Conditions for School Effectiveness Research Guide

April 8, 2010 DRAFT

Summary

The Regional Education Laboratory-Northeast and the Islands (REL-NEI) has provided evidence to support new Massachusetts Conditions for School Effectiveness.

Background

Last spring, as policymakers at the Massachusetts Department of Elementary and Secondary Education (ESE) updated the state's regulations describing essential conditions for "underperforming schools," they turned to the Regional Education Laboratory-Northeast and the Islands (REL-NEI) to provide top-line research on school effectiveness to inform their decision-making.

The Center for District and School Accountability was drafting updated district standards and indicators, and the Accountability and Assistance advisory council requested evidence supporting the district indicators. The Center contacted REL-NEI Massachusetts Liaison Leslie Hergert for assistance, in order to establish an independent body of researchers to verify these indicators. The priority indicators were identified as the Conditions for School Effectiveness because those would be included in the new regulations. Hergert and REL-NEI researcher Katie Buckley spent much of the summer scouring libraries, federal resources, and online databases to find rigorous, up-to-date research on such topics as district leadership, professional development, student assessment, school climate, and effective instructional practices.

As an example, Hergert uncovered two research analyses showing that nearly 50 hours of sustained professional development are necessary to lead to improved student achievement. This information can be incorporated in the upcoming *Promising District Practices Guide.*

Potential Uses

Now that REL-NEI has compiled comprehensive research on school effectiveness, the resources are available to all regional stakeholders. This research can help districts and schools clarify, refine, and justify expectations for staff, programs and structures.

Essential Condition 1: Effective District Systems for School Support and Intervention

Essential Condition 1. Effective district systems for school support and intervention: The district has systems and processes for anticipating and addressing school staffing, instructional, and operational needs in timely, efficient, and effective ways. Using these, it monitors the performance of students and conditions in each school. The district also identifies any persistently low-achieving and/or struggling schools; makes any needed changes in staffing, schedule and/or governance; and supports an ambitious, yet realistic plan for school improvement, including goals, timelines, and benchmarks, with explicit consequences for not meeting benchmarks. The district provides its lowest achieving and struggling schools with additional monitoring and effective support for improvement.

Key Words:

District systems of support, academic achievement, accountability, administrator role, case studies, educational change, educational improvement, federal legislation, instructional improvement, leadership responsibility, meta-analysis, restructuring, sanctions, school districts, superintendents, urban schools.

Organizations:

Center for Applied Research and Educational Improvement at University of Minnesota, Center for Policy and Research in Education, Cross-City Campaign for Urban School Reform, McREL: Mid-continent Research for Education and Learning, Public Education Leadership Project at Harvard University, The Wallace Foundation, West Ed.

Limitations:

This summary includes publicly available documents with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

Essential Condition 1: Effective District Systems for School Support and Intervention

Waters, J. T. & Marzano, R. J. (2006). *School district leadership that works: The effect of superintendent leadership on student achievement.* Denver, CO: McREL, Mid-continent Research for Education and Learning.
http://www.mcrel.org/product/244

Summary/Methods	Findings/Recommendations
The purpose of this meta- analysis of research was to determine the influence that district superintendents have on student achievement and the characteristics of effective superintendents. The meta-analysis examines findings from 27 studies conducted from 1970 to 2005 that used quantitative methods to study the influence of school district leaders on student achievement.	McREL found a positive correlation between effective district leadership and student achievement. Five specific responsibilities of district leaders were associated with a collective focus on teaching and learning goals. Among them were: ▪ District goal-setting is collaborative, involving, for example, school administrators, central office staff, and board members. ▪ Vision remains focused on specific and non-negotiable goals for student achievement and instruction. ▪ The work of the local board of education aligns with and supports the district goals. ▪ The superintendent continually monitors district progress toward achievement and instructional goals. ▪ District leaders make sure that the allocation of resources supports district goals for achievement and instruction. Effective district leaders give school leadership teams autonomy in how they meet district goals while maintaining clear, non-negotiable goals for learning and instruction.

Essential Condition 1: Effective district systems for school support and intervention

Leithwood, K., Louis, K. S., Anderson, S. & Wahlstrom, K. (2004). *How leadership influences student learning*. Minneapolis, MN: Center for Applied Research and Educational Improvement, University of Minnesota. http://www.wallacefoundation.org/WF/KnowledgeCenter/KnowledgeTopics/EducationLeadership/HowLeadershipInfluencesStudentLearning.html

Summary/Methods	Findings/Recommendations
This 87-page report seeks to establish how district and school leadership promotes student learning, summarizes the characteristics of effective leadership, and explains what leaders must do. Existing research on effective leadership practices from the 1970s through 2005 was reviewed. The report shares a broad range of empirical research that shows the effects of state, district, and school initiatives.	The work of superintendents and principals does affect student learning, second only to the quality of curriculum and teaching. The greatest impact tends to be in schools where the learning needs of students are more severe. District and school leaders contribute to student learning indirectly in three major areas: ▪ Setting directions by providing guidance that is clearly understood by all, establishing high expectations, and using data to monitor progress and performance. ▪ Supporting staff with resources and the professional development necessary to succeed. ▪ Managing and redesigning the organization so that the entire range of conditions in the district and schools fully supports teaching and learning.

Essential Condition 1: Effective District Systems for School Support and Intervention

Supovitz, J. A. (2006). *The case for district-based reform: Leading, building, and sustaining school improvement.* Cambridge, MA: Harvard Education Press.

Summary/Methods	Findings/Recommendations
This document, a case study of Duval County, Florida, states its goals as: (1) To provide a portrait of a district throughout the implementation of a reform (not just looking back late in the implementation). (2) To consider "reconfiguration of the district role in supporting system-wide improvement in the 21st century." Beginning in 1999, the author was principal investigator for national evaluation of the America's Choice comprehensive school reform model. In 2000, Duval County requested more intensive evaluation of its standards-based reform efforts. From 2002, the author gathered data more systematically, including fieldwork in a representative sample of ten schools, and continued extensive interviews with district leaders. Also collected were data on the influences of an instructional implementation monitoring system, which the author had helped the district develop.	(1) *Persistence.* Duval County remained consistent and relatively stable in its advocacy and support for standards-based instruction. It dedicated more resources to implementation than to documenting and planning. (2) *Social Aspects of Change.* The professional learning community (PLC) concept in Duval County was vague and not sufficiently focused on problems of practice. Implementation was "generally thin," and it varied across schools. Still, the concept did expand interest and engagement in professional learning. (3) *Embedded Learning Opportunities*. Duval County used its "Standards Implementation Snapshot System" to build learning "into the everyday rhythms and routines of the district" and to enhance understanding of its reforms. Supovitz characterizes 11 core district functions, in which the district acts as a "Local Support Organization," Instructional functions are classified as service (which might involve external partners for functions like curriculum development and training) and orchestration (which includes monitoring/evaluation and facilitating collaboration and support).

Essential Condition 1: Effective District Systems for School Support and Intervention

Mass Insight Education & Research Institute. (2007). *The turnaround challenge: New research, recommendations, and a partnership framework for states and school districts.* Boston, MA: Author.
http://www.massinsight.org/micontent/trnresources.aspx

Summary/Methods	Findings/Recommendations
This analysis aims "to produce recommendations for states and districts seeking a flexible, systematic approach to swift and significant transformation in schools (particularly high schools) deemed chronically underperforming." Included in the document are a survey of (1) past and current reform efforts, (2) root causes of chronic underperformance, and (3) analyses of high-performing, high-poverty (HPHP) schools. From its analysis, Mass Insight developed a framework for state and district policy-shapers to use in developing the conditions necessary to help struggling schools achieve dramatic turnarounds.	The study recommends creating a state or district turnaround zone in order to change traditional operating conditions that inhibit reform. Changes include: ▪ CHANGE CONDITIONS: by creating a protected space free of bureaucratic restrictions and overly stringent collective bargaining agreements. Provide incentives to challenge and motivate people to do their best work. ▪ INCREASE CAPACITY: *internally*, of school personnel, especially school leaders, and *externally*, through the support of strong local providers with the experience and ability to serve as turnaround partners. ▪ ORGANIZE CLUSTERS OF SCHOOLS: either within a district or across districts, with their own lead turnaround partner to provide comprehensive services focused on turnaround. Clusters can be grouped by need, school type, region, or other characteristics. The report describes a two-stage process, "with fundamental transformation at the start [...and] steady, capacity-building improvement to follow". This model requires the state to drive local capacity-building and shift or redesign how schools work with external partners.

Essential Condition 1: Effective District Systems for School Support and Intervention

Childress, S., Elmore, R. F., Grossman, A., & Johnson, S. M. (Eds.). (2007). *Managing school districts for high performance: Cases in public education leadership.* Cambridge, MA: Harvard Education Press.

