High-Quality Professional Development for Teachers

Supporting Teacher Training to Improve Student Learning

By Jenny DeMonte   July 2013

Center for American Progress

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Introduction and summary

Professional development in education has gotten a bad reputation, and for good reason. Everyone on all sides of the education reform and improvement debate agrees that what most teachers receive as professional opportunities to learn are thin, sporadic, and of little use when it comes to improving teaching. According to Harvard University Professor Heather C. Hill, the "professional development 'system' for teachers is, by all accounts, broken."[1]

One likely reason for this view held by Professor Hill and others is the reliance on short-term, episodic, and disconnected professional learning for teachers—the kinds of training programs that are unlikely to positively influence teaching and improve student achievement.[2] It takes sustained investment of time into teacher training to change instruction and improve classroom outcomes. A review of research on the effect of professional development on increased student learning found that programs had to include more than 14 hours of professional development for student learning to be affected.[3] None of this is lost on the educators on the receiving end of professional development. "Perhaps the most damning indictment of PD [professional development] is that even teachers themselves regard it with contempt," writes Frederick Hess of the American Enterprise Institute.[4]

Yet the education industry—including federal, state, and local education policymakers, plus all those who work to deliver teaching and learning to students—has recently made a sizable bet on the power of professional support to change teaching and boost student learning. From federally supported and locally enacted educator-evaluation systems to the rollout of the Common Core State Standards, the nascent changes to education all require educators to learn new and better ways to do their jobs. Almost every presentation or speech or conversation about educational reform inevitably includes some reference to the amount of support and training teachers and administrators will need in order to make key reforms real and effective in classrooms.

Just how critical is professional learning for teachers to educational improvement? In many ways professional development is the link between the design and implementation of education reforms and the ultimate success of reform efforts in schools. The evaluation of educator effectiveness based on student test scores and classroom observation, for example, has the potential to drive instructional improvement and promises to reveal important aspects of classroom performance and success. That information may, in some cases, be used as the basis for critical personnel decisions such as whether to dismiss an educator or increase his or her salary. But in order to have the impact on student learning that supporters of reform intend, evaluation needs to be accompanied by insightful feedback about teacher performance that leads to a strategic set of professional-learning activities to help educators improve their practice.

State education leaders in many places know this and have specifically included direction for following up evaluation with professional learning in their public descriptions of educator evaluation. Connecticut lists it as a design principle for its "Education Evaluation and Development" system, stating on its website to "Encourage aligned professional development, coaching, and feedback to support teacher growth."[5] Colorado lists "professional development" as a necessary support to its educator-effectiveness system,[6] and the District of Columbia includes educator evaluation and professional development and supports on its webpage titled "Ensuring Teacher Success."[7]

Meanwhile, 45 states and the District of Columbia have adopted the Common Core State Standards, which set out academic expectations for student achievement that have been called rigorous when compared to most standards currently in place in the states.[8] Now, almost three years after the standards were introduced, and about a year away from implementation in most states, educators and policymakers are thinking not only about the demands these new standards will place on students; they are also grappling with the challenges teachers face as the standards inform classroom instruction.[9] Report after report mentions the need for teacher training and instructional support as an essential part of the success of the Common Core State Standards.[10]

But even if these reforms were not in place, the work of improving teacher training and support would still pose a key element of any improvement plan for education. Effective teaching is an activity that can be learned, and the notion that someone is born to teach is simply inaccurate.[11] Improving the practice of teaching—learning to teach better—does not necessarily come from teaching longer.

Experience does not lead directly to better instruction.[12] Enhancing skills, knowing strategies, and understanding content and how to unpack that content in ways that students can understand—these are aspects of teaching that can be learned and improved upon.

Some districts, schools, and teachers are designing, implementing, and experiencing professional-learning opportunities that have the power to improve teaching and enhance student learning. Some states are working on strategies to support teacher learning and that spread the culture of continual improvement to all classrooms. These states aren't alone in this effort; a number of other organizations are creating different kinds of resources to help improve teaching practice—some in relation to the Common Core State Standards and some in conjunction with educator evaluation. These projects and initiatives are not easy: Teachers may need different supports or activities to improve their practice since what works in one school might not work in another. Moreover, all teaching learning and development activities must be integrated with the day-to-day work of teaching and the standards guiding that work.

Given the need to improve the quality of instruction and the lack of clarity and shared knowledge about what systems and activities improve teaching, this is the right time to take stock of what is known; what kinds of activities are currently underway; and what will be needed going forward as reforms roll through the education system. As is often the case in education, successful systems and strategies emerge in many places around the country but these bright spots too often remain hidden to the majority of educational organizations because of geographic distance and the decentralized structure of schooling.

This paper is the first of a periodic series of reports and briefs by the Center for American Progress looking at professional learning—what states and districts are doing that is working, and what policies are in place to support effective teacher-training activities. The work of improving instruction to help students achieve deserves our attention, particularly now when it is an important part of powerful reforms. This report is an attempt to map the landscape of professional learning to prompt ideas that can grow from the foundation—albeit small—that is already in place around professional learning.

Looking for what works:
The research

The complaints about professional development have been well documented and most often cite the following shortcomings:

- It is usually disconnected from the everyday practice of teaching.

- It is too generic and unrelated to the curriculum or to the specific instructional problems teachers face.

- It is infrequent and implemented as a one-shot event or led by an outside consultant who drops in to conduct a workshop and never returns to the school or district.[13]

Much of the research in the past decade shows that the professional development that takes place does not have an effect on student learning.[14] An often-cited analysis of 1,300 studies found than only nine of the studies showed clear, empirical evidence of the effect of professional development on student achievement. The other studies simply weren't designed to allow for that kind of finding.[15] One reason for the scarcity of solid research on professional development is the difficulty in carrying it out.[16] Should a study measure whether professional-learning activities change the way teachers teach? Should it measure only what students learn? Or must it measure both? Just as perplexing is the question of whether researchers should look for individual features that work, or only consider programs as a whole. And how much should school context matter?

