost of subscriptions for access. Furthermore, this approach seems in keeping with many common pitfalls of professional development implementation - including a passive, sit-and-listen approach; telling with no showing; one-shot trainings with a lack of teachers-learner interactions; programs introduced in isolation; and a focus on breadth of offerings (with thousands of videos) vs. a focus on depth of learning (addressing a few concepts thoroughly and meaningfully).

Should districts consider leveraging computer-mediated content management systems, the following recommendations are offered for consideration: include subscriptions as a component of an overall professional development plan, not as an exclusive source of professional learning that can substitute local support and collegiality. Assess the quality of the videos and interface for both content and aesthetics, as outdated, unuseful content will not be worth the investment. Also, consider if the proprietary tool allows you to upload your own content for teachers' consumption, and review contract terms about intellectual property, should you contribute to their resource library. In the event a district has substantial infrastructure, commitment, and will to tackle such a project, consider leveraging pre-existing content management systems in your district to create online modules in areas of high need, performing similar functions as the subscription service in open source tools such as Moodle. While subscription costs will be saved, labor costs will take their place. The difference is knowledge management, having access to your content over time, regardless of shifting funding streams and the solvency of for-profit companies which may not last.

Peer evaluation and coaching. Peer coaching is "one of the fastest growing forms of professional development today" (National Staff Development Council, 2009, p.11). Successful peer evaluation and peer coaching programs involve building a culture of trust, transparency, and collaboration for the improvement of individual teachers, teamed pairs, and the organization as a whole. In this approach, teams of teachers focus on reflection, development of new skills, and collegial support (Chester, 2012) as they tackle the important work of connecting pedagogy to practice by incorporating new knowledge and skills. (Chester, 2012; Sugar & van Tryon, 2014). The evaluation process can serve as an identifying mechanism for both coaches and recipients of coaching, as their respective strengths and weaknesses are noticed.

In an evaluation of a voluntary peer coaching model in higher education, Chester (2012) found participants' development of new skills correlated with perceived confidence in their partner's skills, implying the need for credible coaches in areas of desired growth. Additionally, some participants reported increased workloads associated with the peer coaching process, but also expressed that it was worthwhile.

In a 2009 report from the National Staff Development Council, authors review literature on the effectiveness of school-based coaching. On one hand, they reported evidence of coaching leading to "positive reforms in literacy instruction," and an increased likelihood of "enact[ing] the desired teaching practices and apply [ing] them more appropriately" (p.12). However, one study concluded an increased self-perception of confidence from coaching without a difference in the way they were rated externally, compared to non-coached peers; and another study indicated that despite receiving strategy-focused coaching, teachers did "not necessarily know when it was appropriate to select one instructional strategy over another" (p.12). The report aptly notes "the findings may have as much to do with the content of the uneven implementation of the specific coaching received as with the coaching model itself" (p.12).

The strengths of peer coaching include the benefits beyond improved practice for the individual, namely a collaborative culture and increased professional capacity of teachers and coaches. By distributing leadership in this way, some studies report a lessened burden on principals (White, Cowhy, Stevens, & Sporte, 2012). Additionally, this form of professional development is completely job-embedded and sustained over time. However, the challenge of resources is worth noting, as implementing it well would include substantial training for coaches, release time, and potentially the creation of new instructional coaching positions. Recommendations for potential implementation include establishing clear roles and boundaries, separating personnel who evaluate and personnel who coach, so as to not blur lines and violate trust, which is a critical component to peer coaching success. It is also strongly suggested that coaches are chosen intentionally for their instructional skill and emotional intelligence, not just because of their proximity or availability. In the event logistics are complicated, consider leveraging technology to record and share instruction and facilitate collegial dialogue across distances. Excellent resources for embracing instructional coaching include Jim Knight's practitioner -focused books.

