# Advocates for Professional Learning Communities: Finding Common Ground in Education Reform

Compiled by Dr. Rick DuFour

What would it take to persuade educators that the most promising path for sustained, substantive improvement in their schools and districts is successful implementation of the PLC process?

## **Experts Who Endorse Professional Learning Communities**

For those who find research persuasive, we submit the following.

"The most successful corporation of the future will be a learning organization" (Senge, 1990, p. 4).

"Every enterprise has to become a learning institution [and] a teaching institution. Organizations that build in continuous learning in jobs will dominate the 21st century" (Drucker, 1992, p. 108).

"Preferred organizations will be learning organizations.... It has been said that people who stop learning stop living. This is also true of organizations" (Handy, 1995, p. 55).

"Only the organizations that have a passion for learning will have an enduring influence" (Covey, Merrill, & Merrill, 1996, p. 149).

"The new problem of change . . . is what would it take to make the educational system a learning organization—expert at dealing with change as a normal part of its work, not just in relation to the latest policy, but as a way of life" (Fullan, 1993, p. 4).

"We have come to realize over the years that the development of a learning community of educators is itself a major cultural change that will spawn many others" (Joyce & Showers, 1995, p. 3).

"If schools want to enhance their organizational capacity to boost student learning, they should work on building a professional community that is

characterized by shared purpose, collaborative activity, and collective responsibility among staff" (Newmann & Wehlage, 1995, p. 37). "[We recommend that] schools be restructured to become genuine learning organizations for both students and teachers: organizations that respect learning, honor teaching, and teach for understanding" (Darling-Hammond, 1996, p. 198).

"We argue, however, that when schools attempt significant reform, efforts to form a schoolwide professional community are critical" (Louis, Kruse, & Raywid, 1996, p. 13).

Karen Seashore Louis and Helen M. Marks (1998) found that when a school is organized into a professional community, the following occurs.

- 1. Teachers set higher expectations for student achievement.
- 2. Students can count on the help of their teachers and peers in achieving ambitious learning goals.
- 3. The quality of classroom pedagogy is considerably higher.
- 4. Achievement levels are significantly higher.

Melanie S. Morrissey (2000) asserts that PLCs offer an infrastructure to create the "supportive cultures and conditions necessary for achieving significant gains in teaching and learning." Additionally, they "provide opportunities for professional staff to look deeply into the teaching and learning process and to learn how to become more effective in their work with students" (Morrissey, 2000).

"The framework of a professional learning community is inextricably linked to the effective integration of standards, assessment, and accountability . . . the leaders of professional learning communities balance the desire for professional autonomy with the fundamental principles and values that drive collaboration and mutual accountability" (Reeves, 2005, pp. 47–48).

"The use of PLCs is the best, least expensive, most professionally rewarding way to improve schools.... Such communities hold out immense, unprecedented hope for schools and the improvement of teaching" (Schmoker, 2005, pp. 137–138).

"Well-implemented professional learning communities are a powerful means of seamlessly blending teaching and professional learning in ways

that produce complex, intelligent behavior in all teachers" (Sparks, 2005, p. 156).

"Strong professional learning communities produce schools that are engines of hope and achievement for students.... There is nothing more important for education in the decades ahead than educating and supporting leaders in the commitments, understandings, and skills necessary to grow such schools where a focus on effort-based ability is the norm" (Saphier, 2005, p. 111).

"Participation in learning communities impacts teaching practice as teachers become more student centered. In addition, teaching culture is improved because the learning communities increase collaboration, a focus on student learning, teacher authority or empowerment, and continuous learning; . . . when teachers participate in a learning community, students benefit as well, as indicated by improved achievement scores over time. . . . The collective results of these studies offer an unequivocal answer to the question about whether the literature supports the assumption that student learning increases when teachers participate in PLCs. The answer is a resounding and encouraging yes" (Vescio, Ross, & Adams, 2008, pp. 87–88).

"The notion of professional learning communities (PLCs) has really taken off around the world. Researchers have focused attention on the topic for some time, especially in North America, but there's a growing realisation that professional learning communities hold considerable promise for supporting implementation of improvement initiatives and the progress of educational reform more generally. ... An effective professional learning community has the capacity to promote and sustain the learning of all professionals in the school community with the collective purpose of enhancing pupil learning" (Stoll et al., 2006, pp. 3–4).

