



THE ASPEN INSTITUTE

EDUCATION & SOCIETY PROGRAM

Developing a Professional Learning System for Adults in Service of Student Learning

2300 N St. NW
Washington DC, 20010

[www.aspeninstitute.org/programs/
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Executive Summary

For students to become powerful learners, their teachers must engage in powerful learning themselves. Yet the professional learning many teachers experience is often disconnected from the curriculum, disconnected from specific students and their learning needs, and disconnected from their daily work. What’s needed is a tightly connected *systems* focus on continually increasing the knowledge and skills of teachers in their context, with their colleagues, as central to improving student learning. At its heart this is an equity issue, ensuring that all students in a system have equal access to rich, high-quality learning.

Guiding Principles for a Professional Learning System

FROM	TO
Teaching viewed as simple work	Teaching rigorous content to a deep level of comprehension acknowledged as complex, intellectually demanding work
Content-agnostic, skills-based training	High-quality, standards-aligned instructional materials are at the heart of meaningful professional learning
Professional development evaluated based on satisfaction surveys	Evidence of students’ social, emotional, and academic development guides the focus of professional learning and is the ultimate measure of its effectiveness
Professional learning driven by central office	School is where teachers’ most important professional learning happens
School leaders’ primary way of improving instruction is to observe and evaluate teachers in individual classrooms	School leaders create the conditions that support professional learning, establish a research-based vision for that learning, and ensure those conditions improve over time
Professional development is a compliance activity and all teachers are treated the same	Professional learning is facilitated by expert teachers and is differentiated to address the specific needs of teachers and the students they serve
Teacher and leader quality and content expertise inequitably distributed across schools and classrooms	Professional learning systems intentionally address equity by improving instruction in every classroom across the system, and by ensuring teachers develop the ability to adapt curriculum and instructional materials to meet all students’ needs in culturally affirming and sustaining ways
Professional learning is a remedial activity focused on the individual	Professional learning is a collaborative, forward-looking change management activity

The framework that follows attempts to make visible the coordinated, multiple parts of a system needed to support deep, effective professional learning for adults so that they can improve student learning outcomes. Our goal is to support system leaders who embrace professional learning as key to ensuring that each student engages in rich learning experiences every day and each teacher has an opportunity to reach their potential. The framework is based on extensive research and discussion among teachers, school and districts leaders and partner organizations. We fully expect it to keep evolving based on learning from applying the framework and exploring its implications as well as from input from the field.

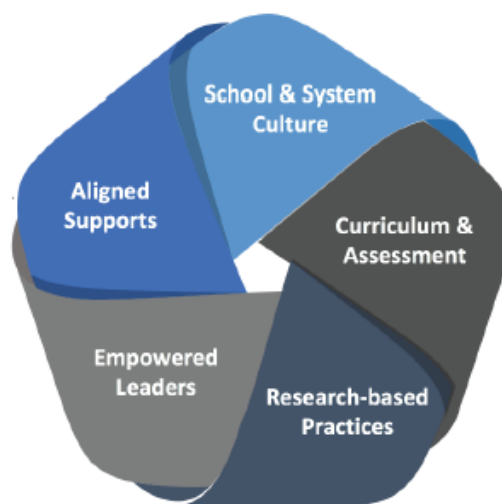
Elements of a Professional Learning System

The school and system culture support trust, collaboration, and continuous improvement, all of which are essential for adult learning.

1. The system encourages teachers and school leaders to embrace a learning stance and to be vulnerable. Policies explicitly recognize and reward the behaviors of “lead learners.”
2. The social conditions in schools—trust, sharing, and collaboration—support professional learning.

The curriculum and assessments teachers use with students are front and center in professional learning to ensure its relevance.

3. High-quality, standards-aligned instructional materials are at the heart of meaningful professional learning.
4. Evidence of students’ social, emotional, and academic development is an indispensable resource that grounds professional learning. Multiple types and forms of student learning data align to standards and to each other so that decisions and judgments made at different levels of the system mutually reinforce each other.



High-quality professional learning is grounded in research about the characteristics that make it effective.