Computer-mediated coaching. In the same spirit of peer-coaching, computer-mediated coaching utilizes technology almost exclusively to facilitate interactions between coaches and teachers. To explain this approach, I will highlight the process used by one commercial product known as the My Teaching Partner (MTP) program. This program, offered by the company Teachstone, originated from research conducted at the Center for Advanced Study of Teaching and Learning (CASTL) at the University of Virginia. MTP is a professional development program aligned with the Classroom Assessment Scoring

System (CLASS) teacher observation and evaluation tool, and both CLASS and MTP specifically focus on improving the quality of teacher-student interactions as a mechanism of improving student achievement (Center for Advanced Study of Teaching and Learning, n.d.). In this program, expert coaches are provided by the company to work with caseloads of teachers across distances. The MTP program utilizes a cyclical approach in which a teacher videotapes his or her instruction and sends it to the coach for review. The coach watches and selects segments of the tape on which to focus and writes prompts to which the teacher responds online. A post-conference occurs synchronously, goals are set, and the process begins again for a total of 6-10 times in the course of a year. MTP in particular has been used broadly in early-childhood education arenas. Upon a cursory internet search, other less-formal products and programs are also available in the marketplace, including Live PD by Tutor, which allows for real-time text chatting or videoconferencing with an online coach.

Several studies have been conducted specifically on the impact of the CLASS evaluation instrument and/or the use of the MTP professional development program in both early childhood and K-12 learning contexts. Specifically, the impact of MTP was investigated (n=78 secondary school teachers; n=2237 students), yielding "substantial gains in measured student achievement...equivalent to moving the average student from the 50th to the 59th percentile in achievement test scores" (Allen, Pianta, Gregory, Mikami, & Lun, 2011 as summarized by Teachstone, 2014, p.13).

Similar to peer coaching, computer-mediated coaching boasts many strengths aligned with hallmarks of best practice in professional development, including job-embedded learning, on-going support, and a high level of differentiation based on teachers' needs. Harnessing external coaching expertise can be considered a strength for small districts with minimal resources to hire full-time coaches, and these coaches work to develop relationships with teachers on their caseload over time, creating a space for emotional support as well. Negatives to weigh prior to implementation include the alignment with an alternate evaluation system (CLASS tool vs. local expectations) and the cost of participation in the program. It is also unknown to what degree the data regarding teacher scoring and progress in the MTP cycle are shared with the sponsoring division. This well-designed evaluation (CLASS) and professional development (MTP) feedback loop illustrates the challenges of drawing the line between the processes - determining what is formative, what is summative, what information is for administrators to know, and what information is shared in an environment of trust with a supportive coach. Recommendations for pursuing this type of option include planning for the necessary technology to accomplish long-distance coaching such as video equipment, memory cards, and videoconferencing software. Additionally, it is recommended that districts ask for the qualifications of coaches assigned to ensure the right match, consider information-sharing policies between coaches and division administration and ethically disclose this information to teachers, and finally, investigate leveraging grants to assist with costs associated with participation.

Virtual Learning Communities. The general concept of Professional Learning Communities (PLCs), promulgated by DuFour, has been widely adopted - and adapted - to meet a variety of needs. In the category of Virtual Learning Communities (VLCs), these professional development activities can be synchronous or asynchronous, and they involve the gathering of teachers to create communities of practice across distances. Administrators can connect teachers to VLCs, based on evaluation data, for opportunities to strengthen their practice in relevant, differentiated ways.

In a 2010 study, Marrero, Woodruff, Schuster, & Riccio investigated teacher perceptions of a series of live, synchronous science short courses that allowed for collaboration between educators, instructors, and scientists. The one-hour short-courses were facilitated through videoconferencing software, and teachers had assignments and follow-up meetings between courses via videoconference. Instructors reported that the session content was taught in half to two-thirds the time of face-to-face professional development sessions using the online environment. Teacher perceptions were overwhelmingly positive. Combining agreement and strong agreement, 99% of participating teachers felt that the overall experience contributed to their professional growth, and 93% felt that the course format was a good model for professional development. Additionally, 54% of respondents noted the ability to collaborate with and gain knowledge from other educators as a positive aspect of the format; 24% noted the ability to receive immediate feedback to questions from experts; and many positive comments were received about flexibility of course structure (Marrero, et al., 2010).

Erickson, Noonan, & McCall (2012) conducted a mixed methods analysis of online seminars for rural high school special education teachers. Reactions from participants was positive, and they noted the benefits of connecting with others in a professional community, learning up-to-date instructional strategies, sharing challenges and brainstorming solutions, and "applying course content to the unique needs of their schools" (p.31).