Yvonne Goddard, Roger Goddard, and Megan Tschannen-Moran (2007) studied student achievement in fourth-grade math and reading and found fourth-grade students have higher achievement in both "when they attend schools characterized by higher levels of teacher collaboration for school improvement" (p. 880). Schools with a one standard deviation increase in teacher collaboration showed a .07–.08 standard deviation increase in fourth-grade test scores. This holds true even when they accounted for student characteristics such as race, gender, or socioeconomic status (Goddard, Goddard, & Tschannen-Moran, 2007).

"Findings from many studies suggest that participation in a professional community with one's colleagues is an integral part of professional learning that impacts positively on students" (Timperley, 2008, p. 19).

"Successful systems are creating more opportunities and spaces for teachers to work together in sharing practices and research, developing lesson plans, and building consensus on what constitutes good teaching practice. . . . The expansion of Professional Learning Communities (PLCs) is indicative of the increased emphasis on teacher collaboration as the means of professional development. Through effective PLCs, teachers work together to:

- Research, try, and share best practices
- Analyse and constantly aim for high, internationally benchmarked standards
- Analyse student data and plan instruction
- Map and articulate curriculum
- Observe and coach each other

"PLCs are an indication of a broader trend toward professional development that is increasingly collaborative, data-driven, and peer-facilitated, all with a focus on classroom practice" (Barber & Mourshed, 2009, pp. 30, 32).

"In general, a school-based professional community entails new work arrangements for faculty that (1) make teachers' classroom work public for examination by colleagues and external consultants; (2) institute processes of critical dialogue about classroom practices (for example, what is and is not happening in our classrooms? How do we know that something is actually working? Where is the evidence of student learning? Are there other practices that might work better, and how might we figure this out?); and (3) sustain collaboration among teachers that focuses on strengthening the school's instructional guidance system. . . . Strong instructional leaders promote the growth of a professional community around a shared system of teaching and learning and also stay the course, guided by a coherent, strategic plan that aims to advance the entire enterprise over time" (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010, pp. 56, 133).

"Here we emphasize the importance of professional community, largely because accumulating evidence shows that it is related to improved instruction, student achievement, and one of our leadership variables (shared

leadership). . . . Professional community amounts to more than just support; it also includes shared values, a common focus on student learning, collaboration in the development of curriculum and instruction, and the purposeful sharing of practices .... Professional community is closely associated with organizational learning, and the term 'professional learning communities' has become a common shorthand expression among practitioners. Thus, the presence of a professional community appears to foster collective learning of new practices—where there is principal leadership'' (Louis, Leithwood, Wahlstrom, & Anderson, 2010, p. 42).

"It is no accident that the standards for professional learning begin with the standard on learning communities. While many forms of professional learning may lead to improved knowledge and skills for adults, only the learning community offers a structure, process, and product that lead to systematic continuous improvement for both educators and students" (Hirsh, 2012, p. 64).

Douglas Fisher, Nancy Frey, and Ian Pumpian (2012) point out that although there are certainly anecdotes that PLCs have failed to deliver promised outcomes, a closer examination of what occurred invariably reveals that the school or district strayed from the three guiding principles of PLCs: 1) focus on student learning, 2) work collaboratively and take collective responsibility for student learning, and 3) create a results orientation that uses evidence to make decisions.

According to Robert J. Marzano (2013), when the PLC process is used to its full potential it can help create a school environment that is safe, orderly, collaborative, and learner focused. He maintains that "the PLC process can change the basic dynamic of leadership within a school, allowing school leaders to have a more efficient and direct impact upon what occurs in classrooms" (Marzano, 2013, p. 19).

"One of the most often mentioned structures for effectively using professional learning time is sometimes referred to as a 'professional learning community,' or PLC. Frequently organized to include teachers within a subject or grade, a PLC can be used to strategically focus on selected aspects of teaching and learning that will allow teachers to improve their practice and increase student learning" (Farbman, Goldberg, & Miller, 2014, p. 10).

One key to successful implementation of the Common Core is the "professional-learning-communities model, in which teachers meet frequently by grade level or content area to collaborate on strategies, set goals, and analyze data" (Schneider, 2015).

## **Organizations That Endorse Professional Learning Communities**

For educators who are not persuaded by research, perhaps the endorsements of professional organizations would make them more amenable to the potential of PLCs. Following are recommendations from some organizations that seek to make teaching more rewarding and satisfying.