5. Professional learning deliberately and explicitly models the rigorous, engaging, and relevant learning activities expected of students.
6. Routines for repeated practice, close analysis of practice, and feedback on practice are built into professional learning – and into the schedules and routines of schools.

Leadership at both the school and teacher level is essential to create the conditions under which professional learning takes root and flourishes.

7. School leaders create the conditions under which professional learning happens, including distributed leadership and time.
8. Deep content and pedagogical content knowledge exists among the faculty in all schools in order to sustain professional learning in the context of teachers’ daily work.

Central office departments and external partners align their work in service and support of schools as the place where teachers’ most important professional learning occurs.

9. Central office teaching and learning departments are held accountable for understanding and responding to educators’ professional learning needs and for supporting the work of professional learning in schools.
10. The whole human capital and performance management system reflects the priority placed on professional learning.

Learning is the reason schools exist. It must be the work of school leaders and teachers as well. A professional learning system is an essential strategy for advancing equity because it is designed to improve instruction in every classroom across the system, thereby touching every student. Prioritizing professional learning demands a systems approach. Such an approach allows system leaders to coordinate multiple changes—in governance, data and accountability, human capital policy, etc.—to ultimately achieve the changes we want to see in schools and in student learning.

Introduction

For students to become powerful learners, their teachers must engage in powerful learning themselves. Yet the professional learning many teachers experience is anything but powerful. More often, it is disconnected from the curriculum, from specific students and their learning needs, and from the daily work of teachers.

We must turn this picture on its head by putting the ongoing work that teachers do with their students in their classrooms with their curriculum at the center of their professional growth. Focusing narrowly on improving the content and format of discrete professional learning activities is not enough. The emphasis must be on continually helping educators get better in a coordinated fashion. In short, improving student learning requires a *system* dedicated to continually increasing the knowledge and skills of teachers in their context, with their colleagues, by addressing specific opportunities to improve their instruction.

The distance between our aspirations for student learning and current performance – despite decades of concerted efforts to improve professional development – underscores the urgency of a new, systemic approach to teacher learning. We envision students who can think critically, with confidence, and are ready and committed to play their role as citizens in a democracy. College- and career-ready standards support this vision and dramatically increase expectations for student learning and teaching practice. But realizing these expectations requires a systemic and systematic focus on increasing the capacity of teachers so they deeply understand the standards and their rigor, how to design learning experiences that bring the standards to life, how to assess students' progress, and how to continuously improve instruction and student achievement.ⁱ

At its heart, this is an equity issue: all students deserve equal access to instructional materials and learning environments grounded in high expectations, and to teachers who are supported and prepared to help them reach those expectations. This requires organizing schools and school systems to support and facilitate sustained adult learning as a prerequisite to improved outcomes for students.ⁱⁱ The value of a professional learning system lies as a means to improved student learning and achievement, not as an end in itself.

Just as teachers are responsible for facilitating student learning and outcomes, schools and the school system are responsible for facilitating teacher learning and improved practice. A *professional learning system* tightly integrates the multiple structures and systems that influence the learning of teachers and school leaders, all in service of improving instruction and student learning.ⁱⁱⁱ Such a system recognizes adult learning as an embedded and ongoing aspect of educators' daily work and integrates every aspect of their work into a cohesive whole. In doing so, it counteracts the tendency of school systems to undermine the efficacy and utility of professional learning by treating elements discretely that should reinforce each other.

This vision implicates educators up and down the system – from teachers and principals to central office staff and superintendents, as well as external partners. It touches multiple aspects of school system policy and administration that all impact teaching practice, including: assessments, data, and accountability; human capital policies and practices; and school supervision and school improvement strategies, to name a few. It also requires external professional development, technical assistance, and support providers to align their work in support of this vision.

This framework attempts to make visible the coordinated, multiple parts of a system needed to support deep, effective professional learning for adults so that they can improve student learning outcomes. The goal is to support system leaders who embrace professional learning as key to ensuring that each student engages in rich learning experiences every day and each teacher has the opportunity to reach their potential.

The framework is based on extensive research and discussion among the districts, states, and partners involved with the Aspen Education & Society Program. Aspen plans to develop collateral materials and fully expects the framework to evolve based on learning from applying the framework and exploring its implications.