McConnell, Parker, Eberhardt, Koehler, & Lundeberg (2013) examined teacher perceptions of virtual PLCs in contrast to face-to-face PLC meetings in a planned year-long professional development sequence for K-12 teachers in Michigan. The sequence began with a seven day face-to-face conference, a subsequent three day session, and then monthly follow-up meetings throughout the school year for a consistent group of 54 teachers. Follow-up meetings took place in small groups of five teachers. Nine groups met face-to-face, and two groups met virtually - one with a facilitator and one as a self-facilitated group. Results indicated that teachers preferred face-to-face, but that videoconference was an effective tool for facilitating PLCs when distance and time are barriers. Teachers who expressed distractibility in face-to-face settings reported more engagement and more time-on-task when they participated virtually. Additionally, both face-to-face and virtual group reported similar social interactions and equal time on task. The same issues were raised and the same themes of what was

Table 5

Greenhill & Wiebrands's (2008) Contrasting Features of Unconferences and Traditional Conferences

	Unconferences	Traditional Conferences
Purpose	To provide a forum for participants to discuss what they want, when they want	To represent the profession, focus on the issues of professional concern, provide discipline-defining vision.
People	Attendees are active participants	Attendees are passive viewers
Programming	Informal, timely, participant driven sessions	Pre-planned programming, typically in the form of talks regarding papers submitted
Timing	Whenever it starts is the right time, and when it's over, it's over	Take months to organize and requires extensive publication of speakers and programming
Format	Flexible, depending on programming needs	Defined format and formal structure
Pertinence	Cover up-to-date topics	Developments within the past six months typically are not covered because of lag time in planning
Costs	Flexible and potentially low-cost, depending on setting	More extensive for planners with significant budget implications
Pros	Combine the level of synergy and excitement present in a good coffee break with the substantive activity and results characteristic of a good meeting	Topics are published in advance, so attendees know what to expect
Cons	Outcomes are unpredictable and resulting classroom application cannot be guaranteed	Fewer informal networking opportunities and less opportunity for sessions tailored to individual needs

valuable about follow-up meetings emerged in both treatment groups (McConnell, et al., 2013).

In contrast to the previously mentioned studies, Holmes (2013) examined an asynchronous form of professional development known as a Learning Event (LE), defined as "short-duration, non-formal learning opportunities for teachers to work together on a particular theme supported by a domain expert or tutor" (p.100). In this study, the LEs were focused on instructional technology. The first LE lasted for 11 days, and feedback from participant surveys indicated a desire for longer allotments of time, thus the second LE lasted 34 days. In examining resulting data, Holmes reported evidence of knowledge-for-practice, in-practice, and of-practice. Additionally, teachers who were not able to implement ideas directly still reported learning through collaboration and reflection

with other participants in the LE. Holmes concluded that a LE provides an attractive alternative to traditional face-to-face professional development.

VLCs, which vary greatly in focus, form, and function, have great potential to expand professional networks and expose teachers to new ways of thinking. Their accessibility and convenience is an obvious strength, and the formation of VLCs on a variety of topics makes for natural differentiation. Potential negative aspects include questionable credibility with some community members, and possible barriers in access for areas without technology infrastructure. Videoconferencing, in particular, is a very bandwidth-heavy endeavor, and transmission lags were reported as frustrations in synchronous meetings (McConnell, et al., 2013).

Recommendations include building in time to establish a sense of community, in face-to-face format if possible (McConnell, et al., 2013). Additionally it is critical to plan ahead for technical aspects of VLCs, anticipate the need for back up plans, and remain flexible when technology hiccups occur.

Unconferences. The unconference is a relatively new format for professional meetings and trainings, defined by Follett as a "self-organizing forum for idea sharing, networking, learning, speaking, demonstrating, and generally interacting with [others]...based on the premise that in any professional gathering, the people in the audience - not just those selected to speak on stage - have interesting thoughts, insights and expertise to share" (Follett, 2006, as cited by Greenhill & Wiebrands, 2008, p.1). In an unconference, attendees actively participate at all stages of the event, from proposing topics for discussion, to contributing to the learning through sharing. Table 5 summarizes the major differences between traditional professional conferences and the unconference concept.