In its *Best Practices* series, the National Education Association has published *Professional Community and Professional Development in the Learning-Centered School*. The report concludes:

> Research has steadily converged on the importance of strong teacher learning communities for teacher growth and commitment, suggesting as well their potential contribution to favorable student outcomes. . . . Effective professional development might thus be judged by its capacity for building (and building on) the structures and values, as well as the intellectual and leadership resources, of professional community. (Little, 2006, p. 2)

The National Council of Teachers of English (NCTE) passed a resolution supporting PLCs and has created the Professional Learning Communities at Work<sup>TM</sup> series—topical resource kits to help teachers work as PLCs. An NCTE position paper argued that PLCs make teaching more rewarding and combat the problem of educators leaving the profession:

Effective professional development fosters collegial relationships, creating professional communities where teachers share knowledge and treat each other with respect. Within such communities, teacher inquiry and reflection can flourish, and research shows that teachers who engage in collaborative professional development feel confident and well prepared to meet the demands of teaching. (NCTE, 2006, p. 10)

The National Science Teachers Association issued a position paper in 2006 in which it asserted:

There is broad agreement in the field, and increasingly empirical evidence as well, about what constitutes quality professional development for science educators. Key principles, synthesized by the National Institute for Science Education, include reflecting the research on effective classroom learning and teaching; building content and pedagogical content knowledge and skills and examining practice; using research-based methods that mirror those needed in the classroom; facilitating the development of professional learning communities; supporting teacher leadership; integrating professional development with local and state priorities and systems; and continuously evaluating effectiveness. . . . Professional development should promote collaboration among teachers in the same school, grade, or subject. (National Science Teachers Association, 2006, pp. 1–2)

The National Board of Professional Teaching Standards was formed to advance the quality of teaching and learning by developing professional standards for accomplished teaching. Its position statement includes the following statement: "Proposition 5: Teachers are members of learning communities. NBCTs [National Board Certified Teachers] collaborate with others to improve student learning. . . . They work with other professionals on instructional policy, curriculum development and staff development" (National Board for Professional Teaching Standards, 2007).

The National Council of Supervisors of Mathematics (NCSM; 2008) called upon math leaders to (1) ensure teachers work interdependently as a professional learning community to guarantee continuous improvement and gains in student achievement, (2) create the support and structures necessary to implement a professional learning community, and (3) ensure a systemic implementation of a professional learning community throughout all aspects of the mathematics curriculum, instruction, and assessment at the school, district, or regional level.

The National Commission on Teaching and America's Future insists that quality teaching requires strong professional learning communities. It has presented a summary of the research on professional learning communities which, it contends, must become the building blocks that establish a new foundation for America's schools. Its director wrote: that it is imperative to support schools where teamwork begins with systematic induction of new teachers into a "collaborative learning culture" (Carroll & Doerr, 2010).

With the support of the National Science Foundation, the National Commission for Teaching and America's Future engaged in a joint study of STEM teachers in professional learning communities. The study revealed that there was universal support for PLCs across forty STEM professional organizations and that "STEM teaching is more effective and student achievement increases when teachers join forces to develop strong professional learning communities in their schools" (Fulton & Britton, 2011, p. 4).

In 2012, the NCTM co-published a series of books on using the PLC at Work<sup>™</sup> process for implementing the Common Core State Standards in mathematics (Briars, Asturias, Foster, & Gale, 2012; Kanold, & Larson, 2012; Larson, Fennell, Adams, Dixon, Kobett, & Wray, 2012a, b; Zimmermann, Carter, Kanold, & Toncheff, 2012).

The American Federation of Teachers (AFT) passed a resolution encouraging teachers to reflect on their practice and share what they have learned with colleagues in order to "fundamentally [reshape] school culture, turning the school into a professional learning community, reducing isolation, and opening new leadership opportunities for teachers" (AFT, 2010). Furthermore, its Center for School Improvement Leadership Institute includes a component designed to "identify and examine attributes of effective professional development and professional learning communities" (AFT, 2013).

The National Center for Literacy Education (NCLE) is a "coalition of 30 professional education associations, policy organizations, and foundations united to support schools in elevating literacy learning" (NCLE, 2014, p. 2). It recommends that schools be restructured to provide more time for teacher collaboration because "educators' most powerful professional learning

experiences come from collaborating with their colleagues around how they can best improve their students' literacy learning" (NCLE, 2014, p. 5).

Principal organizations have also urged their members to organize schools into PLCs.

The National Association of Elementary School Principals (NAESP; 2008) has clarified the essential responsibilities of that position in the latest edition of its publication *Leading Learning Communities: Standards for What Principals Should Know and Be Able to Do.* The first book in its jointly published new series, *Essentials for Principals*, was titled *The School Leader's Guide to Professional Learning Communities at Work*<sup>TM</sup> (DuFour & DuFour, 2012).