Guiding Principles of a Professional Learning System

The professional learning system that we envision achieves coherence by adhering to a core set of guiding principles, based on research and experience in the field. These principles are not designed to be taken up selectively but rather collectively, in order to create a more powerful and cohesive whole:

- Teaching rigorous content to a deep level of comprehension for all students is remarkably complex work. It requires careful preparation to develop knowledge about content and how to teach it;^{iv} how to integrate the social, emotional, and academic dimensions of learning; and how to develop instructional strategies that address the diversity of student learning needs. Ongoing cycles of collaborative planning, practice, doing, assessing, and improving are recognized, respected, and supported as the core work of teachers and those who support teachers.
- A professional learning system should be designed to advance equity by improving instruction in every classroom across the system, thereby touching every student.^v This means that system issues of inequity – such as the inequitable distribution of teacher and leadership quality and context expertise across schools – must be addressed.
- High-quality, standards-aligned, and culturally relevant instructional materials are at the heart of meaningful professional learning. These materials ground teachers’ learning in the work they do with students and serve as both a focus and a catalyst for professional learning. A professional learning system further advances equity by ensuring that teachers develop the ability to adapt curriculum and instructional materials to meet all students’ needs in culturally affirming and sustaining ways while maintaining high standards.¹
- Evidence of progress in students’ social, emotional, and academic development guides the focus of professional learning and is the ultimate measure of its effectiveness.^{vi} Multiple types and forms of student learning data (e.g. teacher observations, student products and performances, formal interim assessments, summative tests results, surveys of school climate and culture) align to standards and to each other so that decisions and judgments made at different levels of the system mutually reinforce each other.
- High-quality professional learning for teachers is embedded in the context and professional community of the school. Central office functions related to teaching and learning serve the school and support schools as the place where teachers’ most important professional learning happens – this gives meaning and substance to the phrase “school as the unit of change” for improving student outcomes.

¹ A 2015 study examined the efficacy of a curriculum-based intervention for teachers of high school science students and found that professional development was most effective when it is grounded in specific, high-quality instructional materials. To review the research, see Joseph A. Taylor et al., “An Efficacy Trial of Research-Based Curriculum Materials with Curriculum-Based Professional Development,” *American Educational Research Journal*, October 2015, <http://journals.sagepub.com/doi/abs/10.3102/0002831215585962>.

- The work of school leaders (principals and teacher leaders) is to create the conditions that support professional learning, establish a research-based vision for that learning, and ensure that these conditions improve over time, with critical input from teachers. School leaders are the critical architects of a school’s available resources, including the time, expertise, and mechanisms that enable teachers to engage in sustained, high-quality professional learning.^{vii}
- Teachers are engaged as leaders in their own learning. Differentiated roles enable teacher-leaders to facilitate learning among their peers, including modeling instruction, providing feedback to peers, and planning inquiry/continuous improvement cycles. An Instructional Leadership Team (ILT) or similar construct distributes instructional leadership across a diverse group of faculty and administrators² and is responsible for the design and implementation of the school’s professional learning system.³
- Professional learning is a change management activity. The goal is both to deepen teachers’ knowledge and to motivate and inspire them to change their practice in service of improved student social, emotional, and academic development.^{viii} This happens (or doesn’t) in a social context where peers, culture, and climate are vitally important, and it requires both structural (technical) and cultural (adaptive) changes.^{ix}

Embracing a systemic approach to improving professional learning presents a significant challenge in a public education sector replete with discrete, often uncoordinated initiatives. It requires system leaders to prioritize and sequence intended changes based on their current conditions, capacity, available resources, and the climate of trust and appetite for change in the system. For a systemic approach to be a strategic approach, not everything that deserves attention can be attended to at the same time.

Elements of a Professional Learning System

The School and System Culture Support Trust, Collaboration, and Continuous Improvement, All of Which Are Essential for Adult Learning

Learning and improvement happen when learners (adults and children) feel safe and motivated to take chances, experiment, and make mistakes, all in the service of learning.^x When feedback accompanies this work, learning and improvement accelerate. Learning happens in a social context and depends on a shared set of habits among adults that de-privatizes practice, supports openness and collaboration, and honors inquiry. Creating a culture that supports risk-taking, vulnerability, sharing, collaboration, and continuous improvement provides the foundation for a professional learning system.