Summary/Methods	Findings/Recommendations
This study was conducted in order to provide both a conceptual framework and case studies from a variety of urban school districts to guide district leaders as they work to improve instruction at scale and to sustain that improvement. Public Education Leadership Project (PELP) researchers created a framework, cases, and readings in the course of their 4-year study of 15 urban school districts—and fluid partnerships with 9 districts —across the United States . The book presents five learning modules, which draw case study examples from the private-sector, nonprofits, and public education. Modules explore: (1) strategy & coherence, (2) human resource management, (3) a results-orientation, (4) implementation challenges, given wide differences among schools in a district, and (5) extended district case studies, which include districts past the first bloom of reform success.	The study found five implementation challenges that are common in urban districts: (1) Implementing a given strategy effectively across schools with different characteristics. (2) Redesigning the organization so that it supports the strategy. (3) Developing and managing human capital to carry out the strategy. (4) Allocating resources in alignment with the strategy. (5) Using performance data for decision making, organizational learning, and accountability. The PELP Coherence Framework illustrates the interdependence of district culture, systems and structures, resources, stakeholder relationships, and environment and shows how they can reinforce one another to support the implementation of an improvement strategy. Rather than a prescriptive strategy, the PELP framework asserts that coherence at district, school, and classroom levels makes the sustainability and effectiveness of any reform more likely.

Rothman, R. (Ed.). (2007). *City schools: How districts and communities can create smart education systems.* Cambridge, MA: Harvard Education Press.

Summary/Methods	Findings/Recommendations
This is an anthology of applied research-based essays designed to provide examples of partnerships school districts can make in order to provide a comprehensive web of support and opportunities for students. Methods vary by essay, but most emerge from ongoing applied research by the Annenberg Institute for School Reform of school districts, district-external support partnerships, and community engagement. Two of the essays are case studies—of Hamilton County, Tennessee, (by its former superintendent, Jesse Register), and of the Dallas, Texas, Arts Learning Initiative [DALI], a citywide approach to give all children the opportunity to "learn *in* and *through* the arts."	District reform efforts face two significant challenges: (1) Sustainability: Changing leadership and reform agendas, as well as the need for both instructional *and* political support and buy-in (at all levels), make even promising reforms difficult to sustain. (2) The qualitative difference between basic and proficient performance, and the different kinds of classroom and outside-school experiences needed to bridge that gap. Local Education Support Networks bring community organizations and schools together to support student learning (e.g., Harlem Children's Zone). Individual school-level partnerships make it more difficult to share strengths across schools in a district, and a Smart Education System aligns services to meet community needs. Foundations for a Smart Education System: ▪ Leadership development ▪ Applied research focusing on context and implementation ▪ Partners for innovation/instruction ▪ Governance structures to support collaboration across organizations

Essential Condition 1: Effective District Systems for School Support and Intervention

WestEd, in collaboration with McREL and NCREL. (2002). *Improving districts: Systems that support learning.* San Francisco, CA: WestEd.
For purchase: http://www.wested.org/cs/we/view/rs/566

Summary/Methods	Findings/Recommendations
This report, commissioned by the U.S. Department of Education, looks at nine districts that were recognized by the department's National Awards Program for Model Professional Development. The report includes descriptions of the roles and structures in place, how teachers' professional development is structured, and how data is used to guide decisions. Three Regional Educational Laboratories—WestEd, McREL, and NCREL—conducted the study of nine districts. Data was collected from site visits and interviews with members in the community, including administrators, teachers, parents, and school board members.	The successful professional development programs studied tended to: ▪ Involve the school community in developing standards. ▪ Be flexible and allow choice within professional development. ▪ Develop a community-wide vision and understanding of the action plan. ▪ Communicate both the content of and the rationale for new programs and approaches. ▪ Value and learn from the expertise within the district. ▪ Foster the development of learners and leaders. ▪ Develop a sense of shared responsibility with appropriate accountability at various levels. ▪ Cultivate a culture that expects progress that can be measured.

Essential Condition 1: Effective District Systems for School Support and Intervention

Coleman, P. & LaRocque, L. (1988). *Reaching out: Instructional leadership in school districts.* [Electronic version]. Peabody Journal of Education, 65 (4), 60-89.	
Summary/Methods	**Findings/Recommendations**
This study examines the similarities among the activities of superintendents in high-performing districts in British Columbia, Canada. This multi-year, multi-site study of school districts explored the relationship between district ethos and district quality. The approach is exploratory and descriptive based on an inferential conceptual framework.	Superintendents can have a profound effect on the work of other professionals in the district, and ultimately instruction, through the creation and maintenance of a positive district ethos. In high-performing school districts, the work of the superintendent tends to be more clearly focused on instructional issues, and accountability mechanisms tend to be stronger. Three aspects of superintendent instructional leadership are described: ▪ Reach: the superintendent's ability to influence the orientations of the staff. ▪ Vision: professional norms that shape and guide activities towards a goal. ▪ Range: the scope and diversity of activities to which the superintendent devotes time and energy.

Essential Condition 1: Effective District Systems for School Support and Intervention

Cross City Campaign for Urban School Reform. (2004*). Leading from the middle: Mid-level central office staff and instructional improvement.* Chicago, IL: Cross City Campaign for Urban School Reform. http://www.crosscity.org/pubs/index.html	
Summary/Methods	**Findings/Recommendations**
The report explores the district's role in instructional reform. In particular, it looks at the role of middle-level central office staff and their relationships with staff in local schools. The purpose is to provide a perspective on the role of the school district in improving instruction and help stir a national dialogue. In 2000, the study began its 3-year qualitative study in Chicago, Milwaukee, and Seattle. Data includes interviews, observations, and document collection at both the school and central office levels in these three districts. Accounts were taken from 55 mid-level managers.	Mid-level central office staff members play an important role in translating and communicating between top district leadership and school-level staff around instructional initiatives. They have significant impact on how district reform policies are understood and carried out by school leaders. Mid-level central office staff members describe their responsibilities as translating reform agendas into resources for schools to use, helping teachers and principals understand the relevance of data on student achievement, supporting staff development and training, and connecting people who have expertise to share with each other. They focus on developing relationships with other district office staff, school staff members, and reformers and/or scholars working on instructional change.

Laguarda, K. (2006). *District assistance to low-performing schools in an era of increasing accountability*. Washington, DC: Policy Studies Associates. http://www.policystudies.com/studies/school/Laguarda%20paper.pdf

Summary/Methods	Findings/Recommendations
This paper uses findings from the early years of No Child Left Behind (NCLB) to evaluate (a) the support provided to schools identified as needing improvement under NCLB, and (b) how, if at all, that support differed from the assistance offered to other schools. Title I Accountability Systems and School Improvement Efforts (TASSIE) was a 3-year, nationwide evaluation of district efforts to provide support and assistance to low-performing schools. Approximately 1,300 districts with schools receiving Title I funds participated in a yearly survey from 2001-04. Case studies of 20 elementary schools identified under Title 1 for improvement in 15 districts in five states were provided.	Districts tended to offer the same supports to all of their schools, regardless of context or performance. Many schools identified as needing improvement did not receive extra supports from their districts. In case study sites where districts did provide more intensive, school-based assistance, the efficacy of interventions varied widely. Districts appeared to have the capacity to help schools with "routine processes associated with school improvement" but struggled to tailor assistance to meet specific school needs, especially to directly improve instruction.

Essential Condition 1: Effective District Systems for School Support and Intervention

ADDITIONAL RESOURCES

The following resources are written for practitioner use, drawing from research but not reporting the research itself.

Agullard, K. & Goughnour, D. S. (2006). *Central office inquiry: Assessing organization, roles, and actions to support school improvement*. San Francisco, CA: WestEd.

This is a research-based tool, piloted in three central offices, to assist a superintendent who wants to engage in central office inquiry "in which key staff reflect on their shared theory of action and examine their current organizational arrangement, their enacted roles, and their day-to-day activities" to evaluate how well they are serving their schools. The three stages of inquiry involve (1) examining [current] support for continuous district improvement, (2) working to better understand district context, and (3) creating an aligned theory of action (which might require uncomfortable shifts in the current central office arrangement).

Gross, S. J. (2004). *Promises kept: Sustaining school and district leadership in a turbulent era.* Alexandria, VA: Association for Supervision and Curriculum Development.

This book grew out of the author's 5-year case study research of ten schools engaged in well sustained curricular reform. He expanded school visits to focus on how reform weathers turbulence, particularly that caused by the departure of a key leader. The focus on turbulence at the school level is instructive for central offices in their efforts to buffer schools from challenges that make reform efforts difficult to sustain over time.

Honig, M. & Copland, M. (September 2008). *Reinventing district central offices to expand student learning.* Center for Comprehensive School Reform and Improvement. Washington D.C.: Learning Point Associates. www.centerforcsri.org

An Issue Brief drawing from research and cases of three large school districts and describing new roles of the central office in terms of partnerships, central office staff development, inventiveness, and external support.