Despite the challenges, there is rigorous research on professional learning that shows that it can indeed change the way teachers teach and how much students learn. Seven of the nine studies noted above, for example, resulted in positive growth in student learning, and all included training that was at least 14 hours in duration.[17] There are other studies too: An investigation into the relationship between several professional-development activities and specific teaching practices related to early-reading instruction found a relationship between what teachers learned and how they later taught.[18]

A four-year study funded by the U.S. Department of Education of the effects of a professional- development framework called the Literacy Collaborative found that teachers in grades K-2 using the framework delivered higher-quality instruction, and their students had greater gains in literacy learning.[19] Another study considered whether the students of teachers participating in the Collaborative Language and Literacy Instruction Project, or CLLIP, literacy program posted greater learning gains than students whose teachers were not in the program.[20] The study found that besides improving student learning, the program led to changes in the way teachers taught. An investigation into a coaching model called MyTeachingPartner showed that the students of teachers who received specific feedback to videotaped teaching shared with an instructional coach had higher achievement gains than students of teachers not receiving coaching.[21]

There are also reports from individual school districts that have designed their own professional-learning systems for teachers rather than rely on programs from consultants or vendors. The Long Beach Unified School District, for example, has a highly regarded professional-development system that is homegrown and is improving teaching and learning.[22] Moreover, a noteworthy study that showed greater student achievement in second grade through fifth grade was based on a quasi-experimental design that ensures a higher level of scientific rigor. Principals in the study received support to implement professional learning grade-level meetings, and teachers followed a specific protocol at the grade-level meeting to help them consider and work on improving student learning.[23]

School leaders who manage high-performing schools elsewhere in the world know that central to school improvement is changing the behavior of teachers in order to alter the way they deliver instruction to students.[24] Ben Jensen, director of the school education program at the Grattan Institute in Australia, says that one of the mechanisms behind Shanghai, China's impressive schools is its commitment to developing teachers with the ability to deliver high- quality teaching. According to Jensen, "Shanghai is the first place where I've walked into a school and thought, this is actually really different. It's the best professional learning I've seen for teachers anywhere in the world."[25] What takes place in Shanghai in terms of teacher professional development could, in all likelihood, be described superficially using the same labels used to describe what takes place in the United States to improve teaching. The difference being, however, China's level of focus, expertise, and commitment to improving instruction compared to the United States, not to mention the level of rigor in teaching and learning expected of teachers and students in Shanghai.

Learning from research: The features of professional learning linked to improvement

The studies listed previously are just some of the scientifically based research suggesting that certain professional-learning designs can improve teaching and learning, and what features of these designs have a significant impact. According to the research, high-quality professional-learning opportunities for teachers contain the following five characteristics:

- Aligns with school goals, state and district standards and assessments, and other professional-learning activities

- Focuses on core content and modeling of teaching strategies for the content

- Includes opportunities for active learning of new teaching strategies

- Provides the chance for teachers to collaborate

- Includes follow-up and continuous feedback[26]

The above characteristics indicate that a professional-learning activity meshes with the work of teaching. But the exact structure of professional learning might differ depending on the needs of the teacher, the school, and the district. Although there are only a handful of rigorous research studies on professional development, these have identified activities that can have an impact on teaching and learning. These features alone, however, are not a guarantee that teachers will improve instruction, but instead they are activities that have influenced teaching when well implemented. What follows are brief descriptions of the structures and features of professional development that researchers have found to be related to instructional improvement.

Sustained and regular activities

Researchers and practitioners note that when the traditional programs of professional development—usually single-event, so-called "drive-by" interventions—are replaced by longer-term designs, there is a greater chance that teachers will improve instruction.[27] For example, in the survey of 1,300 studies of professional learning mentioned previously, the one study with the most power effect on raising student achievement had teachers participating in the activity for about 60 hours over six months.[28]

Job embedded

This term has been included in many descriptions of high-quality professional development, often without a definition or explanation of what the term means in relation to the work of teaching. According to the National Comprehensive Center for Teacher Quality, or NCCTQ, professional development is job embedded when it is:

- Grounded in day-to-day teaching practice, and is designed to enhance teachers' instructional practices around content

- Integrated into the workday, and part of a continuous improvement cycle

- Intended to improve student learning

- Directly connected to learning and application in daily practice[29]

- Some of the examples of job-embedded professional learning include:

- A teacher working with a teaching coach to plan and execute a lesson

- A group of teachers meeting to analyze student test scores and discuss ways to change instruction and share important resources

- An instructional facilitator conducting a model lesson for a group of teachers working on a particular instructional practice

- A teacher sending a video clip of her teaching to an off-site coach and they discuss it in an online conference and talk about what could be improved[30]

These are job-embedded activities because they are authentically related to the work of the teachers involved and are informed by what the teachers are doing and need to do. These are not the only possible forms that job-embedded professional learning can take place, but they provide illustrations of how it might look.

Collaboration among teachers about improving teaching

One of many challenges facing teachers is the lack of opportunity to learn from colleagues, particularly in a setting where there is a structure and protocol for revealing excellent teaching practices and having a group of professionals discuss and learn from them. Many of the professional-learning designs that show improvements in teaching and learning include some kind of regular collaboration among teachers in a school or across grade levels—sometimes with an instructional leader—to work on better strategies and practices for teaching.

Coaching

Coaching is often part of professional-development programs and the research that does exist suggests that, like other features listed here, it works in conjunction with other aspects of professional development. If coaching is longer in duration, if teachers collaborate around what they learn from coaching, if they get to observe instruction and then talk about the observation with a coach, then it is more likely to be effective. This feature hinges on the expertise of the coach to do this work. If the coach is not an expert in teaching teachers, then it is unlikely that coaching will be effective.