1. **The system encourages teachers and school leaders to embrace a learning stance and to be vulnerable** in acknowledging areas where they need development.^{xi} Leaders act as “lead learners” by modeling the habits of not knowing, exploring, inquiring, practicing, and seeking feedback to support this culture.^{xii}

² As Linda Lambert noted in “A Framework for Shared Leadership” in the May 2002 issue of *Educational Leadership*, “The days of the principal as the lone instructional leader are over. We no longer believe that one administrator can serve as the instructional leader for an entire school without the substantial participation of other educators.”

³ For a module on implementing instructional leadership teams, see <https://www.aspeninstitute.org/publications/implementing-common-core-role-instructional-leadership-teamsilts-looking-student-work/>.

Policies explicitly recognize and reward the behaviors of lead learners. This can include recognizing practitioners who demonstrate a learner’s stance on a daily basis; updating recruitment, application, and evaluation materials to signal that ongoing learning is valued; and augmenting compensation to support differentiated roles for teachers that contribute to experimentation, new practices, and a healthy culture for collaboration and learning. Practices such as inquiry, frequent, informal, non-evaluative feedback during practice sessions and classroom instruction are used to support educators’ continued learning and improvement.

- 2. The social conditions in schools support professional learning.** Observations of teacher practice and student learning by peers and others who support instructional improvement are commonplace. Collaborative planning and reflection on the impact of instruction on student learning are part of the normal routine. Educators are supported to talk frankly about teaching and student learning by focusing on student work and teaching practice rather than on the teacher. Colleagues engage in a collaborative inquiry process that uses students’ learning and teachers’ concerns as the starting point and digs deep beneath the surface to understand the root causes of learning challenges that different groups of students are having and plan how to address those issues in their instruction. All of this requires educators to work collaboratively in a way that is effective, efficient, supportive, and mutually accountable.

The Curriculum and Assessments Teachers Use with Students Are Front and Center in Professional Learning to Ensure Its Relevance

Effective professional learning is relevant and seated in the daily work of teachers. Putting the curriculum, instructional materials and related assessments, including common assignments and performance tasks, that teachers use with students front and center in professional learning ensures the learning is relevant and applied.^{xiii} Both curriculum and assessment should be used to identify and address the knowledge and skills that teachers need to effectively meet their students’ learning needs.

- 3. High-quality, standards-aligned instructional materials are at the heart of meaningful professional learning.** These materials serve as both a focus and a catalyst for professional learning. Learning how to teach high-quality instructional materials creates an imperative to build content knowledge, pedagogical content knowledge, and the ability to support and assess students’ social, emotional, and academic development. It is also highly relevant, situating professional learning in the context of teachers’ daily work and in the results their students are achieving also ensures the adult learning is relevant.^{xiv}

Teachers and schools often exercise broad discretion in the choice of instructional materials, so it’s important to ensure the availability of high-quality and culturally relevant materials and to incentivize and otherwise encourage good choices. Much of what’s currently used in classrooms does not meet criteria for quality or standards alignment,^{xv} so processes for the review, selection, procurement, and use of materials must be revisited to ensure that the quality of instructional materials (and their relevance and motivational power for students) can sustain deep professional learning, while maintaining teacher choice and agency.

The most powerful professional learning is seated in instructional materials, and supports teachers to deeply understand the materials and how to adapt them to address their students’ specific needs.

Adaptation of high-quality instructional materials is an integral part of teacher practice. The rigid

delivery of curriculum materials and resources without adaptation undermines the ability of teachers to personalize learning by responding authentically and genuinely to students' assets, needs, and interests. Professional learning should be designed to ensure teachers have the skills to be critical consumers of materials and to make changes purposefully and with an understanding of the underlying instructional goal and level of rigor reflected in the original materials.^{xvi} This is critical to advancing equity because adaptations without adequate understanding of the standards and goals can lead to lower expectations and rigor and deprive students of rich learning experiences.⁴

- 4. Evidence of student learning is an indispensable resource that grounds professional learning** in its ultimate purpose: improving the social, emotional, and academic development of students. A system for collecting and analyzing evidence of student learning through student work^{xvii} – as well as through more formal interim and summative assessments – is essential. These elements must work together to reinforce learning progressions and performance expectations.