Essential Condition 2: Effective School Leadership

Essential Condition 2. Effective School leadership: The district and each school take action to attract, develop, and retain an effective school leadership team that implements a well-designed strategy for accomplishing a clearly defined mission and set of goals, in part by leveraging resources and obtaining staff commitment to improving student learning. Each school leadership team a) ensures staff understanding of and commitment to the school's mission and strategies, b) supports teacher leadership and a collaborative learning culture, c) uses supervision and evaluation practices that assist teacher development, and d) focuses staff time and resources on instructional improvement and student learning through effective management of operations and use of data for improvement planning and management.

Key Words:

School leadership and student achievement, principal leadership, school leadership, school leadership team, principal development

Organizations:

McREL: Mid-continent Research for Education and Learning, Public Agenda, Stanford Educational Leadership Institute, The Wallace Foundation, Trends in International Mathematics and Science Studies.

Limitations:

This summary includes publicly available documents with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

REL Northeast and Islands

Essential Condition 2: Effective School Leadership

Leithwood, K., Louis, K. S., Anderson, S. & Wahlstrom, K. (2004). *How leadership influences student learning*. Minneapolis, MN: Center for Applied Research and Educational Improvement, University of Minnesota.
http://www.wallacefoundation.org/WF/KnowledgeCenter/KnowledgeTopics/EducationLeadership/HowLeadershipInfluencesStudentLearning.html

Summary/Methods	Findings/Recommendations
This 87-page report summarizes over 30 years of research to review evidence on the effects of district and school leadership on student learning, and the practices of effective leadership. Existing research on effective leadership practices from the 1970s to 2004 was reviewed. The report draws on a broad range of empirical research from several organizational sectors (e.g., schools, the military) and countries (e.g.,U.S., Netherlands, Hong Kong) to identify lessons.	The work of superintendents and principals does affect student learning, second only to the quality of curriculum and teaching. The greatest impact tends to be in schools where the learning needs of students are more severe. District and school leaders contribute to student learning indirectly in three major areas: ▪ Setting directions by providing guidance that is clearly understood by all, establishing high expectations, and using data to monitor progress and performance. ▪ Supporting staff with resources and the professional development necessary to succeed. ▪ Managing and redesigning the organization so that the entire range of conditions in the district and schools fully supports teaching and learning.

Essential Condition 2: Effective School Leadership

Waters, J. T., Marzano, R. J., & McNulty, B. (2003). *Balanced leadership: What 30 years of research tells us about effect of leadership on student achievement.* Denver, CO: Mid-continent Research for Education and Learning (McREL).

http://www.mcrel.org/PDF/LeadershipOrganizationDevelopment/5031RR_BalancedLeadership.pdf

Also see Marzano, Waters, McNulty, *School Leadership that Works: from Research to Results* (2005). Alexandria VA: Association for Supervision and Development and Aurora, CO: Mid-continent Research and Education and Learning.

Summary/Methods	Findings/Recommendations
This synthesis of 30 years of quantitative studies examines the relationship between leadership practices and student achievement. From the research analysis, the authors develop the "Balanced Leadership Framework" that complements the commonly used and cited ISLLC [Council (of Chief State School Officers)'s Interstate School Leaders Licensure Consortium] standards. Researchers reviewed over 5,000 studies since 1970 that explored the relationship between school leadership and student achievement; 70 (representing almost 3,000 schools, 24,000 teachers, and 1.1 million students) met their criteria to be included in a meta-analysis. In addition, they surveyed 652 principals.	▪ Principal leadership demonstrates significant correlation with student achievement, with one standard deviation improvement in leadership corresponding to a 10-percentile improvement in student achievement. ▪ Twenty-one specific leadership qualities, associated with 66 specific practices, demonstrate statistically significant relationships with student achievement. ▪ Leaders can have a positive, marginal, or even negative effect on achievement. The determining factor is whether the leader focuses on and understands the proper changes for his or her particular school, as well as the leadership practices associated with those changes. ▪ This framework can be used to inform district and regional professional development, mentoring, and administrator evaluation, as well as for state licensure policies and administrator preparation programs. The leadership qualities identified involve more standards that "break from past practice" or involve "change leadership" than the ISLLC standards.

Essential Condition 2: Effective School Leadership

Vidoni, D., Bezzina, C., Gatelli, D., & Grasetti, L. (2008) *The role of school leadership on student achievement: Evidence from TIMSS 2003.* European Commission.	
Summary/Methods	**Findings/Recommendations**
Drawing on data from the Trends in International Mathematics and Science Study of 2003 (TIMMS 2003), this research used quantitative methods to investigates the relationship between the principal's (or head teacher's) time allocation and school characteristics, student background, and student achievement in 18 countries. The report includes an examination of the "economic nature of the educational good" as well as a summary of international research on school leadership and management.	While the study found negligible direct effects of principal's timeon student achievement, it found a difference between leadership and management activity: "High concentrations of school leadership are especially valuable for students of lower SES [socioeconomic status]. On the other hand, the high concentrations of school management are most valuable to students with higher SES."The authors posit that this finding could be because leadership implies deep involvement of the principal in the 'modeling and tailoring of the educational process to the needs of students," while management "aims at rationalizing and making the best use of resources." Authors also found that principals' involvement in activities related to student achievement appears to reduce the connection between student results and their family socioeconomic status.

Appalachia Educational Laboratory at Edvantia. (2005). *Shared leadership and student achievement*. Charleston WV: Edvantia

Summary/Methods	Findings/Recommendations
This literature review describes "ways of thinking about sharing school leadership and examine[s] the possible link between shared leadership and student achievement." The authors summarize research on four approaches to school leadership that involves more than one person: school-based management, teacher leadership, distributed leadership, and shared leadership (the latter linked to the presence of a "professional learning community").	▪ "While a substantial amount of qualitative research exists on the subject of sharing leadership, . . .only a small number of studies examine instructional benefits, and the findings of those studies yield ambiguous results." ▪ Ambiguity may be due to the quality of shared leadership implementation, which varies widely, or to weaknesses in the studies themselves. ▪ "The next phase of research on sharing school leadership should move beyond description and focus more on explanation, and incorporate longitudinal studies that capture change over time.

Public Impact (2008). *School turnaround leaders: Competencies for success*. Chapel Hill NC: Public Impact for The Chicago Public Education Fund.

Summary/Methods	Findings/Recommendations
"The four resources in the Competencies for Turnaround Success Series are designed to help district officials identify and hire the right leaders and teachers for this demanding role. These resources clarify the most critical competencies – or patterns of thinking, feeling, speaking and acting – that enable people to be successful in attempts to transform schools from failure to excellence quickly and dramatically." It is based on an earlier analysis of 59 cross-sector case studies in which "public and private organizations that were failing by many measures made very rapid, dramatic performance improvements".	The authors identify four clusters of competence: ▪ *Driving for Results,* which includes "a strong desire to achieve outstanding results and [implementation of] the task-oriented actions required." ▪ *Influencing for Results,* or motivating others to join in the work. ▪ *Problem-Solving,* including analysis of data to inform decisions, making clear logical plans that people can follow, and ensuring strong connections between school learning goals and classroom activity." ▪ *Showing confidence to lead,* i.e., "the public display of self-confidence, staying visibly focused, committed and self-assured" through the public and private attacks that are common.

Mintrop, H. & Trujillo, T. (2005). *Corrective action in low-performing schools: Lessons for NCLB implementation from state and district strategies in first-generation accountability systems.* Report 657. Los Angeles, CA: Center for the Study of Evaluation, UCLA. http://www.cse.ucla.edu/products/summary.asp?report=657

Summary/Methods	Findings/Recommendations
The authors extract lessons from the experiences of states and districts that instituted NCLB-like accountability systems prior to 2001 (here called first-generation accountability systems). They studied the accountability systems of three smaller states (Kentucky, Maryland, North Carolina), four larger ones (California, Florida, New York, Texas), and two large districts (Chicago and Philadelphia). The places studied varied in their theories of action and in the nature of supports they provided. The authors analyzed evaluative reports and policy documents and conducted interviews with state officials and researchers.	Continuous school improvement requires a "sophisticated infrastructure that comprehensively 'moves on all fronts.'" The data from the nine sites were condensed into eight lessons relevant to design effective education accountability systems: (1) Sanctions are not the fallback solution. (2) No single strategy has been universally successful. (3) Staging should be handled with flexibility. (4) Intensive capacity-building is necessary. (5) A comprehensive bundle of strategies is key. (6) Relationship-building needs to complement powerful programs. (7) Competence reduces conflict. (8) Strong state commitment needed to create system capacity. "Ambitious performance goals without a well structured and well supported capacity-building strategy create ineffective, low-performing school programs, with undesirable political consequences." "Accountability systems designed in the medium range of cognitive complexity, with modest pressures and reasonably elaborate capacity-building structures, may be a good start" (p. 30).