The National Association of Secondary School Principals (NASSP) calls on high schools to engage in an improvement process that will ensure success for every high school student. In *Breaking Ranks II* (2004), the NASSP urges principals to focus on the development of a professional learning community within each school as a primary improvement strategy. In *Breaking Ranks in the Middle* (2006), the NASSP organizes thirty recommendations for improving middle schools into three general areas, the first of which calls for "collaborative leadership and professional learning communities" (p. 23).

In 2012, the Executive Board of the Association for Middle Level Education endorsed a research report that concluded the PLC process is consistent with the middle school philosophy and urged principals to develop the capacity of staff to function as PLCs. This review of the research stated:

The focus on responsive networks of school individuals, continuous reflection directed at student learning, and ongoing focus on teacher development to meet school and student needs corresponds well with the middle level concept articulated in *This We Believe: Keys to Educating Young Adolescents* (National Middle School Association, 2010). . . . PLCs have a consistently positive impact on student achievement results. . . . Educators can and should take comprehensive knowledge and experience related to developmentally responsive middle level schools and

teachers on the journey toward the professional learning community. (Ruebel, 2011)

The National Policy Board for Educational Administration has replaced what was known as the Interstate School Leaders Licensure Consortium Standards with Professional Standards for Educational Leaders. These standards urge education leaders to promote the success and well-being of every student by supporting professional norms in communities for teachers and other professional staff by:

- Collaboratively developing, implementing, and promoting a shared vision and mission for quality teaching and learning
- Developing the individual and collective capacity of the staff
- Providing for collaborative work
- Nurturing a commitment to shared goals and shared ownership
- Nurturing a culture of shared accountability (Council of Chief State School Officers, 2015)

Organizations created to support school reform endorse the PLC process. Examples include the following.

"We support and encourage the use of professional learning communities (PLCs) as a central element for effective professional development and a comprehensive reform initiative. In our experience, PLCs have the potential to enhance the professional culture within a school district" (Annenberg Institute for School Reform, 2004).

The North Central Association Commission on Accreditation and School Improvement (NCA) called for member schools to operate as PLCs. It wrote:

> Working at complementary levels—the school and classroom—the NCA school improvement and PLC processes reinforce and strengthen one another. They are not mutually exclusive, but rather mutually supportive. If we want to ensure that no child is left behind, we must understand the important relationship between the NCA school improvement process and PLC. . . . The use of PLC at the classroom level has dramatically increased teachers' ability to implement a guaranteed and viable curriculum, monitor student progress with colleagues on school

improvement goals and curriculum objectives, and improve the teaching and learning process. The strong link between school improvement goals and PLC at the classroom level allows all children to be successful. (Colliton, 2005, pp. 1–2)

The American Educational Research Association (2005) has concluded that "the more time teachers spend on professional development, the more significantly they change their practices, and that participating in professional learning communities optimizes the time spent on professional development" (pp. 2, 4).

In Empowering Learners: Guidelines for School Librarians, the American Association of School Librarians (2009) has called on its members to collaborate with members of professional learning communities as both learners and teachers.

The National Center for Educational Achievement (2009) found that teachers and administrators in high-performing, low-SES schools "continually used student data and feedback . . . to evaluate, adjust, and align instruction. Teachers report that student data from formative assessments and state tests help them to identify gaps in instruction, or ways that instruction needs to be changed or tailored to individual student needs" (p. 38). Assessment results are also used to adjust instruction in response to the strengths and weaknesses of entire groups of students (National Center for Educational Achievement, 2009).

Learning Forward (formerly the National Staff Development Council) has established standards for effective professional development. The first standard calls for schools to be organized as PLCs. "Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment" (Learning Forward, 2011).

Both the Center for American Progress and the National Center on Time and Learning have endorsed the PLC process. In a recent study they wrote, "Indeed, it is not surprising that researchers have found that PLC sessions have proven to be a cornerstone of effective teaching and, in

underperforming schools, a catalyst for improvement" (Farbman, Goldberg, & Miller, 2014, p. 10).

## **Studies That Support Professional Learning Communities**

The following are some specific studies on PLC and school improvement that you can reference.

The Center on Organization and Restructuring of Schools conducted a fiveyear study in the early 1990s that included analysis of data from over fifteen hundred elementary, middle, and high schools throughout the United States. The center also conducted field research in forty-four schools in sixteen states. Schools that successfully linked their improvement initiatives with improved student learning had the following characteristics.