System leaders are knowledgeable about the types of student artifacts that are useful for informing professional learning and collaboration among educators versus evidence for other purposes. Formative assessment data produced in the course of instruction (during class time or as homework) is essential for supporting deep, meaningful professional learning.^{xviii} Authentic student work that is the product of rich tasks provides a context for teachers and leaders to reflect on the results of prior planning and instructional decisions, to assess current student learning needs, and to adapt instruction and support moving forward. Off-the-shelf, nationally normed assessments might have relatively higher ratings for reliability, and these attributes may be desirable for performance management and continuous improvement of supports at the system level. But there is a trade-off in the validity and usefulness of this information for reflecting on the quality of instruction and determining how to adapt learning experiences for students in response to the data.

System leaders need to allocate responsibility for designing and interpreting formative assessments at the school level, and they must ensure adequate training and support for the relevant actors based on their answers to the following questions:

- What assessment expertise do teachers need to possess to accomplish their work?
- What is the role of common assignments that signal the level of rigor and expectations across classrooms in a comprehensive assessment approach?
- What responsibilities should be assigned to leaders in the school, and what training and support do they require?
- What responsibilities for formative assessment of student learning should be allocated at the system level?

High-Quality Professional Learning Is Grounded in Research About the Characteristics that Make It Effective

At the core of a professional learning system is the professional learning itself. Given that educators and the sector more broadly historically have found professional learning to be largely ineffective, drawing on the

⁴ For examples of systems that have grounded professional learning in high-quality instructional materials and are helping teachers learn to adapt it without compromising expectations or rigor, see “Practice What You Teach: Connecting Curriculum and Professional Learning in Schools,” published by the Aspen Institute in April 2017: <https://www.aspeninstitute.org/publications/practice-teach-connecting-curriculum-professional-learning-schools/>

research about the characteristics of effective professional learning is essential to ensuring its fundamental integrity and efficacy.

5. Professional learning deliberately and explicitly models the rigorous, engaging, and relevant learning activities expected of students by:

- a. Putting rigorous content and tasks on the table;
- b. Actively engaging teachers in solving a problem or addressing a dilemma that is important to them and their work;
- c. Requiring the learner to do the primary intellectual lift through context-appropriate, relevant learning activities.

6. Routines for repeated practice, close analysis of practice, and feedback on practice are built into professional learning and into school schedules. For example, when teachers plan and unpack a new lesson, the first attempt at teaching it is not always (or usually) with students in the regular course of instruction. It might be with other teachers or in lower-stakes simulations. (Virtual reality eventually may have promising applications in this realm but is currently out of reach for most schools and teachers.^{xix})

Putting sustainable systems in place to support these professional learning practices requires the focus and time of a school leadership team. A professional learning system underscores the important roles of teacher leaders and principals in ensuring the integrity and efficacy of the work.

Leadership at Both the School and Teacher Level Is Essential to Create the Conditions Under Which Professional Learning Takes Root and Flourishes

Leadership is essential to create the conditions in schools under which professional learning takes root and flourishes. This has implications for the principalship, and it requires a broader conception of a leadership team that includes educators with deep pedagogical, content and pedagogical content knowledge expertise, as well as an understanding of the interconnectedness of social, emotional, and academic development. This kind of shared leadership requires careful design and coordination on the part of the school leader and can be a catalyst for accelerated improvement in professional and student learning.

7. School leaders create the conditions under which professional learning happens. They spend their time focused on overall leadership of the system of adult learning within the school, establishing a healthy culture for adult learning, and building a system of distributed leadership that ensures teachers have expert support and are held accountable.^{xx} This is a shift from prioritizing time in individual classrooms and evaluating and coaching individual teachers.