Johnson, J., Rochkind, J. & Doble, J. (2008). *A mission of the heart: Leaders in high-needs districts talk about what it takes to transform a school.* New York: Public Agenda and The Wallace Foundation.	
Summary/Methods	**Findings/Recommendations**
"Prepared for The Wallace Foundation by Public Agenda, *A Mission of the Heart* attempts to understand the best ways to recruit and sustain top leaders in high-needs schools. The study is based on five in-depth focus groups with principals in high-needs districts and sixteen one-on-one interviews with superintendents and other high-ranking education officials, including a state superintendent of education."	**"**The study reveals that principals often fall into two distinct categories: "Transformers" and "Copers." Transformers had an explicit vision for what their school might be and a 'can do' attitude about changing the status quo. Copers were often caring and well intentioned, but rarely able to do more than just 'cope' with the turmoil of the day. Other observations from the study touch on topics ranging from managing teaching staff to whether top-notch principals are 'made' or 'born.'"

Essential Condition 2: Effective School Leadership

Darling-Hammond, L., LaPointe, M., Meyerson, D., & Orr, M. (2007). *Preparing school leaders for a changing world: Executive summary*. Stanford, CA: Stanford University, Stanford Educational Leadership Institute.	
Summary/Methods	**Findings/Recommendations**
The study examined eight exemplary pre- and in-service principal development programs, . .chosen because they had "evidence of strong outcomes in preparing school leaders" and because as a group they represented a variety of approaches, designs, and policy contexts. Researchers interviewed program faculty and administrators, participants and others; surveyed participants and graduates about their experiences; and observed them in their jobs.	The report found that successful programs had "comprehensive and coherent curricula aligned with state and professional standards" that effectively blended theory and practice. These included "well designed and supervised administrative internships." Recruitment and selection strategies were important, as was the creation of a cohort structure that provided peer support and formal mentoring by expert principals.

Bryk, A. & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York: Russell Sage Foundation.	
Summary/Methods	**Findings/Recommendations**
This book provides a framework for relational trust in schools, case studies of three urban elementary schools, and analysis of the relationship of trust to academic achievement. Data for the analysis come from 10 years of research in Chicago schools, including longitudinal case studies of 12 schools and large-scale quantitative data collected from all public schools.	Bryk and Schneider have developed a grounded theory of social trust in school communities that focuses on interpersonal social exchanges and how they "shape the thinking and behavior of local school actors." The authors measure trust between teachers and parents, teachers and principal, and among teachers. When teachers were more likely to engage in the "hard work of school improvement" and all parties were more likely to treat one another with respect and acceptance of good intentions, school communities with high relational trust were more likely to demonstrate marked improvements in academic productivity.

Essential Condition 3: Aligned Curriculum

Essential Condition 3. Aligned Curriculum: The district ensures that each school's taught curricula a) are aligned to state curriculum frameworks and to the MCAS performance level descriptions, and b) are also aligned vertically (between grades) and horizontally (across classrooms at the same grade level and across sections of the same course).

Key Words/Phrases:

Aligned curriculum (curriculum alignment), frameworks, standards

Organizations:

Appalachia Educational Laboratory, ABC education consultants.

Limitations:

This summary includes publicly available documents, whenever possible, with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

Essential Condition 3: Aligned Curriculum

Squires, D. A. (2009). *Curriculum alignment: Research-based strategies for increasing student achievement.* Thousand Oaks, CA: Corwin Press. See also Squires, D. A. (2005). *Aligning and balancing the standards-based curriculum*. Thousand Oaks, CA: Corwin Press.	
Summary/Methods	**Findings/Recommendations**
"The goal of this book is to refine practitioners' knowledge of alignment issues and to demonstrate what districts can do now to improve their alignment process and student achievement based on research. The book concludes by demonstrating how curriculum can be a systemic tool for addressing many alignment issues as well as a tool for improving achievement."	"Chapter 10 summarizes the results of Balanced Curriculum as one model of alignment, showing improved achievement in districts around the country."

Essential Condition 3: Aligned Curriculum

Schmidt, W. H., McKnight, C. C., Houang, R. T., Wang, H. C., Wiley, D. E., Cogan, L. S., et al. (2001). *Why schools matter: A cross-national comparison of curriculum and learning.* San Francisco, CA: Jossey-Bass.	
Summary/Methods	**Findings/Recommendations**
"In this book, we seek to offer fresh hope and direction to reform efforts by focusing on a fundamental aspect of education accessible and amendable to education policy and change—the curriculum. We document in detail aspects of the mathematics and science curriculum in the United States and Other Third International Mathematics and Science Study (TIMSS) countries. In the course of this examination, we've been able to demonstrate very dramatic results on the strength of the relationship of curriculum to learning." This study gathered data on four aspects of curriculum, "content standards, text-book space, teacher content goals, and duration of content coverage" in order to determine the relationship of curriculum to student learning (as demonstrated by TIMMS data).	Using data from the Third International Mathematics and Science Study (TIMSS), the authors find that "even controlling for many student background differences, these curriculum measures are strongly related to what students learn".

Appalachia Educational Laboratory. (2005). *Research brief: Aligned curriculum and student achievement*. Charlestown, WV: Edvantia. http://www.edvantia.org/pdta/pdf/Aligned.pdf	
Summary/Methods	**Findings/Recommendations**
"This research digest summarizes the research literature, specifically addressing textbook alignment, instructional alignment, alignment between state standards and enacted curriculum, curriculum alignment through professional development, and findings from international alignment studies."	"The studies reported in this review provide strong evidence from scientifically based research that aligning the various components can have positive and significant effects."

Reys, R., Reys, B., Lapan, R., Holliday, G., & Wasman, D. (2003). Assessing the impact of "standards"-based middle grades mathematics curriculum materials on student achievement. *Journal for Research in Mathematics Education*, *34*(1), 74-95.	
Summary/Methods	**Findings/Recommendations**
"This study compared the mathematics achievement of eighth graders in the first three school districts in Missouri to adopt NSF-funded, Standards-based middle grades mathematics curriculum materials (*MATH Thematics* or *Connected Mathematics Project*) with students from other districts who had similar prior mathematics achievement and family income levels. Achievement was measured using the mathematics portion of the Missouri Assessment Program (MAP) administered to all eighth graders in the state annually, beginning in the spring of 1997."	"Significant differences in achievement were identified between students using Standards-based curriculum materials for at least 2 years and students from comparison districts using other curriculum materials. All of the significant differences reflected higher achievement of students using Standards-based materials. Students in each of the three districts using Standards-based materials scored higher in two content areas (data analysis and algebra), and these differences were significant."

Additional Resources

Duncan, R. G. (2009). Learning progressions: Aligning curriculum, instruction, and assessment. *Journal of Research in Science Teaching 46*(6), 606-609.

English, F. W. & Steffy, B. E. (2001). *Deep curriculum alignment: Creating a level playing field for all children on high-stakes tests of educational accountability.* Lanaham, MD: Scarecrow Press.

Roach, A. T., Niebling, B. C., & Kurz, A. (2008). Evaluating the alignment among curriculum, instruction, and assessment: Implications and applications for research and practice. *Psychology in the Schools, 45*(2), 158-176.

Wang, M., Haertel, G., & Walberg, H. (1993). Toward a knowledge base for school learning. *Review of Educational Research 63*, 249-294.

Essential Condition 4: Effective Instruction

Essential Condition 4. Effective Instruction: The district ensures that instruction reflects effective practice and high expectations for all students, focuses on clear objectives, uses appropriate educational materials, and includes a) a range of strategies, technologies, and supplemental materials aligned with students' developmental levels and learning needs; b) instructional practices and activities that build a respectful climate and enable students to assume increasing responsibility for their own learning; and c) use of class time that maximizes student learning. Each school staff has a common understanding of the features of high-quality standards-based instruction and a system for monitoring instructional practice.

Key Words/Phrases:

Instructional practices/strategies, high expectations, learning objectives, student learning responsibility, student learning/performance

Organizations:

Center for Research on the Education of Students Placed at Risk, The Institute for Effective Instruction, The Center on Innovation and Improvement

Limitations:

This summary includes publicly available documents, whenever possible, with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

Marzano, R. J., Gaddy, B. B., & Dean, C. (2000). *What works in classroom instruction.* Aurora, CO: Mid-continent Research for Education and Learning.
http://www.mcrel.org/PDF/Instruction/5992TG_What_Works.pdf.
See also Marzano, R. J., Pickering, D. J., Pollock, J. E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement.* Alexandria, VA: Association for Supervision and Curriculum Development.
See also Marzano, R. J. (1998). *A theory-based meta-analysis of research on instruction.* Aurora, CO: Mid-continent Research for Education and Learning.
http://www.mcrel.org/PDF/Instruction/5982RR_InstructionMeta_Analysis.pdf.