Use technology wisely

Video can be a useful part of professional development, but like the other features mentioned in this report, it appears to be best leveraged as part of a program that includes other features as well. To illustrate this point, let's look at MyTeachingPartner, a system of professional-development supports developed by the Center for Advanced Study of Teaching and Learning at the University of Virginia. Based on the Classroom Assessment Scoring System, or CLASS, MyTeachingPartner allows a coach to view a teacher's practice on video and work on instructional improvement without the need for real-time, on-site observations

of teaching. This type of remote professional development, linking distant teachers to collaborators, has the promise to change the way education professionals improve their practice. And then there is WestEd, a California-based nonprofit dedicated to improving learning, which operates the Charter School Teachers Online, or CTSO, project that allows charter schools to overcome the geographic and cost barriers to obtaining high-quality professional development. CTSO is developing and facilitating eight new online professional-development courses that bring teachers from many locations together to learn by watching video on instructional practices, discussing best practices, and by probing curricular materials for the best ways to incorporate them in classrooms.

According to researchers, one or more of the above features are almost always part of high-quality professional development, regardless of the subject area; grade level; and location of the classroom, school, or background of the teacher or students. School context should be a key consideration as high-quality professional-learning opportunities are put into place. Simply put, context matters, as it can and will affect the success of the program, for better or worse.[31] It should be obvious that a coach who is an expert on beginning reading, for example, is probably not the best fit for a middle school where students who are struggling with the comprehension of complex text challenge teachers.

The need for some mechanisms or activities to improve the quality of teaching, which in turn leads to greater student achievement, has always been present although at times ignored. But at this moment it's all but impossible not to hear the plea that high-quality professional development be part of widespread school reforms now underway. These reforms—teacher-evaluation reforms and the implementation of Common Core State Standards—hinge on the theory that better instruction will lead to better student achievement. Yet the same shortfalls that plague traditional professional development could end up challenging the success of these reforms.

Professional learning and teacher evaluation: The perfect match

New models of rigorous teacher-evaluation systems have become central to some of the nation's most ambitious school-reform efforts in the past four years. Teacher evaluation is required by the U.S. Department of Education as part of the application process for the Race to the Top grant competition, and must be included as part of a state's application to be waived from meeting some of the requirements under No Child Left Behind, also known as the Elementary and Secondary Education Act. As of 2012, 37 states[32] and the District of Columbia had revised their teacher-evaluation policies to include both student achievement and observations of classroom instruction as components of a teacher's rating. Another key feature of these revised evaluation systems is that rather than being rated on a binary scale—effective versus ineffective—teachers were now being rated on a four- or sometimes a five-point scale. Georgia's revised teacher-evaluation system, which was piloted in the spring of 2012, requires teachers to be classified as exemplary, proficient, developing, or ineffective.[33]

While one goal of the new evaluation systems is to garner information about teachers for human-capital management decisions—such as identifying and dismissing teachers who are ineffective—an important aspect of the system is to specify strengths and weaknesses in instruction and help teachers improve their professional practice.[34] This second goal may be more powerful and critical than the first, at least in terms of truly improving the quality of teaching and overall education for all children. Heather C. Hill and Corinne Herlihy, both of Harvard University's Graduate School of Education, in a set of recommendations for policymakers stress that, "The reform of the teacher evaluation system will see its chief success not through carrots and sticks, but through providing teachers with information about their performance and the means for improvement."[35] Those who study expert performance in many fields find that high-quality feedback helps the novice become competent and eventually skilled, but it is important to remember that it is the quality of the feedback that matters.[36]

Many of the teacher-evaluation systems being designed and implemented by states include provisions requiring that teachers and evaluators meet to talk about the evaluation. In general, the observation portion of teacher evaluation should follow this format: An observer—often a school administrator—uses a rubric with categories of teaching practices to rate the classroom instruction observed and afterward meets with the teacher to talk about what was observed. New Jersey's pilot study of teacher evaluation required all teachers to have at least two observations during the year with pre- and post-observation conferences.[37] Connecticut requires three conferences throughout the school year between the evaluator and the teacher.[38] Guidance in one report on effective teacher evaluation suggests that, "Teachers and instructional managers should come away from these conversations with a shared understanding of what the teacher needs to focus on in the short term and how the instructional manager will help."[39]

The goal of the teacher-evaluator conferences, then, is to provide teachers with careful feedback about their instruction so they can consider how to improve—in essence, a personalized professional-development opportunity. The conferences should be followed by a number of suggestions for specific activities and programs that will help teachers improve in areas where their instructional practice is weak. A teacher, for example, might be told by an evaluator who has just observed his or her instruction that the teacher seemed to have trouble formulating questions in whole-class discussions that will prompt student thinking. (The ability to frame effective questions for students is an area of teaching practice on Charlotte Danielson's Framework for Teaching, and is one of the most commonly used observation rubrics.) To assist a teacher in the above example, the evaluator could direct the teacher to view video clips that show exemplary questioning techniques in a classroom. Or the evaluator could suggest that the teacher participate in some collaborative work with a master teacher who is helping design lessons featuring questioning with others in the school or district. The point is, the evaluation is not simply a summation of a teacher's work, but rather is a jumping-off point for specific and sequenced improvement.

Making sure evaluation leads to instructional improvement

As the new evaluation systems are rolled out in many states, educators are still learning how to use the post-observation conferences to deliver feedback, support, and personalized professional-learning opportunities to teachers. The early reports suggest that this is an area that deserves attention from education policymakers and practitioners.