This leadership includes:

- Identifying and developing teachers with deep content knowledge and pedagogical content knowledge who can serve as teacher leaders and facilitate the learning of other teachers. These teacher leaders must share responsibility for planning, coordinating, and continuously improving the school's professional learning culture and the infrastructure that supports it.
- Ensuring dedicated time in the school day, the weekly schedule, and the annual calendar to foster collaboration with peers, with as much role-alike grouping as possible (e.g., same content, same grade) with the explicit purpose of building expertise. Clear protocols to

ensure this time is well spent are essential. Schools and systems at the vanguard are designing weekly cycles that enable teachers to explore the learning objectives underpinning instruction, collaboratively plan with their peers, practice, and get feedback.^{xxi}

- Anticipating and addressing the change management aspects of professional learning by strategically sequencing changes, enlisting early adopters and influential champions, assessing incentives and barriers, and consistently communicating *why* desired changes are needed as a means to motivate the desired changes in practice.
- Tracking a rich set of leading indicators and balanced measures that keep an eye on student outcomes, as well as organizational health and a school culture that prioritizes relationships, trust, and learning.⁵

- 8. Deep content and pedagogical content knowledge exist in all schools** in order to sustain professional learning in the context of teachers' daily work. This requires that every school have teachers (and administrators) with deep expertise and experience who have significant responsibility for facilitating adult learning and for ensuring that the supporting conditions for professional learning are in place.⁶

Teacher leadership is cultivated first and foremost on the basis of teachers' content knowledge, pedagogical expertise, and ability to accelerate students' social, emotional, and academic development. Selection, training, support, and accountability for these roles focuses on: (1) cultivating teacher leaders as experts in content and instruction; (2) facilitating adult learning and continuous improvement; and (3) distributing leadership for instructional and school improvement to them.

School structures are organized to give expert teachers time to support colleagues in their learning. The structures also ensure these teacher leaders have a voice in school decisions that impact professional learning and teachers' application of their learning in classrooms. Ensuring the equitable development and distribution of this capacity across schools is an essential system responsibility so that all teachers have access to expert support from which all students can benefit.⁷

Central Office Departments and External Partners Align Their Work in Service and Support of Schools as the Place Where Teachers' Most Important Professional Learning Occurs

We start with the principle that schools are where the most important professional learning takes place and that those closest to the ground are best able to identify their specific professional learning needs. This requires a fundamental reorientation of the roles and responsibilities of central office departments and the external partners who provide professional learning supports. Rather than assuming that most decisions and

⁵ For further information on how school leaders can create rich professional learning opportunities and build an instructional leadership team, see "Implementation of the Common Core State Standards: A Transition Guide for School-level Leaders," published by the Aspen Institute in September 2013:

<https://www.aspeninstitute.org/publications/implementation-common-core-state-standards/>

⁶ District of Columbia Public Schools has implemented a professional learning system being led by content experts at each school site: <https://dcps.dc.gov/page/leap-teacher-professional-development>

⁷ For a report on teacher leadership and creating a career path that recognizes veteran teachers' contribution and expertise, see "Leading from the Front of the Classroom: A Roadmap for Teacher Leadership that Works," published by the Aspen Institute in October 2014: <https://www.aspeninstitute.org/blog-posts/leading-front-classroom/>

supports are best made centrally, a key task is to work with schools to clarify which roles and responsibilities are best performed at each level of the system—and then to focus on this high-leverage work.

This does not mean that schools must do all the work to ensure high-quality professional learning occurs. Central office still plays a vital role in providing resources, tools, and guidance. Moreover, the system must ensure that all elements of instructional improvement—from standards, to curricula, to assessments, to professional learning—are aligned and reinforce each other in a coherent fashion. The central office also has a fundamental role to play in ensuring equitable access to learning opportunities for both adults and students in the system. By looking across the district, the central office can determine themes and trends that help inform which decisions and supports are best provided centrally and which are best done at the school site.

Finally, external professional learning and human capital partners must similarly align their supports. Rather than imposing their own frame and approach, external professional learning and human capital partners should design their supports in response to the system’s professional learning strategy (and the curriculum/instructional materials being used) to ensure alignment and coherence.

