

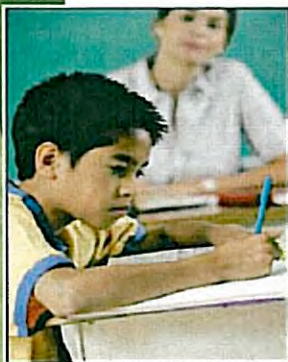


## **Studies of the Impact of Professional Development**

**Barber, M. & Mourshed, M. (2007). *How the world's best-performing school systems come out on top*. London: McKinsey and Company.**

A study of twenty-five of the world's school systems, including ten of the top performers, provided information on the common factor and tools they use to improve student outcomes. The experiences of these top school systems suggests that three things matter most: 1) getting the right people to become teachers; 2) developing them into effective instructors and; 3) ensuring that the system is able to deliver the best possible instruction for every child. These systems demonstrate that these best practices for achieving student success work irrespective of the culture in which they are applied. The authors' analysis demonstrates that substantial improvement in student outcomes is possible in a short period of time and that applying these three best practices universally could have enormous impact in improving failing school systems wherever they may be located.

**Blank, R.K., de las Alas, N. & Smith, C. (2007). *Analysis of the quality of professional development programs for mathematics and science teachers: Findings from a cross-state study*. Washington DC: CCSSO.**



In 2005 the Council of Chief State School Officers (CCSSO) began a study of teacher professional development programs in mathematics and science through a grant from the National Science Foundation. States nominated professional development programs for the study, and to conduct the study, the CCSSO team has worked with state coordinators and local program directors and evaluators. The study was designed to assist education leaders in all states by providing a cross-state analysis of the quality of professional development programs and evaluations using a common rubric developed from recent research on program effectiveness. The CCSSO analysis is

based on a study sample of 25 professional development initiatives across 14 states that are representative of the current leading efforts to improve the teaching of math and science in public schools. The findings from the CCSSO-led study provide a picture of the status and prospects for math and science teacher professional development, and particularly initiatives supported through federal and state funding. Characteristics of the more effective programs included: content focus, active learning, collective participation, coherence, sufficient time, and evaluation.





**Calkins, A., Guenther, W., Belfiore, G., & Lash, D. (2007). *The turnaround challenge: Why America's best opportunity to dramatically improve student achievement lies in our worst-performing schools*. Boston, MA: Mass Insight Education & Research Institute.**

The authors study high-performing, high-poverty schools to determine what contributes to student academic success. They report on a number of factors that consistently appear across schools including formative assessment of students, adapting instruction to meet student learning needs, teacher collaboration, and joint problem-solving. In high-performing, high-poverty (HHP) schools teachers frequently (almost daily) work together in a collaborative environment in which they focus on instruction, diagnose student learning needs, and support each other to improve their practices. The authors summarized that turning around schools is largely a "people-focused enterprise," and building conditions and increasing capacity within clusters of schools are keys to success.

**Cohen, D. K. & Hill, H. C. (2001). *Learning policy*. New Haven, CT: Yale University Press.**

Based on a study of a program in California that worked to improve mathematics teaching and learning this book presents the argument that effective state reform depends on coherence in policy and practice, and opportunities for professional learning. The study showed that state policy had a constructive influence on math education in the elementary grades when there was a consistency among the tests and other policy instruments, the curricula, and other instruments of classroom practices, and when teachers had substantial opportunities to learn the practices proposed by the policy.



**Correnti, R. (2007 December). An empirical investigation of professional development effects on literacy instruction using daily logs. *Educational Evaluation and Policy Analysis*, 29 (4), 262-295.**

In a stratified covariant analysis involving over 75,000 lessons, nearly 2,000 classrooms, and 112 schools. Correnti found that professional development is an important lever for improving teacher classroom practice. Specifically teachers who received more intense professional development in comprehension strategies provided more comprehension instruction in their classrooms, 10% more. A similar finding occurred in writing. Teachers receiving intensive professional development in writing provided 13% more writing instruction to their students and engaged students in writing 12% more text than other teachers.





**Desimone, L., Porter, A., Garet, M., Yoon, K. & Birman, B. (2002) Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Education Evaluation and Policy Analysis*, 24(2), 81-112.**



Emerging research on the particular characteristics of high-quality professional development includes:

- Focus on content and how students learn;
- In-depth, active learning opportunities
- Links to high standards;
- Opportunities for teachers to engage in leadership roles;
- Extended duration;
- Collective participation of groups of teachers from the same school, grade, or department.

**Garet, M., Porter, A., Desimone, L., Birman, B., Yoon, K. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4).**

Research on teacher learning shows that fruitful opportunities to learn new teaching methods share several core features: (a) ongoing (measured in years) collaboration of teachers for purposes of planning with (b) the explicit goal of improving students' achievement of clear learning goals, (c) anchored by attention to students' thinking, the curriculum, and pedagogy, with (d) access to alternative ideas and methods and opportunities to observe these in action and to reflect on the reasons for their effectiveness.

**Hord, S. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. Austin, TX: Southwest Educational Development Laboratory, 18-19.**

Shirley Hord summarizes the research, articulating the requirements for effective professional learning communities: (1) the collegial and facilitative participation of the principal who shares leadership, power, and authority through inviting staff input in decision making; (2) a shared vision that is developed from the staff's unswerving commitment to students' learning and that is consistently articulated and referenced for the staff's work; (3) collective learning among staff and application of the learning to solutions that address students' needs; (4) the visitation and review of each teacher's classroom behavior by peers as a feedback and assistance activity to support teachers; (5) physical conditions and human capacities that support such an operation.