A study of the Chicago Public Schools' new evaluation system revealed that principals who observed teachers and conducted post-observation conferences generally asked questions of teachers in those meetings that did not prompt discussion about teaching. Instead, principals dominated the conference conversation and asked few, if any, high-level questions about instruction.[40] In Tennessee the state department of education conducted a study of the first-year implementation of evaluation and discovered a wide variation in the level and depth of feedback included in post-observation conferences.[41] Teachers in Connecticut reported similar weaknesses in post-observation conferences and suggested two reasons: a mismatch between the grade level or subject area taught and the knowledge of the evaluator; or that the administrator treated the conference as a compliance activity rather than an opportunity to help teachers learn.[42]

In states out in front on teacher evaluation, it's not clear whether the data that come from classroom observations is informing the kinds of professional-learning activities teachers receive. Reviews of first-year teacher evaluation in Tennessee and New Jersey revealed that teachers did not have access to professional development that was aligned with their evaluation data.[43] But teachers in both states reported that the evaluation process improved the quality of conversations with their administrators about teaching.

There are a number of proposed solutions to the problem of weak post-observation conferences and the lack of appropriate, personalized, robust professional-learning opportunities tied to evaluation data, including the following:

- **Make sure that there is a shared understanding about the evaluation rubric before assessment and observation takes place.** Teachers and evaluators should understand what instructional practices are included on the rubric, how they will be viewed and assessed, and what constitutes excellent teaching. A shared understanding of instruction is a first step in sparking rich and purposeful conversations about improving teaching and learning.

- **Invest in professional development for administrators and other evaluators so they can deliver the kind of feedback teachers need and deserve.** If teacher and evaluator conferences post-observation lead to conversations about teaching practice, and if teachers trust the knowledge and wisdom of the evaluator, it's likely that the evaluation system will be part of a change in culture that leads to continuous improvement.[44]

- **Use data to form groups of teachers to work together on particular skills or content.** In Illinois a number of districts are using data from the entire teacher workforce to find patterns of strengths and weaknesses, and are then using that information to create professional-learning communities for teachers based on those needs.

- **Help evaluators know what kinds of professional-learning opportunities are available so they can have resources available for teachers at post-observation conferences.** This could mean the district or state education offices provide lists of high-quality providers of professional-learning activities with research-based evidence of effectiveness. Or it could mean that states and districts create video libraries of exemplary classroom instruction paired with materials to help teachers improve their practice. This may include identifying excellent teachers whose classrooms are open to other teachers to watch instruction.

The larger goal of evaluation, beyond determining a teacher's effectiveness, is to improve teaching that leads to better learning for all students and to build a system of continuous instructional improvement. Using the data from evaluations to create more powerful systems for professional learning is an integral component of such a system.

A Texas tale

Redesigning professional development in Houston

A little more than a year ago, administrators at the Houston Independent School District, or HISD, partnering with TNTP (formerly The New Teacher Project) to improve human-capital management strategies in the district, decided to completely revamp HISD's professional-development unit and align it directly with its teacher-evaluation system. In the past, the district-based staff in the professional-development unit was charged with responding to requests from school principals to conduct short-term workshops or hire outside consultants to do that work. District officials decided that professional development needed to be handled differently and in a way that would be more likely to improve teaching. That meant dismissing the entire professional-development unit, reorganizing the unit, and bringing in a new team of instructional coaches.

"We interviewed 900 people for 130 spots," says Lance Menster, assistant superintendent for professional development at HISD. The process included a grueling, day-long interview for finalists that required applicants to teach a model lesson, watch an instructional video, and engage in a feedback and role-playing exercise, as well as meet with several interviewers. Those hired, including some former HISD teaching coaches, were deployed as instructional experts in particular grades and subjects. The new hires spent the summer learning about the district's classroom-observation instrument and were trained to deliver coaching and other forms of professional learning centered around improving teaching practice in the areas assessed in teacher evaluation.

Data from the district's first year of the new evaluation system helped Menster and his team determine if particular schools or groups of teachers were struggling in a specific aspect of teaching or around a subject. Armed with this data his department sent coaches to those schools to support teacher learning in the specific areas of weakness. The coaching activities might involve one-on-one time with individual teachers or interaction with groups of teachers who might work with a coach on a particular skill. What distinguishes the new thrust of professional support compared to previous iterations in HISD is that it is now based in the district rather than coming from outside consultants. In addition, it is an ongoing effort that allows the coaches to develop relationships with teachers; one where everyone has a shared understanding of the evaluation rubric and the common language for effective teaching. What's more, the professional learning is tied directly to the evaluation rubric used to evaluate teaching, so teachers can improve on exactly the practices that are associated with the district's framework for instruction.

Besides offering coaching, Houston's professional-development department has video exemplars and effective practices on the district website that show what each instructional practice on the evaluation rubric looks like. The teachers featured in the videos are from the district and teach in district schools across grade levels and content areas. Accompanying each video is a set of supporting materials to aid instruction along with a biography of the featured teacher. "Teachers want examples of what good teaching looks like, so we created a library of video exemplars that clearly demonstrate and model our instructional practice evaluation rubric," says Menster.

What this means for Houston is that the district can deliver "just-in-time" professional development—assistance and encouragement when needed—to teachers who want support before starting on a particular part of the curriculum or who are in need of feedback to help them with an instructional strategy. At the same time the Houston school district can offer ongoing professional learning for teachers that is tailored to their needs and tied into the curriculum and authentic teaching problems. Moreover, all of it is tied into the teacher-evaluation system.

Teacher Advancement Program

Evaluation and professional learning in a single system

The Teacher Advancement Program, or TAP, system brings together teacher evaluation and professional learning into a cohesive and coherent system to support instructional improvement. TAP, which is managed by the National Institute for Excellence in Teaching, is used in about a dozen states and in several hundred school districts. The core of the TAP system is a complex rubric of 19 indicators complete with descriptors that outline what constitutes good teaching practices. These indicators drive teacher evaluations and the professional learning that accompanies it.

Teachers at TAP schools are observed and evaluated at least three times a year with the goal of delivering precise feedback to teachers in specific areas that might be ripe for refinement and identifying areas of strength. In addition to administrators, master and mentor teachers also conduct a significant number of evaluations, which embeds the work of instructional improvement with the teacher workforce in the school. TAP requires that schools implement career ladders for teachers with varied steps and responsibilities, and different pay scales—giving teachers opportunities to take on new roles and tasks.