- 9. Central office teaching and learning departments are held accountable for understanding and responding to educators’ professional learning needs and supporting the work of professional learning in schools.** This is a profound shift from the practice in many school systems of the central office teaching and learning team deciding on the professional learning priorities and then developing and delivering training that school leaders and teachers often experience as detached from their daily experience. This shift requires a responsive and supportive orientation, with the central office asking, observing, listening, and responding to teachers and school leaders with tools and resources that support school-based professional learning, including access to culturally relevant, high-quality curriculum and instructional materials reflective of diverse student backgrounds. Systems also eliminate unnecessary requirements placed on schools that have the potential to distract them from focusing on professional learning.

Systems explicitly articulate a division of labor between the central office and schools regarding roles and responsibilities for professional learning based on an articulated theory of change about the content, delivery, and infrastructure of professional learning that leads to improved teaching and increased student learning.^{xxiii} Commensurate shifts in resource allocation and performance management accompany this division of labor. Systems track this work using data and other evidence to ensure the division of labor is effective and to inform adaptations as needed.

Where there are concerns about the capacity of principals and school faculty to lead the work, the focus must be on building the capacity of school leaders or changing leadership. There may be instances where there is a need for more corrective behavior from central – but it is important this is treated as a short-term and not a long-term solution. We will not bring about the change we need in schools until we solve the leadership capacity problems we have for strong principals and teacher leaders. This work is essential to addressing issues of inequity in student access to excellent instruction.

- 10. The whole human capital and performance management system reflects the priority placed on professional learning.** Recruitment and selection, onboarding and induction, performance management, compensation and tenure decisions, ongoing support and professional advancement all work together to reinforce the expectation that educators are always learning.

Performance management and advancement are two of the most powerful human capital mechanisms leveraged to prioritize professional learning. The criteria used in performance management recognize and value teachers' and school leaders' active participation in and contributions to collaborative adult learning. Evaluation criteria explicitly value and call out educators' ability to be self-reflective of their own performance and to accept and apply feedback.

Principals and other evaluators of teachers are assessed on their ability to help teachers improve and the assistance they provide them. Their impact is measured through teachers' improved practice and growth in outcomes, including student engagement. Additionally, principal and school supervision and supports focus on understanding and improving the school conditions and processes for adult learning. Accountability measures reinforce the conditions for this work and the evidence regarding whether it is being done well (i.e., a school isn't considered high-performing unless it had a productive learning culture among adults and students). This has implications for the selection and support of principals and principal supervisors to ensure they have the required knowledge and skills.^{xxiii}

Deep expertise in the content of professional learning is also required for advancement.

- For teachers, this means content knowledge, pedagogical content knowledge, social and emotional development, cultural competency, and assessment literacy. This content knowledge is complemented by an orientation and ability to continuously improve through inquiry and collaboration with peers.
- Teacher leaders need these skills and orientation *as well as* expertise in facilitating adult learning among peers and providing individualized coaching and feedback.
- For principals, this means the ability to create the school culture and conditions that supports this vision of professional learning and to provide feedback and support that results in improved instruction and students' social, emotional, and academic development.

Conclusion

Learning is the reason schools exist. It must be the work of school leaders and teachers just as much as it is the work of students. Creating the conditions for building educator expertise demands a systems approach to professional learning. Such an approach allows system leaders to recognize they must coordinate multiple changes – in governance, data and accountability, human capital policy, etc. – to ultimately achieve the improvement we want to see in all schools and all students' learning.

Endnotes

ⁱ For more on increasing teacher capacity, see Linda Darling-Hammond, Ruth Chung-Wei, Althea Andree, Nikole Richardson and Stelios Orphanos, "Professional Learning in the Learning Profession: A Status Report on Teacher Development in the U.S. and Abroad," National Staff Development Council, 2009, <https://learningforward.org/docs/pdf/nsdcstudy2009.pdf>.

ⁱⁱ For more on organizing schools and systems to support adult learning, see Dylan Wiliam, "Teacher expertise: Why it matters, and how to get more of it." *Ten essays on improving teacher quality*, 2014, <http://www.claimyourcollege.org/wp-content/uploads/2015/01/Dylan-Wiliam.pdf>.

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