Summary/Methods	Findings/Recommendations
"The synthesized research findings presented in this document are based in part on an earlier technical document published by McREL entitled *A Theory-Based Meta-Analysis of Research on Instruction* (Marzano, 1998), which summarizes findings from more than 100 studies involving 4,000+ comparisons of experimental and control groups. Since that document was published, McREL researchers have analyzed additional research findings from selected research on instructional strategies that could be used by teachers in K–12 classroom. . . .The research technique we used is referred to as *meta-analysis*, a strategy that combines the results from a number of studies to determine the net effect of an intervention. Just as with a single study, this net effect can be translated into an expectation about achievement gain or loss, but in this case it has the added value of representing many studies."	"The average effect size of these strategies ranges from .59 to 1.61. . . .No instructional strategy works equally well in all situations. The effectiveness of a strategy depends in part on the current achievement level of a student, in part on the skill and thoughtfulness with which a teacher applies the strategy, and in part on contextual factors such as grade level and class size. Instructional strategies are only tools. We strongly recommend that teachers keep this in mind as they review the strategies presented in this manual and use them with students. Although the strategies presented in this manual are certainly good tools, they should not be expected to work equally well in all situations, or with all students, even when expertly used."

Brophy, J. (2000). *Teaching*. Brussels, Belgium: International Academy of Education and Geneva, Switzerland: Palais des Académies. http://www.ibe.unesco.org/fileadmin/user_upload/archive/publications/EducationalPracticesSeriesPdf/prac01e.pdf.

Summary/Methods	Findings/Recommendations
"This booklet is a synthesis of principles of effective teaching that have emerged from research in classrooms. It addresses generic aspects of curriculum, instruction and assessment, as well as classroom organization and management practices that support effective instruction. It focuses on learning outcomes but with recognition of the need for a supportive classroom climate and positive student attitudes towards schooling, teachers and classmates. Much of the research support for these principles comes from studies of relationships between classroom processes(measured through observation systems) and student outcomes (most notably, gains in standardized achievement tests). However, some principles are rooted in the logic of instructional design (e.g., the need for alignment among a curriculum's goals, content, instructional methods and assessment measures). In addition, attention was paid to emergent theories of teaching and learning (e.g., socio-cultural, social constructivist) and to the standards statements circulated by organizations representing the major school subjects. Priority was given to principles that have been shown to be applicable under ordinary classroom conditions and associated with learning outcomes."	Findings suggest that the following are needed to optimize student learning: ▪ A supportive classroom climate. ▪ Opportunity to learn. ▪ Curricular alignment. ▪ Establishing learning orientations. ▪ Coherent content. ▪ Thoughtful discourse. ▪ Practice and application activities. ▪ Scaffolding students' task engagement. ▪ Strategy teaching. ▪ Co-operative learning. ▪ Goal-oriented assessment. ▪ Achievement expectations.

Essential Condition 4: Effective Instruction

Pashler, H., Bain, P. M., Bottge, B. A., Graesser, A., Koedinger, K., McDaniel, M., and Metcalfe, J. (2007). *Organizing instruction and study to improve student learning*. (NCER 2007-2004). Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. http://ies.ed.gov/ncee/wwc/pdf/practiceguides/20072004.pdf	
Summary/Methods	**Findings/Recommendations**
"The recommendations in this practice guide are intended to provide teachers with specific strategies for organizing both instruction and students' studying of material to facilitate learning and remembering information, and to enable students to use what they have learned in new situations. In classifying levels of empirical support for the effectiveness of our recommendations, we have been mindful not only to the issue of whether a study meets the 'gold-standard' of a randomized trial, but also to the question 'Effective as compared to what?' Virtually any educational manipulation that involves exposing students to subject content, regardless of how this exposure is provided, is likely to provide some benefit when compared against no exposure at all. To recommend it, however, the question becomes 'Is it more effective than the alternative it would likely replace?' In laboratory studies, the nature of instruction in the control group is usually quite well defined, but in classroom studies, it is often much less clear. In assessing classroom studies, we have placed most value on studies that involve a baseline that seems reasonably likely to approximate what might be the 'ordinary practice default.'"	"We recommend a set of actions that teachers can take that reflect the process of teaching and learning, and that recognizes the ways in which instruction must respond to the state of the learner. It also reflects our central organizing principle that learning depends upon memory, and that memory of skills and concepts can be strengthened by relatively concrete—and in some cases quite non-obvious—strategies." Recommended actions include: ▪ Space learning over time. ▪ Interleave worked example solutions with problem-solving exercises. ▪ Combine graphics with verbal descriptions. ▪ Connect and integrate abstract and concrete representations of concepts. ▪ Use quizzing to promote learning. ▪ Help students allocate study time efficiently. ▪ Ask deep explanatory questions.

Von Secker, C. E. & Lissitz, R. W. (1999). Estimating the impact of instructional practices on student achievement in science. *Journal of Research in Science Teaching 36*(10), 1110-1126.	
Summary/Methods	**Findings/Recommendations**
"This study used a hierarchical linear model (HLM) to estimate the direct and indirect effects of the instructional practices recommended by ten National Science Education Standards on individual achievement. Three pedagogical reforms—namely, providing more opportunities for laboratory inquiry, increasing emphasis on critical thinking, and reducing the amount of teacher-centered instruction—were expected to account for variability in school mean achievement and explain why gender, racial-ethnic status, and socioeconomic status have more influence on achievement of students in some schools than in others."	"Results suggest that whereas the instructional polices recommended by the authors of the Standards may be associated with higher achievement overall, they are equally likely to have the unintended consequences of contributing to greater achievement gaps among students with different demographic profiles. Theoretical expectations about the impact of instructional practices on academic excellence and equity require further evaluation."

Essential Condition 4: Effective Instruction

Slavin, R. E., Lake, C., Chambers, B., Cheung, A., & Davis, S. (2009). *Effective beginning reading programs: A best-evidence synthesis.* Retrieved from the Center for Data-Driven Reform in Education at John's Hopkins University School of Education. www.bestevidence.org/word/begin_read_Feb_09_2009.pdf	
Summary/Methods	**Findings/Recommendations**
"This article systematically reviews research on the achievement outcomes of four types of approaches to improving the beginning reading success of children in kindergarten and first grade: ▪ Reading curricula. ▪ Instructional technology. ▪ Instructional process programs. ▪ Combinations of curricula and instructional process. Study inclusion criteria included use of randomized or matched control groups, a duration of at least 12 weeks, valid achievement measures independent of the experimental treatments, and a final assessment at the end of grade 1 or better. A total of 62 studies met these criteria."	"The review concludes that instructional process programs designed to change daily teaching practices have substantially greater research support than programs that focus on curriculum or technology alone. In particular, positive achievement effects were found for Success for All, PALS, phonological awareness training, and other programs focused on professional development."

Essential Condition 5: Student Assessment

Essential Condition 5. Student Assessment: The district ensures that each school uses a balanced system of formative and benchmark assessments to guide instruction and determine individual remedial and enrichment requirements. Benchmark assessments are given 4 – 8 times per year.

Key Words/Phrases:

Tiered instruction, benchmark/formative assessment, response to intervention, differentiated/enriched instruction

Organizations:

Institute for Education Sciences, What Works Clearinghouse, Assessment for Learning

Limitations:

This summary includes publicly available documents, whenever possible, with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

Essential Condition 5: Student Assessment

Wiliam, D. (2007). *What does research say the benefits of formative assessment are?* Research Brief. Retrieved from the National Council of Teachers of Mathematics.

http://www.nctm.org/uploadedFiles/Research_News_and_Advocacy/Research/Clips_and_Briefs/Research_brief_05_-_Formative_Assessment.pdf.

See also: Wiliam, D., & Leahy, S. (2007). A theoretical foundation for formative assessment. In J. McMillan (Ed.), *Formative classroom assessment: Theory into practice*. New York: Teachers College Press.

See also: Wiliam, D., & Thompson, M. (2007). Integrating assessment with instruction: What will it take to make it work? In C. A. Dwyer (Ed.), *The future of assessment: Shaping teaching and learning*. Mahwah, NJ: Lawrence Erlbaum Associates.

Summary/Methods	Findings/Recommendations
This is a research brief summarizing the literature on formative assessment. Formative assessment is referred to "Assessment for learning" which is an assessment for which the first priority in its design and practice is to serve the purpose of promoting pupils' learning."	"Two reviews of research in this area (Natriello. 1987; Crooks, 1998) found that assessment practices could have substantial positive impact on students' attitudes and achievement, although the impact was more often negative. Further reviews of research by Bangert-Drowns and his colleagues (1991), by Kluger and DeNisi (1996), by Black and Wiliam (1998), and by Nyquist (2003) have clarified when assessment helps and when it hinders student learning. Most recently, Wiliam (2007) has synthesized the research on how assessment can support the learning of mathematics specifically. The available research evidence suggests that formative assessment produces a greater increase in a student's achievement than class-size reduction or increase in teacher's content knowledge, and at a fraction of the cost (Wiliam and Thompson, 2007)."