Augmenting the feedback that teachers receive from evaluations, teachers work in groups called clusters that are arranged around different aspects of a teacher's assignment. A school might, for example, have a grade-level cluster of teachers and it also might have a cluster of teachers organized by subject. These clusters, which meet during scheduled common prep time, are led by master teachers and concentrate on strategies related to student need and the 19 indicators on the rubric that will improve instruction and student learning.

TAP's parent organization offers data management, as well as intensive training and support for districts as they implement the complicated and tightly aligned evaluation and professional-learning system, along with the differentiated career paths and compensation programs. TAP-based teacher-quality improvement projects in districts have been awarded more than $500 million since 2006 through the federal Teacher Incentive Fund, a competitive grant program run by the U.S. Department of Education.

Professional development and learning to teach the Common Core State Standards

The Common Core State Standards are as powerful as teacher-evaluation policies in their potential to reshape education in the United States. The standards, developed by a coalition of the National Governors Association and the Council of Chief State School Officers, are based on best practices in education nationally and internationally, and are designed to ensure that U.S. students are ready for college, careers, and to compete in the global economy.[46] For all primary and secondary grades, the Common Core State Standards includes dramatic shifts in the focus of student learning and student work. The English language arts standards place an emphasis on understanding informational and complex texts and citing evidence from texts. The mathematics standards call for deepening the work on fewer topics, increasing rigor, and creating coherence across grades in mathematics.[47]

While the standards for each grade level are explicit in terms of what students are expected to learn in English language arts and mathematics, they do not specify a single way to teach.[48] The Common Core State Standards allow all educators to share goals for instruction, but the standards are not curriculum or pedagogy. Common standards encourage all teachers across the states to design best practices and share what works in ways that have not previously been possible. The standards present a powerful opportunity to bring varied, disorganized aspects of schooling together into what could be an interlocking and coherent system that leads to greater student learning across schools, districts, and states. "There is a 'common' in Common Core, which means that high-quality resources for teaching and learning can be shared broadly," says Katya Levitan-Reiner, the director of the field impact team at Student Achievement Partners, an organization founded by three of the contributing authors of the Common Core State Standards.[49]

Yet that opportunity comes with enormous challenges as well. If the ultimate intention of the Common Core State Standards is to raise the level of learning and achievement among students, then the interim goal must be to improve the quality of instruction to help students boost achievement. Moreover, changing the behavior and professional practice of teachers will require intensive and high-

quality opportunities for professional learning—with a strong focus on content that engages teachers to learn, is sustained over time, and involves collaboration and feedback from colleagues.[50] Such professional development for teachers will be an essential element of the success of the policy. Thus far it appears that all but one of the 45 states and District of Columbia that have adopted the standards have some kind of plan for teacher learning embedded in their Common Core State Standards efforts.[51]

When asked by pollsters about their reaction to the new standards, the majority of teachers say that they approve of the Common Core State Standards and they believe that the standards will help them improve their teaching.[52] Nonetheless, teachers are fully aware that they need additional training to teach the Common Core State Standards. According to a May 2013 poll of 800 teachers—all members of the American Federation of Teachers—more than half said they had not received adequate training to teach the standards.[53] A different poll of 670 teachers conducted by Editorial Projects in Education found that most teachers had received up to four days of professional development in the Common Core State Standards, which were delivered in structured settings or workshops, and often by school or district colleagues. Most of those teachers reported that they felt "moderately well prepared" to teach the standards in general, but were far less confident in their ability to teach the standards to English-language learners or students with disabilities.[54]

What makes efforts to train and support teachers in the Common Core State Standards so important is that the effect of the standards on student learning depends entirely on teachers' ability to improve instruction to help students achieve. This is why the Common Core State Standards should be considered a classroom-level school reform.[55] The policymakers and advocates who have called for and supported the adoption of the standards have repeatedly said that support and training for teachers are critical components of the standards' implementation. The standards will gain traction and power inside classrooms and schools, and the evidence for their impact will come out of the achievements of students who are taught.

Certainly, there is more to the implementation of the Common Core State Standards than just professional development for teachers—elements such as selecting and using curriculum materials wisely and using new assessments to help drive instruction—but these areas are beyond the scope of this particular report. Thus the recommendations presented below are limited to professional learning around the Common Core State Standards.

- **Provide needed support for professional-development activities.** This will mean different things in different locations. In some states, educators might need a comprehensive suite of resources to improve instruction. In others, a district might need to provide materials and nothing more because school administrators and teachers are working on instruction at the building level. But regardless of the location and level—state or district—educators will need support in the delivery of instruction supportive of the Common Core Standards, and all who are involved in education need to be prepared to offer that support.

- **Share resources with educators throughout the United States.** One of the great bonuses of the Common Core State Standards is that a lesson plan or teaching strategy developed in one district can be used in another because the standards are shared. There are already a number of organizations that are creating resources to improve teaching and are making them available online. Student Achievement Partners, the nonprofit that has as its mission to improve student academic achievement, for example, has created a variety of products that can be used by teachers to support instruction in the Common Core State Standards. Likewise, the American Federation of Teachers has a website called "Share My Lesson" where teachers can share resources for teaching, including those aligned with the Common Core State Standards.

- **Use technology to serve improved teaching.** The Common Core State Standards are online as are many resources geared to supporting teachers and teaching. Video exemplars of teaching the Common Core State Standards are being produced and made available by a number of organizations. Educators, no matter where they are in the United States, have access to these videos and can use them to shape professional-learning opportunities at schools and in districts. In fact, technology will likely turn out to be among the critical resources in the success of the standards.