Beyond blog posts and one white paper, there was no mention of unconferences in the literature, revealing an area ripe for continued research. In the 2008 white paper discussing an unconference for librarians, Greenhill and Wiebrands surveyed attendees about their experience and discovered they felt they had participated more, learned more, and were less bored compared to the traditional conference format. Additionally, survey data indicate the same level of preparedness and professionalism of presenters, and more up-to-date topics compared to the traditional conference format. Researchers assert that the unconference is an "effective and surprisingly professional way of transferring knowledge and creating networks" (Greenhill & Wiebrands, 2008, p.1).

Unconferences boast high levels of participant engagement with minimal burdens on organizers. Their biggest strengths are flexibility, their ability to address timely topics, and opportunities for networking. Negative aspects include questionable buy-in from some teachers, which could lead to questionable participation and impact. Prior to attempting to host an unconference, it is highly suggested that key organizers attend one first to experience it and gain better conceptual

understanding of how it works. Leveraging web-based collaboration tools, such as GoogleApps, are highly recommended to aid in organizing the event. Unconferences can be organized around topics or themes, so as to narrow their scope and allow for attendees to find consensus on topics of interest to a critical mass. For the sake of productivity and accountability, consider appointing facilitators prepared to spur on conversation with jumpstarting questions, and distribute leadership to teachers, asking them to document their process and products from time spent together in sessions.

Reflections for Leadership

In the course of reviewing literature for inclusion in this report, numerous relevant messages were extracted, specifically for those in leadership tasked with implementing innovations for school improvement in the areas of teacher evaluation and professional development.

On evaluation. In discussing principal evaluation, Babo and Villaverde (2013) make a suggestion that is relevant for all levels and roles within our schools, calling for "a system of evaluation and appraisal that focuses...on the development of self-reflective skills and professional renewal and growth" (p.100). A balance between formative and summative evaluation must be struck, and the reason for needing clarity of purpose is made explicit by Marzano (2012): "Measuring teachers and developing teachers are different purposes with different implications. An evaluation system designed primarily for measurement will look quite different from a system designed primarily for development" (p.15).

As is the case with most any initiative in schools, the position of the principal is pivotal in evaluation systems' success or failure. According to Delvaux, et al. (2013),

> *success factors in the implementation and execution of evaluation systems, like useful feedback, credibility of the evaluator, instructional leadership and a positive attitude of the principal...emphasize the central role of the evaluator, in most cases the principal of the school, in the effectiveness of a teacher evaluation system (p.9).*

Principals are critical to, as a 2011 report from the Consortium on Chicago School Research argued, "It is the [pre-observation and post-observation] conversations themselves that act as the true lever for instructional improvement and teacher development" (p.41).

On professional development. According to Belzer (2005), "the first task is for stakeholders to engage in reflection and discussion about the purposes for professional development. It is important that a professional development system ask of itself professional development for what? What is the system, as a whole, trying to accomplish?" (p.42). Further, Belzer suggests starting from points of strengths, encouraging leaders to

> *ensure activities build on practitioners' strengths rather than simply try to fill in knowledge gaps, the approach commonly taken in a 'deficit' model*

> *of teaching and learning. While experienced practitioners may have gaps, they also have a strong base of experience (and sometimes training) on which to build. Professional development activities that build on this base offer opportunities to generate new knowledge which grows out of experience, provide additional resources, develop a wider repertoire of instructional strategies that are a complement to those already in use, and build a great sense of professionalism (p.49-50).*

As highlighted above, the influence of the principal is again worth noting, as Delvaux, et al. (2013) finds

> *leadership characteristics are related to the effects of the [evaluation] system on professional development. Instructional leadership by the principal is positively related to the [evaluation system's] effects on professional development...a more positive attitude of the principal toward the evaluation system is related to greater professional development (p.9).*

Summary

In an effort to better utilize evaluation results to inform personalized professional development for teachers, MERC planning council members called for a study into innovative practices. Upon a review of the literature, seven approaches emerged as possible mechanisms to consider: individual or peer portfolios; National Board Certification; computer-mediated content management; peer evaluation and coaching; computer-mediated coaching; unconferences; and virtual learning communities (VLCs). These innovations represent a wide range of options – from low to high-tech, from face-to-face to computer-mediated, from internal to external oversight and management. The research literature recommends beginning from a place of introspection – clarifying goals and purposes, assessing infrastructure, commitment, timeframe, and resources – and choosing the approach that best matches, all while striving to align actions with best practices and avoid pitfalls common to evaluation and professional development processes.

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