Essential Condition 5: Student Assessment

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7-74.	
Summary/Methods	**Findings/Recommendations**
"This article is a review of the literature on classroom formative assessment. The perceptions of students and their role in self-assessment are considered alongside analysis of' the strategies used by teachers and the formative strategies incorporated in such systemic approaches as mastery learning. There follows a more detailed and theoretical analysis of the nature of feedback, which provides a basis for a discussion of the development of theoretical models for formative assessment and of the prospects for the improvement of practice."	"Several studies show firm evidence that innovations designed to strengthen the frequent feedback that students receive about their learning yield substantial learning gains."

Essential Condition 5: Student Assessment	
Gersten, R., Beckmann, S., Clarke, B., Foegen, A., Marsh, L., Star, J. R., & Witzel, B. (2009). *Assisting students struggling with mathematics: Response to Intervention (RtI) for elementary and middle schools* (NCEE 2009-4060). Washington, D C: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. http://ies.ed.gov/ncee/wwc/pdf/practiceguides/rti_math_pg_042109.pdf.	
Summary/Methods	**Findings/Recommendations**
"Students struggling with mathematics may benefit from early interventions aimed at improving their mathematics ability and ultimately preventing subsequent failure. This guide provides eight specific recommendations intended to help teachers, principals, and school administrators use Response to Intervention (RtI) to identify students who need assistance in mathematics and to address the needs of these students through focused interventions. The guide provides suggestions on how to carry out each recommendation and explains how educators can overcome potential roadblocks to implementing the recommendations." "The panel relied on WWC evidence standards to assess the quality of evidence supporting mathematics intervention programs and practices. The WWC addresses evidence for the causal validity of instructional programs and practices according to WWC standards. Information about these standards is available at http://ies.ed.gov/ncee/wwc/references/standards/."	The eight recommendations are: **Tier 1** 1. Screen all students to identify those at risk for potential mathematics difficulties and provide interventions to students identified as at risk. **Tiers 2 and 3** 2. Instructional materials for students receiving interventions should focus intensely on in-depth treatment of whole numbers in kindergarten through grade 5 and on rational numbers in grades 4 through 8. These materials should be selected by committee. 3. Instruction during the intervention should be explicit and systematic. This includes providing models of proficient problem solving, verbalization of thought processes, guided practice, corrective feedback, and frequent cumulative review. 4. Interventions should include instruction on solving word problems that is based on common underlying structures. 5. Intervention materials should include opportunities for students to work with visual representations of mathematical ideas and interventionists should be proficient in the use of visual representations of mathematical ideas. 6. Interventions at all grade levels should devote about 10 minutes in each session to building fluent retrieval of basic arithmetic facts. 7. Monitor the progress of students receiving supplemental instruction and other students who are at risk. 8. Include motivational strategies in Tier 2 and Tier 3 interventions.

Essential Condition 5: Student Assessment

Gersten, R., Compton, D., Connor, C. M., Dimino, J., Santoro, L., Linan-Thompson, S., and Tilly, W. D. (2008). *Assisting students struggling with reading: Response to Intervention and multi-tier intervention for reading in the primary grades. A practice guide*. (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

http://ies.ed.gov/ncee/wwc/pdf/practiceguides/rti_reading_pg_021809.pdf

Summary/Methods	Findings/Recommendations
"In the primary grades students with reading difficulties may need intervention to prevent future reading failure. This guide offers specific recommendations to help educators identify students in need of intervention and implement evidence-based interventions to promote their reading achievement. It also describes how to carry out each recommendation, including how to address potential roadblocks in implementing them." "The panel relied on WWC evidence standards to assess the quality of evidence supporting mathematics intervention programs and practices. The WWC addresses evidence for the causal validity of instructional programs and practices according to WWC standards. Information about these standards is available at http://ies.ed.gov/ncee/wwc/references/standards/."	Recommendations of the guide included: *Screen all students for potential reading problems at the beginning of the year and again in the middle of the year*. Regularly monitor the progress of students at risk for developing reading disabilities. Tier 1 intervention/general education: *Provide time for differentiated reading instruction for all students based on assessments of students' current reading level.* Tier 2 intervention: *Provide intensive, systematic instruction on up to three foundational reading skills in small groups to students who score below the benchmark score on universal screening*. Typically, these groups meet between three and five times a week, for 20 to 40 minutes. *Monitor the progress of tier 2 students at least once a month*. Use these data to determine whether students still require intervention. For those students still making insufficient progress, school-wide teams should design a tier 3 intervention plan. Tier 3 intervention: *Provide intensive instruction on a daily basis that promotes the development of the various components of reading proficiency to students who show minimal progress after reasonable time in tier 2 small group instruction.*

Additional Resources

McMillan, J. (2007). Formative classroom assessment: The key to improving student achievement. In J. McMillan (Ed.), *Formative classroom assessment: Theory into practice*. New York: Teachers College Press.

Essential Condition 6. Principal's Staffing Authority

Essential Condition 6. Principal's Staffing Authority: The district ensures that each principal has the authority, guidance, and assistance needed to make staffing decisions based on the school's improvement plan and student needs.

Key Words/Phrases:

Principal, authority, staffing decisions, hiring

Organizations:

New Teacher Project, Wallace Foundation, RAND, Center for Reinventing Public Education (CRPE)

Limitations:

This summary includes publicly available documents, whenever possible, with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

Daly, T., Keeling, D., Grainger, R., & Grundies, A. (2008). Mutual benefits: *New York City's shift to mutual consent in teacher hiring.* New York: The New Teacher Project.
http://www.tntp.org/files/MutualBenefits.pdf

Summary/Methods	Findings/Recommendations
"In 2005, the New York City Department of Education (NYCDOE) and its teachers union, the United Federation of Teachers (UFT), agreed to a groundbreaking contract that reformed outdated school staffing provisions. Specifically, the new contract changed the staffing process for teachers and schools in three major ways. First, it protected the right of schools to choose which teachers they hired, regardless of seniority. Second, it ended the "bumping" of novice teachers out of their positions by senior teachers who claimed these positions based on seniority and without input from principals or school staffs. Finally, it established a more open hiring process for "excessed" teachers (those displaced from their positions because of falling school enrollments, budget declines, programmatic changes, or school closures). As this paper will illustrate, the mutual consent system has resulted in mutual benefits for teachers and schools by offering better choices, increased flexibility, and greater transparency throughout the staffing process. The positive impact of this policy shift on New York City teachers is especially noteworthy." "Data included in this report were collected by The New Teacher Project (TNTP) between May 2006 and December 2007. . . .TNTP collaborated with district staff to track excessed teacher data from payroll, human resources, and teacher tracking systems. . . .TNTP conducted several surveys of excessed teachers."	This study finds that the mutual consent system has: ▪ Earned strong support from New York City teachers. ▪ Successfully facilitated thousands of transfers. ▪ Resulted in positions that teachers find satisfying. ▪ Resulted in positions that teachers plan to keep. ▪ Provided fair and equal access to vacancies. ▪ Not disadvantaged high-poverty schools. In addition to giving schools greater choice in teacher hiring, the system has not spurred an exodus of teachers from high-poverty schools. A number of underlying factors appear to contribute to the success of the mutual consent system. First, it is far simpler and more transparent than the multi-faceted system it replaced, in which different schools used a number of technological systems to track hiring, and vacancies were not centrally accessible to all teachers in real time. Second, the new system respects a strong preference by educators to have consent from both sides in hiring decisions, as opposed to a process-driven system in which consent plays little if any role. Third, the district supports the new hiring process with new technological infrastructure built to facilitate interactions between teachers and schools."

Essential Condition 6: Principal's Staffing Authority

Gill, B. P., Hamilton, L. S., Lockwood, J. R., Marsh, J. A., Zimmer, R. W., Hill, D., & Pribesh, S. (2005). *Inspiration, perspiration, and time: Operations and achievement in Edison schools.* Santa Monica, CA: RAND Education, Monograph. http://www.rand.org/pubs/monographs/2005/RAND_MG351.pdf	
Summary/Methods	**Findings/Recommendations**
"In 2000, Edison contracted with the RAND Corporation to conduct a comprehensive evaluation of the performance of the schools it manages. This monograph is the final product of this multiyear evaluation. It examines Edison's strategies for improving schools, the implementation of these strategies in a sample of Edison schools across the United States, and the achievement trends attained by students in Edison schools." As one part of the evaluation, Edison examined the impact of principal hiring and firing authority on student achievement trends. Principal authority was investigated using case studies, which was found to "shed light on differences in achievement trajectories among Edison schools. Case study findings are not definitive, because the sample is small and relationships can be measured only in simple, correlational terms, but they are nevertheless suggestive."	"There is some evidence that Edison schools that operate with fewer local constraints on the model, and where principals have full authority over hiring and firing teachers, may have better achievement trends." In particular, "schools in which the principal has full authority to hire and fire teachers (as desired by Edison) have slightly better achievement trends in reading (0.4 on the z-score scale) and in math (0.1 on the z-score scale). All of these differences are small (and short of statistical significance), so they should be viewed only as suggestive."