Conclusion and recommendations

It's no secret that there is potential to improve the quality of teaching through the utilization of high-quality professional development. We have abundant evidence that practitioners in other professions—nurses, engineers, and pilots—as well as those in the skilled trades—plumbers, hairdressers, and chefs—learn and improve their skills by collaborating with colleagues and sharing knowledge about best practices. As a nation we invest a lot of money in this belief—by some estimates as much as $20 billion annually in total federal, state, and local funds for educator professional development.[56] What's more, we're counting on this investment paying off and playing an important role in the success of sweeping educational reforms. Yet we're still learning how to ensure that professional development delivers the results we desire.

Why exactly is this the case? Why aren't the powerful systems necessary to improve teaching already in place? The fragmented organization of education is one impediment. The way our public education system is currently structured leaves it to each school district to come up with its own plan to improve teaching since there is no single, agreed-upon set of resources, activities, and systems readily available to all educators. Moreover, there are no sets of teaching practices that have been identified and agreed upon as essential and fundamental for all teachers to know, understand, and master. As a result, administrators who choose or design professional learning for teachers may have few readily available resources or standards for determining what is the best and most effective template to follow. Fortunately, this situation could change for the better when states begin to implement the Common Core State Standards and educators have the opportunity to share materials and best practices using a common framework with common goals.

Another hurdle facing educators tasked with designing and implementing professional-learning activities at the local level is being able to know what programs have evidence of demonstrated effectiveness. What further complicates the work of selecting professional-learning activities is that there are no features or programs that always work in every setting. Rather, professional development is as

complex as teaching. To put it another way, it is teaching, but once removed from the classroom. Professional development is about teaching teachers. High-quality professional learning does so with an eye on using what teachers already know and building on that expertise to improve their teaching—it is not about pouring content into teachers and then expecting them to instantly use what they learn. Just as students need to learn new content and skills over many days and many lessons, teachers also benefit from sustained professional learning that builds over time.

It is critical that educators at all levels pay attention to and report on the quality and effectiveness of professional-development activities. Unfortunately, as educators place big bets on the power of professional development to improve teaching, and by extension, student learning, there are few exemplars of professional-learning systems that have been evaluated and been shown to be effective, including those mentioned previously. Some research indicates that there are certain features of professional-development programs that lead to improved teaching and learning, including coaching and mentoring, collaboration among colleagues, observing and discussing classroom practice, and having professional development of sufficient duration that teachers actually have the time to learn and improve.[57] But few professional-learning systems have been subject to rigorous evaluation, and much of what passes for evidence of effectiveness is mostly anecdotal, coming from a single school or district.[58] Therefore, it is critical that we evaluate, study, and share findings on professional-learning activities so best practices can spread to more schools.

Having made the argument for more critical evaluation, that is not to say that improving teaching is a complete mystery. There are some structures that we know need to be in place so strong professional learning can take root in schools and districts as part of the regular, continuous work of teaching, including:

• **Establishing a strong evaluation system that identifies strengths and weaknesses in teaching practice.** If a teacher evaluation leads to productive conferences about teaching, collaboration among teachers to learn and improve their work in classrooms, and ultimately allows expert teachers to support and train their peers, then evaluation would be a success as a professional-learning opportunity. Putting such a system in place is key to improving professional learning for teachers.

- **Encouraging administrators in schools, districts, and state education agencies to take steps to become experts in changing standards—specifically in relation to the Common Core State Standards and new student assessments—and making sure teachers are aware of these.** This first step is to make sure all educators know when standards and assessments change so they can be prepared.

- **Supporting administrators in schools, districts, and state education agencies in the creation and collection of resources about new standards and assessments to help teachers maintain and improve classroom instruction.** While teachers work each day to improve student learning, administrators elsewhere in the educational system can support that work by making sure every teacher has whatever she or he needs to offer excellent instruction. Those resources range from giving teachers access to video equipment to record their instruction to share with peers to ensuring that every district's instructional coaching staff fully supports high-quality teaching, which is a key component of professional learning and growth.

- **Adapting staffing, the organization of the school day, and the other basic structures of schools to support better teaching.** The most capable teachers might be able to share their expertise by spending part of their time coaching other teachers, which means that it might be important to reconsider staffing structures. Or perhaps groups of teachers might be able to learn from each other or from a coach or expert if they had time to meet about student data and instructional practices. To get that time it might be necessary to reconfigure the school day to free up teachers to collaborate. There are other basic structures in schools that could be redesigned to improve teaching and learning.

The time has passed when we can simply allow a teacher to walk into classrooms, close the door, and just wing it alone. Few—if any—professions allow practitioners to work in such a manner. The fact of the matter is people become better at their jobs by observing and sharing with experts in their field as they do their work. Given what we want and expect our teachers to be able to do—turn out students who are college and career ready—it is critical that we give them the tools and support that will allow them to learn, improve, and do their jobs better even as we hold them accountable for their work.

About the author

Jenny DeMonte is the Associate Director for Education Research at American Progress. Her research work focuses on school and instructional improvement, teacher preparation and teacher quality, and measuring teaching and learning. Prior to joining the Center for American Progress, she was public affairs manager at the University of Michigan School of Education where she helped staff the council charged with designing a teacher evaluation system.

She was also a postdoctoral researcher at the University of Michigan School of Education, where she worked on several projects, including the Measures of Effective Teaching project as part of a team designing measures of teacher knowledge for teaching English language arts.

DeMonte holds a bachelor's degree from Hampshire College in Amherst, Massachusetts, and a master's and doctorate in educational research and policy from the University of Michigan.

Endnotes

1 Heather C. Hill, "Fixing Teacher Professional Development," *Phi Delta Kappan* 90 (20) (2009), available at http://www.pdkmembers.org/members_online/publications/Archive/pdf/k0903hil.pdf.

2 R.C. Wei, Linda Darling-Hammond, and Frank Adamson, "Professional Development in the United States: Trends and Challenges" (Dallas, TX: National Staff Development Council, 2010).