- 1. Focus on agreed vision of what students should learn
- 2. Teaching that requires students to think, to develop in-depth understanding, and to apply academic learning to important, realistic problems
- 3. Schools that function as professional learning communities in which teachers:
  - a. Are guided by a clear, commonly held, shared purpose for student learning
  - b. Feel a sense of collective responsibility for student learning
  - c. Collaborate with one another to promote student learning
  - d. Enjoy increased autonomy at the school site (Newmann & Wehlage, 1995)

Another analysis of the data collected by the Center on Organization and Restructuring of Schools agreed that the development of PLCs was critical to improving schools and elaborated on the conditions that led to successful PLCs. Kruse, Louis, and Bryk (1994) argue that in a PLC, teachers are committed to the following.

- 1. Reflective dialogue based on a shared set of norms, beliefs, and values that allow them to critique their individual and collective performance
- 1. De-privatization of practice that requires teachers to share, observe, and discuss each other's methods and philosophies
- 2. Collective focus on student learning fueled by the belief that all students can learn and that staff members have a mutual obligation to make sure students learn

- Collaboration that moves beyond dialogue about students to producing materials that improve instruction, curriculum, and assessment for students
- 4. Shared norms and values that affirm common ground on critical educational issues and a collective focus on student learning

The study also reported these five factors are supported by structural conditions such as time to meet during the school day, teachers organized into collaborative teams that work together interdependently to achieve common goals, open communication within and across teams, and teacher autonomy guided by a shared sense of purpose, priorities, and norms (Kruse et al., 1994). Social resources that support PLCs include commitment to continuous improvement, high levels of trust and respect, sharing of effective teaching practices, supportive leadership, and focused orientation for those new to the school (Kruse et al., 1994).

"The central importance of a professional community—a culture of learning—will be no surprise to those familiar with other educational research" (WestEd, 2000, p. 11).

A review of the international literature on professional learning communities revealed that "developing professional learning communities (PLCs) appears to hold considerable promise for capacity building for sustainable improvement" (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006, p. 1).

The Partnership for 21st Century Skills (P21; 2015) has called for schools to be organized into professional learning communities in order to model and teach the skills students will need. The organization argues that the best environments for teaching 21st century skills are "professional learning communities that enable educators to collaborate, share best practices, and integrate 21st century skills into classroom practice" (P21, 2015).

After studying the impact of interim assessments in targeted Philadelphia schools, Research for Action concluded:

Translating student data into student achievement requires a strong learning community at the school. The instructional leadership and collective responsibility measures imply that school leaders and faculty feel accountable to one another, that they are diligent in

monitoring student progress, and that they are willing to use data as a starting point for inquiry. (Christman et al., 2009)

The National Commission on Teaching and America's Future (2012) and WestEd partnered in a two-year project to analyze nearly two hundred research articles and reports on the impact of professional learning communities on STEM teaching. This report compiles compelling evidence that when teachers team up with their colleagues, they are able to create a culture of success in schools that results in teaching improvements and student learning gains. The report advised policymakers and educators to redesign our education system to support great team teaching, not the heroic efforts of isolated individuals in self-contained classrooms. As it concluded:

Collaboration is the key to a rewarding career that will attract and retain highly skilled professionals, resulting in higher impact teaching and deeper student learning. It's time for educators to harness the power of teamwork found in all other successful 21st century professions. (National Commission on Teaching and America's Future, 2012)

According to Greg Anrig (2013), studies from the University of Chicago Center on School Reform, the National Center for Educational Attainment of schools in five states, and the Century Foundation affirm that the keys to successful low-income school districts include:

A collaborative organizational culture focused on improving student learning is central to making progress, the use of frequent assessments as diagnostic tools to detect and respond to difficulties that teachers are encountering as well as students, and explicit commitments of significant time dedicated to enabling robust internal communication and extra assistance to those who are struggling. (pp. 13–14)

### Anrig (2013) also points out:

In contrast to the traditional institutional design of schools dating back to the nineteenth century—in which each teacher has enormous autonomy, isolated in a classroom and working under a rigid administrative hierarchy—many

of the successful public schools share the traits of modern, high-performance workplaces, fostering cultures built on teamwork and shared sense of mission. (p. 3)

## **Research That Supports the Three Big Ideas of PLCs**

Another approach is to break the PLC concept into the three big ideas we talk about in *Learning by Doing* (DuFour, DuFour, Eaker, & Many, 2010; DuFour, DuFour, Eaker, Many, & Mattos, 2016 [in press])—a focus on learning, a culture of collaboration, and a focus on results—and show the research behind each. For example, the following quotes represent some research on the importance of a collaborative culture.