**Joyce, B., & Calhoun, E. (1996). *Learning experiences in school renewal: An exploration of five successful programs*. Eugene, OR: ERIC Clearinghouse on Educational Management.**

The authors present five case studies of programs used to build improved learning communities. Each of the five programs presented focuses on unique components of school renewal. Technical and social aspects of school renewal are examined, and the goal of building a learning community for the whole school remains a central theme throughout. The programs include the use of staff development as a tool for school improvement, the effective use of governance structures, the use of an initiative to create a culture of readers and writers, the use of staff development to increase the capacity of inner city schools, and the use of action research as a tool for school improvement.

**Killion, J. (1999). *What works in the middle: Results-based staff development*. Oxford, OH: National Staff Development Council.**



As project director, Results-Based Staff Development for the Middle Grades, Joellen Killion discusses processes and resources for selecting, designing, and evaluating staff development to improve student achievement. The guide describes 26 successful staff development programs in language arts, mathematics, science, social studies, and interdisciplinary programs that were studied and evaluated to ascertain their impact on student learning. It offers guidelines for selecting and/or designing initiatives to improve student performance.

**Little, J. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal*, 19(3), 325-340.**

Interviews with 105 teachers and 14 administrators, supplemented by observation, provide data for a focused ethnography of the school as a workplace, specifically, of organizational characteristics conducive to continued "learning on the job."

**Little, J. W. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teacher College Record*, 91 (4). 509-536.**

Little explores how teachers' relationships with their colleagues impact their success and satisfaction with students and their engagement and commitment to teaching. What Little discovers is that various forms of collaboration exist with varying results. One of the greatest barriers, says Little, to expecting greater collaboration is teachers' anxiety about exposure to criticism, conflict, and uncertainty about their work in collaborative environments. She acknowledges that the rewards of recognition and praise are greater as well, but that





teachers tend to engage only in superficial and sporadic interchange rather than deep collaboration. Those teachers who do experience strong versus weak collaboration tend to realize greater benefits higher satisfaction, engagement in their work, workforce stability, innovation, and collective commitment to instructional policies. Little ends with an appeal for more research and investigation into the effects of teacher collegiality on a school's academic success, teacher performance, and career commitment.

**Little, J.W. (2003). *Inside teacher community: Representations of classroom practice. Teacher College Record, 105 (6), 913-945.***

Little examines, in intensive case studies, teacher knowledge, practice, and learning inside two teacher communities, one of mathematics teachers and one of English teachers in two high schools to understand how classroom teaching practice comes to be known, shared, and developed among teachers in their out-of-classroom interactions. In interviews with teachers, those who had experienced collaborative time with colleagues, engaged in problem solving, elaborated on their concerns and received support, expressed a shared responsibility for student success, focus on instructional innovation, and commitment to close and supportive collaboration with colleagues. Little did note that the resources, especially time, available for out-of-classroom exchanges among teachers differ dramatically. Little also notes that the formation of a learning community can both open up opportunities for teacher learning and limit it based on how strongly habits of interaction and practice limit consideration of innovation, new perspective, and improvement. She notes, "The force of tradition and the lure of innovation seem simultaneously and complexly at play in teachers' everyday talk (pp. 939-940). She concludes that research is converging to suggest that strong professional communities are an important contributors to instructional improvement and school reform.

**Newmann, F., & Wehlage, G. (1997). *Successful school restructuring: A report to the public and educators by the Center on Organization and Restructuring of Schools. Madison, WI: Document Service, Wisconsin Center for Education Research.***

The authors synthesize five years of research with 1,500 elementary, middle, and high schools participating in various restructuring efforts. The report concludes that structural reforms alone do not bring about increased learning. However, organization of human and social resources to support improved teaching and learning is a powerful strategy. The report concludes that student learning can meet high standards if educators and the public give students three kinds of support: (1) teachers who practice authentic pedagogy, (2) schools that build organizational capacity by strengthening professional community, and (3) external agencies and parents that support schools to achieve high quality student learning.





**Penuel, W., Fishman, B., Yamaguchi, R., & Gallagher, L. (2007 December). What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Research Journal*, 44(4) 921-958.**

This study investigates the effects of different aspects of professional development in an implementation of an inquiry science program among 454 teachers and 28 different professional development providers. The researchers examined the impact on teacher knowledge and their ability to implement the science program. The findings are consistent with earlier studies about effective professional development. They point to teachers' perception of the coherence of their professional development experiences, time for teacher planning to incorporate their new learning, and provision of technical support. When present, these factors result in increased program implementation.

**Snow-Renner, R. & Lauer, P. (2005). *Professional development analysis*. Denver, CO: Mid-Content Research for Education and Learning.**

MCREl's previous synthesis of research on standards-based education suggested that implementation of standards-based curriculum, standards-based instructional guidelines, and standards-based accountability assessments means that teacher learning needs to extend well beyond teachers knowing their content. Teachers, they find, need opportunities for deep content learning and opportunities for learning how to apply reform-oriented strategies, practice those strategies in classrooms, and observe their effects on student learning. The synthesis of research studies concludes that standards-based professional development can have a positive effect on teacher classroom practice and student achievement when the professional development is of high quality. Themes that emerged in the research synthesis that describe more effective professional development are 1. of considerable duration; 2. focused on specific content and/or instructional strategies; 3. characterized by collective participation of teachers in teams; 4. coherent; and 5. infused with active learning.

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For additional studies, please contact NSDC's Executive Director Stephanie Hirsh, [stephanie.hirsh@nsdc.org](mailto:stephanie.hirsh@nsdc.org)