3 Kwang Suk Yoon and others, "Reviewing the Evidence on how Teacher Professional Development Affects Student Achievement" (Washington: U.S. Department of Education, Institute of Education Science, National Center for Education Evaluation and Regional Assistance, 2007), available at http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/rel_2007033.pdf.

4 Frederick Hess, "'More PD': The Easy (But Ineffectual) Answer," Rick Hess Straight Up blog, February 14, 2013, available at http://blogs.edweek.org/edweek/rick_hess_straight_up/2013/02/more_pd_the_easy_but_ineffectual_answer.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+RickHessStraightUp+%28Rick+Hess+Straight+Up%29.

5 State of Connecticut Department of Education, "Connecticut's System for Educator Evaluation and Development (SEED)," available at http://www.connecticutseed.org/?page_id=449 (last accessed July 2013).

6 Colorado Department of Education, "Attracting, Preparing and Supporting Effective Educators," available at http://www.cde.state.co.us/EducatorEffectiveness/index.asp (last accessed July 2013).

7 District of Columbia Public Schools, "Ensuring Teacher Success," available at http://www.dc.gov/DCPS/In+the+Classroom/Ensuring+Teacher+Success (last accessed July 2013).

8 Gene Wilhoit, "States Raise the Bar With Standards Implementation," *Education Week*, June 22, 2012, available at http://www.edweek.org/ew/articles/2012/06/22/36wilhoit.h31.html.

9 Anthony Rebora, "Math Teachers Strive to Bring Core to At-Risk Students," *Education Week*, March 13, 2013, available at http://www.edweek.org/tm/articles/2013/03/13/ccio_math_at-risk.html.

10 Morgan Polikoff, "The Common Core Standards and Teacher Quality Reform" (Washington: American Enterprise Institute, 2013), available at http://www.aei.org/paper/the-common-core-standards-and-teacher-quality-reforms.

11 Francesca Forzani, "High-Leverage Practices for Competent Beginning Teaching," available at http://www.teachingworks.org/images/files/2013_CT_Dept.of_ED.pdf (last accessed July 2013).

12 Marc Tucker, "Teacher Quality: Three Views of How to Get It," Top Performers blog, February 14, 2013, available at http://blogs.edweek.org/edweek/top_performers/2013/02/teacher_quality_three_views_of_how_to_get_it.html.

13 Hill, "Fixing Teacher Professional Development"; Linda Darling-Hammond and others, "Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad" (National Staff Development Council, 2009), available at http://www.learningforward.org/docs/pdf/nsdcstudy2009.pdf.

14 Douglas Harris and Tim Sass, "Teacher Training, Teacher Quality, and Student Achievement," *Journal of Public Economics* 95 (2011); Kwang Suk Yoon and others, "Reviewing the evidence on how teacher professional development affects student achievement" (Washington: Institute of Education Sciences, 2007), available at http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/rel_2007033.pdf.

15 Yoon and others, "Reviewing the evidence on how teacher professional development affects student achievement."

16 Thomas Guskey, "Closing the Knowledge Gap on Effective Professional Development," *Educational Horizons* 87 (4) (2009).

17 Yoon and others, "Reviewing the evidence on how teacher professional development affects student achievement."

18 Sharon Walpole, and others, "The Relationship Between Coaching and Instruction in the Primary Grades: Evidence from High-Poverty Schools," *The Elementary School Journal* 111 (1) (2010).

19 Gina Biancarosa, Anthony S. Bryk, and Emily R. Dexter, "Assessing the Value-Added Effects of Literacy Collaborative Professional Development on Student Learning," *The Elementary School Journal* 111 (1) (2010).

20 Michelle V. Porche, Daniel H. Pallante, and Catherine Snow, "Professional Development for Reading Achievement: Results from the Collaborative Language and Literacy Instruction Project," *The Elementary School Journal* 112 (4) (2012).

21 Stephen Sawchuk, "Teacher-Coaching Boosts Secondary Scores, Study Finds," Teacher Beat blog, August 18, 2011, available at http://blogs.edweek.org/edweek/teacherbeat/2011/08/teacher-coaching_boosts_scores.html.

22 Stephen Smith, "In One California District, Teachers Help Teachers Get Better," The Hechinger Report, February 19, 2013, available at http://hechingerreport.org/content/in-one-california-school-district-teachers-help-teachers-get-better_11202/.

23 William M. Saunders, Claude N. Goldenberg, and Richard Gallimore, "Increasing Achievement by Focusing Grade-Level Teams on Improving Classroom Learning: A Prospective, Quasi-Experimental Study of Title I Schools," *American Educational Research Journal* 46 (4) (2009).

24 Ben Jensen and Joanna Farmer, "School Turnaround in Shanghai: The Empowered Management Approach to Improving School Performance" (Washington: Center for American Progress, 2013), available at http://www.americanprogress.org/issues/education/report/2013/05/14/63144/school-turnaround-in-shanghai/.

25 The video of the event can be viewed here: http://www.americanprogress.org/events/2013/05/06/62403/what-can-u-s-schools-learn-from-other-countries/.

26 Adapted from Sarah Archibald and others, "High-Quality Professional Development for All Teachers: Effectively Allocating Resources" (Washington: National Comprehensive Center for Teacher Quality, 2011), available at http://www.gtlcenter.org/sites/default/files/docs/HighQualityProfessionalDevelopment.pdf.

27 Craig Jerald, "Movin' It and Improvin' It!" (Washington: Center for American Progress, 2012), available at http://www.americanprogress.org/issues/education/report/2012/01/23/10982/movin-it-and-improvin-it/.

28 Yoon and others, "Reviewing the evidence on how teacher professional development affects student achievement."

29 Andrew Croft and others, "Job-Embedded Professional Development: What It Is, Who Is Responsible, and How to Get It Done Well" (Washington: National Comprehensive Center for Teacher Quality, 2010), available at http://www.learningforward.org/docs/pdf/jobembeddedpdbrief.pdf?sfvrsn=0.