"The single most important factor for successful school restructuring and the first order of business for those interested in increasing the capacity of their schools is building a collaborative internal environment that fosters cooperative problem solving and conflict resolution" (Eastwood & Louis, 1992, p. 215).

"The ability to collaborate—on both a small and large scale—is becoming one of the core requisites of postmodern society. . . . In short, without collaborative skills and relationships, it is not possible to learn and to continue to learn as much as you need in order to be an agent for social improvement" (Fullan, 1993, pp. 17–18).

"An interdependent work structure strengthens professional community. When teachers work in groups that require coordination, this, by definition, requires collaboration. When groups, rather than individuals, are seen as the main units for implementing curriculum, instruction, and assessment, they facilitate development of shared purpose for student learning and collective responsibility to achieve it" (Newmann & Wehlage, 1995, pp. 37–38).

"The key to ensuring that every child has a quality teacher is finding a way for school systems to organize the work of qualified teachers so they can collaborate with their colleagues in developing strong learning communities that will sustain them as they become more accomplished teachers" (National Commission on Teaching and America's Future, 2003, p. 7).

"Collaboration and the ability to engage in collaborative action are becoming increasingly important to the survival of the public schools.

Indeed, without the ability to collaborate with others, the prospect of truly repositioning schools in the constellation of community forces is not likely" (Schlechty, 2005, p. 22).

"It is time to end the practice of solo teaching in isolated classrooms. Teacher induction and professional development in 21st century schools must move beyond honing one's craft and personal repertoire of skills. Today's teachers must transform their personal knowledge into a collectively built, widely shared, and cohesive professional knowledge base" (Fulton, Yoon, & Lee, 2005, p. 4).

"A precondition for doing anything to strengthen our practice and improve a school is the existence of a collegial culture in which professionals talk about practice, share their craft knowledge, and observe and root for the success of one another. Without these in place, no meaningful improvement—no staff or curriculum development, no teacher leadership, no student appraisal, no team teaching, no parent involvement, and no sustained change—is possible" (Barth, 2006, p. 13).

"Educators work alone more than any other professionals in modern America. Most professions have come to recognize the value of teamwork as a better way to understand and solve the 'problems of practice.' . . . Fortunately, there appears to be new interest in forms of collaboration among educators. . . . Professional learning communities are increasingly popular" (Wagner, 2007).

High-performing, high-poverty schools build deep teacher collaboration that focuses on student learning into the culture of the school. Structures and systems are set up to ensure teachers work together rather than in isolation, and the point of their collaboration is to improve instruction and ensure all students learn (Chenoweth, 2009).

"The common themes in what makes various strategies successful are . . . teachers talking with other teachers about teaching and planning, deliberate attention to learning intentions and success criteria, and a constant effort to ensure teachers are seeking feedback information as to the success of their teaching on their students" (Hattie, 2009, p. 36).

"In the systems we encountered that had established strong routines of collaborative practice, system leaders bore witness to three changes that collaborative practice had brought about. First, it had moved their schools from a situation in which teachers were like private emperors, to one where teaching practice is made public and the entire teaching profession shares responsibility for student learning. Second, they report a cultural shift, moving from an emphasis on what teachers teach to one on what students learn. . . . Third, they report collaborative practice develops a normative model of 'good instruction'—the pedagogy of the user interface—and makes teachers the custodians of that model. This is the characteristic of a true profession" (Mourshed, Chijioke, & Barber, 2010, pp. 79, 81).

"The nation has a pressing need, and an unprecedented opportunity to improve school performance by using learning teams to systematically induct new teachers into a collaborative learning culture—teams that embed continuous professional development into the day-to-day fabric of work in schools" (Carroll & Doerr, 2010).

"In modern organizations, people need each other; almost everyone works interdependently. Employees left entirely to their own devices, without any assistance or support from someone else, accomplish very little" (Amabile & Kramer, 2011, p. 105).

"To meet the needs of today's learners, the tradition of artisan teaching in solo-practice classrooms will have to give way to a school culture in which teachers continuously develop their content knowledge and pedagogical skills through collaborative practice that is embedded in the daily fabric of their work. Teacher collaboration supports student learning, and the good news is that teachers who work in strong learning communities are more satisfied with their careers and are more likely to remain in teaching long enough to become accomplished educators" (Fulton & Britton, 2011).