Essential Condition 6: Principal's Staffing Authority

Gross, B., DeArmond, M., & Goldhaber, D. (2008) *Is it better to be good or lucky? Decentralized teacher selection in 10 elementary schools*. CRPE Working Paper #3.
http://www.crpe.org/cs/crpe/download/csr_files/wp_crpe3_joyce_may08.pdf

Summary/Methods	Findings/Recommendations
"This paper reports on a qualitative field study that describes recruitment and interview practices in 10 elementary schools in a large, decentralized urban school district. While all of the schools followed a common procedure, we found striking differences in the extent to which they actively recruited teachers and articulated consistent hiring priorities. We argue that these differences and the schools' subsequent hiring outcomes are contingent on a complex interaction of school-based knowledge, resource constraints, and each school's relative standing in the district's internal labor market. As in prior research on school decentralization, these contingencies offer an important caveat to the premise that school-based hiring will, by virtue of empowerment alone, lead to more effective teacher recruitment and selection."	Findings of the study include: • "District's site-based hiring system was better than having centralized teacher assignments, and most respondents wished they had more local authority (for example, by eliminating the restrictions on who they could interview in each cycle). • However, school-based hiring reforms can fall short for at least two reasons: ▪ First, school-based hiring policies assume local capacity and technical expertise that may or may not be present. Schools may be more or less entrepreneurial and more or less clear about who they are as a school and what they want in teacher candidates. ▪ Second, the reforms can fall short if they ignore the relative attractiveness of schools and its effect on staffing outcomes. o In the end, even though the 10 schools approached teacher selection differently, the impact of these differences appeared to be mitigated by the school's relative attractiveness in the district's internal labor market. o Schools in less attractive areas may ultimately be better off if they are more active and coherent, but their relative place in the local labor market can frustrate their efforts. Improving the effectiveness and equity of the teacher selection process is likely to require systemic solutions. These include investing in the capacity of school personnel to conduct effective interviews and evaluate candidates; increasing the supply of teachers for hard-to-staff schools; and collecting and providing more useful information to schools."

Harris, D. N., Rutledge, S. A., Ingle, W. K., & Thompson, C. C. (2007). *Mix and match: What principals look for when hiring teachers and what this means for teacher quality policies.* Retrieved from Teacher Quality Research. http://www.teacherqualityresearch.org/mix_match.pdf

Summary/Methods	Findings/Recommendations
"Principals' preferences for teachers have important, but largely unexplored, implications for centralized educational policies aimed at improving teacher quality. Using interviews of school principals in a mid-sized Florida school district, we examine in-depth the characteristics principals prefer." "To understand principals' hiring preferences, we chose to conduct a mixed methods analysis that allowed us to collect complementary sources of data and to identity and analyze principals' preferred choices while also exploring the connotation and context of these choices. . . .The subjects of the study are 30 principals draw from a mid-sized Florida school district, who are responsible for screening and selection of teachers at their schools, as well as three district official involved in hiring."	The report finds "that the principals in our study prefer teachers with a mixture of personal and professional qualities—what we call the 'individual mix.' They also prefer an 'organizational mix,' hiring teachers who differ from those already in the school in terms of race, gender, experience, and skills. Finally, these principals want an 'organizational match' in which teachers have similar work habits and a high propensity to remain with the school over time. Several findings have immediate implications for teacher quality-related policies: ▪ The principals' frequent references to the needs of their individual schools (organizations) highlights the potential need for local control over teacher quality; and ▪ The principals' preferences were clearly influenced by policies such as school accountability, teacher certification and teacher tenure, though not always in the intended ways. These findings are significant given that principals are likely to minimally comply with centralized policies that conflict with their preferences and that principals generally play some role, and often a significant one, in teacher quality-related decisions."

Johnson, S. M., Berg, J. H., & Donaldson, M. L. (2005). Who stays in teaching and why: A review of the literature on teacher retention. (Chapter 3) Harvard Graduate School of Education: The Project on the Next Generation of Teachers. http://assets.aarp.org/www.aarp.org_/articles/NRTA/Harvard_report.pdf	
Summary/Methods	**Findings/Recommendations**
"Increasingly, reports from research and practice suggest that a teacher's hiring experience may influence her satisfaction and retention in teaching. Although it is often difficult to separate teacher hiring from other working conditions and thus isolate its effect on teacher outcomes, recent evidence attests to the impact of hiring on new teachers' job satisfaction (Liu, 2004; McCarthy & Guiney, 2004). This small body of empirical research on teacher hiring contributes to a field largely based on a few case studies oriented towards defining "best practices" rather than describing broader, empirical findings. It should be noted that the empirical work on teacher hiring is still very sparse."	"Many districts are changing the way they conduct hiring. A substantial number of urban districts recognize late hiring as a problem and are working to decrease the number of new teachers hired near or after Labor Day. . . .Moreover, many districts are moving hiring from the central office to the school site. These changes warrant study. Are principals prepared to spend the time and money needed to make hiring information-rich? How will experienced teachers, who may be involved on hiring committees, respond to new hiring practices? Finally, will these changes in hiring lead to greater teacher satisfaction and retention, both in the applicant pool and once in the classroom?"

Essential Condition 6: Principal's Staffing Authority

Levin, J., Mulhern, J., & Schunk, J. (2005). *Unintended consequences: The case for reforming the staffing rules in urban teachers union contracts.* Retrieved from The New Teacher Project.
http://www.tntp.org/files/UnintendedConsequences.pdf

Summary/Methods	Findings/Recommendations
"Nearly everyone involved in the enterprise of schooling understands the profound importance of building and sustaining a high-quality team of teachers. Moreover, the research is clear: The single most important school-based determinant of student achievement is the quality of the teacher in the classroom. Yet, urban schools must often staff their classrooms with little or no attention to quality or fit because of the staffing rules in their teachers union contracts. This report focuses on the contractual staffing rules governing "voluntary transfers" and "excessed teachers." Voluntary transfers are incumbent teachers who want to move between schools in a district, while excessed teachers are those cut from a specific school, often in response to declines in budget or student enrollment." "The New Teacher Project studied five representative urban districts (we identify them as the Eastern, Mid-Atlantic, Midwestern, Southern, and Western districts). Within each district, they extensively analyzed data for internal teacher movements and new teacher hires. They complemented our data analyses with principal surveys in the Eastern and Western districts, and interviews of school and central staff in all districts."	Results show: ▪ Urban schools are forced to hire large numbers of teachers they do not want and who may not be a good fit for the job and their school. ▪ Poor performers are passed around from school to school instead of being terminated. ▪ New teacher applicants, including the best, are lost to late hiring. ▪ Novice teachers are treated as expendable regardless of their contribution to their school. "These four effects significantly impede the efforts of urban schools to staff their classrooms effectively and sustain meaningful school-wide improvements. Ultimately, it is the students who lose the most as the transfer and excess rules place hundreds, and sometimes even thousands, of teachers in urban classrooms each year with little regard for the appropriateness of the match, the quality of the teacher, or the overall impact on schools. Perhaps most important, our data show that in the five studied districts, these rules negatively affect all schools regardless of poverty level, indicating the need for a systemic solution to this systemic problem."

Essential Condition 6: Principal's Staffing Authority

Liu, E., Rosenstein, J. G., Swan, A. E., & Khalil, D. (2008). When districts encounter teacher shortages: The challenges of recruiting and retaining mathematics teachers in urban districts. *Leadership and Policy in Schools, 7*(3), 296-323. http://www.gse.rutgers.edu/faculty/genFacultyProfileBiography~cguid~%7B16C916C9-2048-472E-B4E1 98B72F1F8C92%7D~ciid~fac_1081.asp	
Summary/Methods	**Findings/Recommendations**
"Policymakers, educational administrators, and the public at large all understand that the quality of the teaching force is essential to improving student achievement. Of particular concern is the challenge of staffing the nation's schools with qualified mathematics teachers—a group that is in short supply. The goal of this research study is to document and understand the nature of this staffing challenge and how central office and building administrators in urban districts are responding to it. This article presents preliminary findings from the initial phase of our study, in which we interviewed thirty administrators in six urban districts in the northeastern United States to find out the extent of their problems in recruiting and retaining new middle- and high-school teachers of mathematics, the approaches they have taken to address these problems, and what has resulted from the implementation of these approaches. In analyzing the interview data, we used contextual analysis to understand each district's experience of recruiting, retaining, and supporting new math teachers, as well as cross-case analysis to understand patterns and themes across the districts."	"Administrators interviewed explained that supply is tight, demand is high, and competition with other districts for the best math candidates is fierce. Virtually all complained about the overall quantity and quality of the pool of secondary mathematics candidates from which they had to choose. Policy factors, organizational factors, and administrators' own views of teacher quality and the unique characteristics urban teachers needed in order to be successful exacerbated the staffing challenge and affected how administrators responded to it: Together, these factors often: ▪ restricted district flexibility; ▪ made it difficult to hire early, when the pool was largest and of highest quality; ▪ reduced districts' competitiveness in terms of hiring teachers; ▪ reduced the number of candidates who were viewed as acceptable (i.e., the effective supply). "

Essential Condition 7. Professional Development and Structures for Collaboration: Professional development includes a) both job-embedded and individually pursued learning, including content-based learning, that enhances a teacher's knowledge and skills and b) structures for collaboration that enable teachers to have regular, frequent department and/or grade-level common planning and meeting time that is used to improve implementation of the curriculum and instructional practice.