30 Croft and others, "Job-Embedded Professional Development: What It Is, Who Is Responsible, and How to Get It Done Well."

31 Jerald, "Movin It and Improvin' It!"

32 National Council on Teacher Quality, "State of the States 2012: Teacher Effectiveness Policies" (2012), available at http://www.nctq.org/p/publications/docs/Updated_NCTQ_State%20of%20the%20States%202012_Teacher%20Effectiveness%20Policies.pdf.

33 Dr. John D. Barge, Overview to the 2012 TKES/LKES Pilot Evaluation Report" (Atlanta: Georgia Department of Education, 2012), available at http://www.doe.k12.ga.us/School-Improvement/Teacher-and-Leader-Effectiveness/Documents/Pilot%20Report_Overview%20and%20Report%20Combined%201-10-13.pdf.

34 Jerald, "Movin It and Improvin' It!"

35 Heather C. Hill and Corinne Herlihy, "Prioritizing Teaching Quality in a New System of Teacher Evaluation" (Washington: American Enterprise Institute, 2011), available at http://www.aei.org/files/2011/11/09/-eduo-november-2011_130927384655.pdf.

36 Jerald, "Movin It and Improvin' It!"

37 William Firestone and others, "New Jersey Teacher Evaluation, RU-GSE External Assessment, Year 1 Report" (New Brunswick, NJ: Rutgers University Graduate School of Education. 2013), available at http://www.state.nj.us/education/archive/EE4NJ/presources/RUGSE11-12.pdf.

38 "PEAC guidelines for Connecticut Teacher Evaluation," available at http://www.connecticutseed.org/wp-content/uploads/2012/09/Adopted_PEAC_Guidelines_for_Teacher_Evaluation.pdf (last accessed July 2013).

39 The New Teacher Project, "Teacher Evaluation 2.0" (2010), available at http://tntp.org/assets/documents/Teacher-Evaluation-Oct10F.pdf?files/Teacher-Evaluation-Oct10F.pdf.

40 Lauren Sartrain and others, "Rethinking Teacher Evaluation in Chicago: Lessons Learned from Classroom Observations. Principal-Teacher Conferences, and District Implementation" (Chicago: Consortium on Chicago School Research, 2011), available at http://ccsr.uchicago.edu/sites/default/files/publications/Teacher%20Eval%20Report%20FINAL.pdf.

41 Tennessee Department of Education, "Teacher Evaluation in Tennessee: A Report on Year 1 Implementation" (2012), available at http://www.tn.gov/education/doc/yr_1_tchr_eval_rpt.pdf.

42 Morgaen Donaldson, "Teachers' Perspectives on Evaluation Reform" (Washington: Center for American Progress, 2012), available at http://www.americanprogress.org/issues/education/report/2012/12/13/47689/teachers-perspectives-on-evaluation-reform/.

43 Tennessee Department of Education, "Teacher Evaluation in Tennessee: A Report on Year 1 Implementation"; Firestone and others, "New Jersey Teacher Evaluation, RU-GSE External Assessment, Year 1 Report."

44 Morgaen Donaldson, "So Long Lake Wobegon? Using Teacher Evaluation to Raise Teacher Quality" (Washington: Center for American Progress, 2009), available at http://www.americanprogress.org/issues/education/report/2009/06/25/6243/so-long-lake-wobegon/.

45 Houston Independent School District, "Professional Support & Development," available at http://houstonisdpsd.org/ (last accessed July 2013).

46 National Governors Association for Best Practices and Council of Chief State School Officers, "Reaching Higher: The Common Core State Standards Validating Committee" (2010), available at http://www.corestandards.org/assets/CommonCoreReport_6.10.pdf.

47 "Common Core Shifts," available at http://www.achievethecore.org/files/5713/6508/7343/2-pager.pdf (last accessed July 2013).

48 Andrew Porter and others, "Common Core Standards: The New U.S. Intended Curriculum," *Educational Researcher* 40 (3) (2011).

49 Personal communication from Katya Levitan-Reiner, June 13, 2013.

50 Peter Youngs, "Using Teacher Evaluation Reform and Professional Development to Support Common Core Assessments" (Washington: Center for American Progress, 2013), available at http://www.americanprogress.org/issues/education/report/2013/02/05/51410/using-teacher-evaluation-reform-and-professional-development-to-support-common-core-assessments/.

51 Polikoff, "The Common Core Standards and Teacher Quality Reform"; Education First and Editorial Projects in Education, "Moving Forward: A National Perspective on States' Progress in Common Core Standards Implementation Planning" (2013), available at http://www.edweek.org/media/movingforward_ef_epe_020413.pdf.

52 Hart Research Associates, "Teachers Assess Implementation Of The Common Core" (2013), available at http://www.aft.org/pdfs/press/ppt_ccss-pollresults2013.pdf; Editorial Projects in Education Research Center, "Teacher Perspectives on the Common Core" (2013).

53 Hart Research Associates, "Teachers Assess Implementation Of The Common Core."

54 Editorial Projects in Education Research Center, "Teacher Perspectives on the Common Core."

55 Kathleen Porter-Magee, "Opening Up the Black Box: Common Core as a Classroom Level Reform," Thomas B. Fordham Institute, March 11, 2013, available at http://www.edexcellence.net/commentary/education-gadfly-daily/common-core-watch/2013/opening-up-the-black-box-common-core-as-a-classroom-level-reform.html.

56 Thomas R. Guskey and Kwang Suk Yoon, "What Works in Professional Development?", *Phi Delta Kappan* 90 (7) (2009).

57 Laura M. Desimone and others, "Effects of Professional Development on Teachers' Instruction: Results from a Three-year Longitudinal Study," *Educational Evaluation and Policy Analysis* 24 (2) (2002).

58 Thomas R. Guskey and Kwang Suk Yoon, "What Works in Professional Development?"

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