"Nowadays, professional cultures are more and more collaborative. . . . They are places where teachers share collective responsibility for all their students. . . . They are places where teachers constantly inquire into learning and problems together, drawing on their different experiences of particular children or strategies, and on what the evidence they can collect is telling them. . . . The days when individual teachers could just do anything they liked, good or bad, right or wrong, are numbered, and in many places are

now gone altogether. Teaching is a profession with shared purposes, collective responsibility, and mutual learning. Teaching is no longer a job where you can hog the children all to yourself. If that's what you still believe, then it's time to leave for another profession, because unless you share the responsibility and emotional rewards with your colleagues, you're no longer really a professional at all" (Hargreaves & Fullan, 2012, pp. 143–44).

"In the most innovative companies, teaming is the culture. . . . Today's leaders must therefore build a culture where teaming is expected and begins to feel natural" (Edmonson, 2013).

"The ability to develop and support high-functioning teams schoolwide is essential to ensuring improved and inspired learning for all learners—adults or children" (D'Auria, 2015, p. 54).

"When teachers work together on collaborative teams, they improve their practice in two important ways. First, they sharpen their pedagogy by sharing specific instructional strategies for teaching more effectively. Second, they deepen their content knowledge by identifying the specific standards students must master. In other words, when teachers work together, they become better teachers" (Many & Sparks-Many, 2015, p. 83).

"We must stop allowing teachers to work alone, behind closed doors and in isolation in the staffrooms and instead shift to a professional ethic that emphasizes collaboration. We need communities within and across schools that work collaboratively to diagnose what teachers need to do, plan programmes and teaching interventions and evaluate the success of the interventions" (Hattie, 2015, p. 23).

Professional organizations for educators have endorsed the premise that educators should work together collaboratively. Consider the conclusions of the following organizations.

"[High-achieving schools] build a highly collaborative school environment where working together to solve problems and to learn from each other become cultural norms" (WestEd, 2000, p. 12).

"Isolation is the enemy of learning. Principals who support the learning of adults in their school organize teachers' schedules to provide opportunities for teachers to work, plan, and think together. For instance, teams of teachers who share responsibility for the learning of all students meet regularly to plan lessons, critique student work and the assignments that led to it, and solve common instructional or classroom management problems" (National Association of Elementary School Principals, 2001, p. 45).

"The key to ensuring that every child has a quality teacher is finding a way for school systems to organize the work of qualified teachers so they can collaborate with their colleagues in developing strong learning communities that will sustain them as they become more accomplished teachers" (National Commission on Teaching and America's Future, 2003, p 7).

"A high school will regard itself as a community in which members of the staff collaborate to develop and implement the school's learning goals. Teachers will provide the leadership essential to the success of reform, collaborating with others in the educational community to redefine the role of the teacher and to identify sources of support for that redefined role" (National Association of Secondary School Principals, 2004, p. 4).

"High-performing schools tend to promote collaborative cultures, support professional communities and exchanges among all staff, and cultivate strong ties among the school, parents, and community. . . . Teachers and staff collaborate to remove barriers to student learning. . . . Teachers communicate regularly with each other about effective teaching and learning strategies" (National Education Association, 2005).

"Some of the most important forms of professional learning and problem solving occur in group settings within schools and school districts. Organized groups provide the social interaction that often deepens learning and the interpersonal support and synergy necessary for creatively solving the complex problems of teaching and learning. And because many of the recommendations contained in these standards advocate for increased teamwork among teachers and administrators in designing lessons, critiquing student work, and analyzing various types of data, among other tasks, it is imperative that professional learning be directed at improving the quality of collaborative work" (National Staff Development Council, 2001).

"[Accomplished teachers] collaborate with others to improve student learning.... They work with other professionals on instructional policy, curriculum development and staff development" (National Board of Professional Teaching Standards, 2007).

"A school does not become a great place to learn until those teachers have the leadership and support they need to create a collaborative culture.... Teachers working together are more effective than even the best of them can be working alone" (National Commission on Teaching and America's Future, 2012).

Many experts have endorsed the third big idea of a professional learning community—a focus on results. Evidence-based decision making is key to producing a results orientation in education. Consider the following statements.

"Concentrating on results does not negate the importance of process. On the contrary, the two are interdependent: results tell us which processes are most effective and to what extent and whether processes need reexamining and adjusting. Processes exist for results—and results should inform processes" (Schmoker, 1999, p. 4).

"What does it take to close the achievement gaps? Our findings suggest that it comes down to how schools use data. Teachers in gap-closing schools more frequently use data to understand the skill gaps of low-achieving students.... When data pinpoint a weakness in students' academic skills, gap-closing schools are more likely to focus in on that area, making tough choices to ensure that students are immersed in what they most need" (Symonds, 2004, p. 16).

School systems must create a culture that places value on managing by results, rather than on managing by programs. "It is essential that leaders work to establish a culture where results are carefully assessed and actions are taken based on these assessments" (Schlechty, 2005, p. 10).

"An astonishing number of educational leaders make critical decisions about curriculum, instruction, assessment, and placement on the basis of information that is inadequate, misunderstood, misrepresented, or simply absent. Even when information is abundant and clear, I have witnessed

leaders who are sincere and decent people stare directly at the information available to them, and then blithely ignore it. . . . Strategic leaders are worthy of the name because of their consistent linking of evidence to decision making. Thus they respond to these challenges not by scoring rhetorical points, but by consistently elevating evidence over assertion" (Reeves, 2002, pp. 95, 162).

"Our investigations suggest it is critical to define and publish a protocol that articulates specific inquiry functions: jointly and recursively identifying appropriate and worthwhile goals for student learning; finding or developing appropriate means to assess student progress toward those goals; bringing to the table the expertise of colleagues and others who can assist in accomplishing these goals; planning, preparing, and delivering lessons; using evidence from the classroom to evaluate instruction; and, finally, reflecting on the process to determine next steps" (Gallimore, Ermeling, Saunders, & Goldernberg, 2009, pp. 548–549).

"There is no recipe, no professional development set of worksheets, no new teaching method, and no band-aid remedy. It is a way of thinking: 'My role, as teacher, is to evaluate the effect I have on my students.' . . . This requires that teachers gather defensible and dependable evidence from many sources, and hold collaborative discussions with colleagues and students about this evidence, thus making the effect of their teaching visible to themselves and to others" (Hattie, 2011, p. 19).

"A common goal that is created collaboratively by those who will be responsible for achieving it brings direction, energy, and accountability to learning. This principle is widely known and accepted as part of the adult PLC movement" (Conzemius & Morganti-Fisher, 2012, p. 72).

Schools that have the greatest impact on student learning establish clear and measurable goals focused on improving overall student achievement at the school level. "Data are analyzed, interpreted, and used to regularly monitor progress toward school achievement goals" (Marzano, 2013, p. 37).

"When the school is organized to focus on a small number of shared goals, and when professional learning is targeted to those goals and is a collective enterprise, the evidence is overwhelming that teachers can do dramatically better by way of student achievement" (Fullan, 2014, p. 79).

"Continuous improvement requires a process by which educators develop habits and routines for assessing their effect; they must learn from what is working, in what way and for whom, and then adjust their practice accordingly" (D'Auria, 2015, p. 54).

In fact, evidence-based decisions are so important to establishing a results orientation in any organization that many experts outside education have advocated for using data in this manner.

"Unless you can subject your decision-making to a ruthless and continuous judgment by results, all your zigs and zags will only be random lunges in the dark, sooner or later bound to land you on the rocks" (Champy, 1995, p. 120).

"Companies introduce these programs under the false assumption that if they carry out enough of the 'right' improvement activities, actual performance improvements will inevitably materialize. At the heart of these programs, which we call 'activity centered,' is a fundamentally flawed logic that confuses ends with means, processes with outcomes. . . . Payoffs from the infusion of activities will be meager at best. And there is in fact an alternative: results-driven improvement processes that focus on achieving specific, measurable operational improvements within a few months" (Schaffer & Thomson, 1992, p. 191).

"Ducking the facts about performance for fear of being judged, criticized, humiliated, and punished characterizes losing streaks, not winning streaks. In a losing streak, facts are used for blame, not improvement; they are turned into weapons to persecute, not tools to find solutions. . . . In winning streaks, players get and use abundant feedback about their performance. . . . Leaders can . . . ensure that measurements ultimately empower rather than punish people" (Kanter, 2004, pp. 208–209).

"Goal setting is the single most powerful motivational tool in a leader's toolkit. Why? Because goal setting operates in ways that provide purpose, challenge, and meaning. Goals are the guideposts along the road that make a compelling vision come alive" (Blanchard, 2010, p. 130).

Leaders should "set group performance goals that require people to collaborate. . . . Having common as well as individual goals also allows you to motivate team as well as individual performance" (Katzenbach & Khan, 2010, p. 117).

"One of the greatest challenges to team success is the inattention to results. . . . But there is no getting around the fact that the only measure of a great team—or a great organization—is whether it accomplishes what it sets out to accomplish. . . . When it comes to how a cohesive team measures its performance, one criterion sets it apart from noncohesive ones: its goals are shared across the entire team" (Lencioni, 2012, pp. 65–66).

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