Key Words:

Professional development, professional learning community, common planning time, instructional coaching

Organizations:

Center for Comprehensive School Reform and Improvement, Consortium for Policy Research in Education, National Staff Development Council, U.S. Department of Education Institute of Education Sciences

Limitations:

This summary includes publicly available documents, whenever possible, with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

Essential Condition 7: Professional Development and Structures for Collaboration

Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad.* Dallas, TX. National Staff Development Council.	
Summary/Methods	**Findings/Recommendations**
"The purpose of this report is to provide policymakers, researchers, and school leaders with a teacher-development research base that can lead to powerful professional learning, instructional improvement, and student learning." The report includes a summary of current research that "links teacher development to student learning", including examinations of the impact of traditional workshops, formal coursework, "professional learning community" approaches, coaching, and other content and context-based learning. Researchers also reviewed national studies from the OECD and TIMMS, as well as the U.S. Schools and Staffing Surveys from 1999-2000 and 2003-04.	Sustained and intensive professional development is related to student achievement. Effective professional development is intensive, ongoing, and connected to practice; focuses on the teaching and learning of specific academic content; is connected to other school initiatives; and builds strong working relationships among teachers. Teachers typically need close to 50 hours of professional development in a given area to improve their skills and student learning. Most professional development offered is much shorter. Collaborative approaches to professional learning can promote school change that extends beyond individual classrooms.

Essential Condition 7: Professional Development and Structures for Collaboration

Yoon, K. S., Duncan, T., Lee, S. W.-Y, Scarloss, B., & Shapley, K. (2007). *Reviewing the evidence on how teacher professional development affects student achievement* (Issues & Answers Report, REL 2007–No. 033). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest.
http://ies.ed.gov/ncee/edlabs

Summary/Methods	Findings/Recommendations
"This report reviews the research-based evidence on the effects of professional development on student achievement. The focus is on student achievement in three subjects: mathematics, science, and reading/language arts." Studies were gathered via an electronic search and nominations from 14 key researchers and subjected to a review protocol with criteria and parameters. Of 1300 studies gathered, 132 met all 5 criteria. Nine studies met evidence standards and were analyzed using the What Works Clearinghouse formulas for effect sizes and improvement indices.	"This report finds that teachers who receive substantial professional development—an average of 49 hours in the nine studies—can boost their students' achievement by about 21 percentile points." The three studies that involved the least amount of professional development (5-14 hours total) showed no statistically significant effects on student achievement.

Essential Condition 7: Professional Development and Structures for Collaboration

Garet, M. S. et al. (September 2008) *The impact of two professional development interventions on early reading instruction and achievement.* District of Columbia: National Center for Education Statistics, U.S. Department of Education, Institute of Education Sciences.
http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=NCEE20084034

Summary/Methods	Findings/Recommendations
"This report describes the effectiveness of two specific professional development strategies in improving the knowledge and practice of second-grade teachers in high-poverty schools and the reading achievement of their students." The measurement tools used in the study were seven standardized tests including CAT5, SAT9, Terra Nova CTBS, Gates-MacGintie, MAT8, Terra Nova CAT, and SAT10.	"An 8-day content-focused institute series and the institute series plus in-school coaching both produced positive impacts on teachers' knowledge of scientifically based reading instruction and on instructional practices introduced. However, neither intervention resulted in significantly higher student test scores at the end of one year." The addition of in-school coaching did not yield significantly greater impact on teacher practice than the institute series alone.

Essential Condition 7: Professional Development and Structures for Collaboration

Jacob, B. A. & Lefgren, L. (April 2002) *The impact of teacher training on student achievement: Quasi-experimental evidence from school reform efforts in Chicago.* National Bureau of Economic Research; NBER Working Paper No. 8916. (http://sitemaker.umich.edu/bajacob/files/training.pdf)	
Summary/Methods	**Findings/Recommendations**
Using data from Chicago public schools, this study estimates the effect of teacher training on the math and reading performance of elementary students. In a quasi-experimental research design, the authors measured the impact on math and reading scores on the Iowa Test of Basic Skills (ITBS), in terms of grade equivalents (GEs), which reflect the years and months of learning that a student has mastered.	"Marginal increases in in-service training have no statistically or academically significant effect on either reading or math achievement, suggesting that modest investments in staff development may not be sufficient to increase the achievement of elementary students in high-poverty schools."

Poglinco, S. M., Bach, A. J., Hovde, K., Rosenblum, S., Saunders, M, & Supovitz, J. A. (2003) *The heart of the matter: The coaching model in America's Choice Schools*. Philadelphia, PA: Consortium for Policy Research in Education.

Summary/Methods	Findings/Recommendations
"The purpose of CPRE's evaluation is to provide formative feedback to NCEE and America's Choice schools about emerging trends in the implementation of the design, and to seek evidence of the impacts of the design using accepted high standards of evaluation design and analysis methodologies." This study focuses on the role of coaching in America's Choice. It is based on qualitative and quantitative data, including teacher surveys, site visits, telephone interviews, documents reviews, and student performance measures such as state and local tests.	The study's literature review found that evidence on the effectiveness of coaching for increasing instructional quality is "in its incipient stages." In America's Choice, where each school has a full time coach, there is evidence of influence on the way educators in most schools think about teaching and learning. Other CPRE studies of America's Choice have found evidence of improved student learning.

Deussen, T., Coskie, T., Robinson, L., Autio, E. (June 2007). *"Coach" can mean many things: Five categories of literacy coaches.* District of Columbia: U. S. Department of Education Institute for Education Sciences. (http://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2007005.pdf)	
Summary/Methods	**Findings/Recommendations**
This report describes the backgrounds of educators who become coaches and "what coaches actually do once they are in a coaching position." Researchers administered surveys to teachers and literacy coaches in 203 Reading First schools in five western states. Data was obtained from 75-88% of teachers and 90% of coaches. Follow up interviews with 77 coaches and 300 teachers were conducted.	Most coaches were experienced teachers who were relatively inexperienced as coaches. The study identifies five categories of coaches: data-oriented, student-oriented, managerial, and two teacher-oriented (with individual teachers and with groups). A literature review reports mixed findings on the impact of coaching on teaching practice.

Moss, M., Fountain, A., Boulay, B., Horst, B., Rodger, C., Brown-Lyons, M. (October 2008). *Reading First implementation evaluation. Final Report.* District of Columbia: U.S. Department of Education, Office of Planning, Evaluation and Policy Development.
http://www.ed.gov/rschstat/eval/other/readingfirst-final/readingfirst-final.pdf

Summary/Methods	Findings/Recommendations
This Reading First program evaluation includes an extensive look at professional development for teachers in Reading First and other schools and a glimpse at the participation of reading coaches in professional development.	The authors argue that since Reading First recommends the use of coaches, "it is critical that coaches receive the support and training in the tenets of SBRI [Scientifically Based Reading Instruction], how to effectively guide and provide feedback to teachers, and how to model high-quality classroom teaching" (136). Reading coaches in non-Reading First schools most frequently reported professional development in topics of "planning instructional interventions, helping teachers identify appropriate instructional materials, using assessment data to form instructional groups, and classroom management."

Vescio, V., Ross, D., & Adams, A. (January 2006) *A review of research on professional learning communities: What do we know?* Paper presented at the National School Reform Faculty Research Forum. http://www.nsrfharmony.org/research.vescio_ross_adams.pdf	
Summary/Methods	**Findings/Recommendations**
This paper summarizes 10 empirical studies that have data on the impact of professional learning communities (PLCs) on teaching practices and improved student learning. Researchers found only 54 studies that met this criterion among articles published between 1990 and 2005.	The limited number of studies examined "clearly demonstrate that a learning community model can have positive impact on both teachers and students." The paper concludes that "The focus of a PLC should be developing teachers' 'knowledge of practice' around the issue of student learning."

Kruse, S., Seashore Louis, K., & Bryk, A. (1995). Teachers build professional communities. *WCER Highlights*. Madison WI: Wisconsin Center for Education Research. Spring 1995, Vol. 7, No. 1. http://www.wcer.wisc.edu/publications/highlights/v7n1.	
Summary/Methods	**Findings/Recommendations**
This report summarizes findings on teachers' experiences with their peers and their impact on work with students. It is based on data collected in schools that were part of larger studies conducted by the Center on Organization and Restructuring of Schools.	The authors identify both structural conditions (e.g., time to meet and talk, physical proximity) and social and human resources (e.g., openness to improvement, trust and respect) that are crucial to the "development of schools as healthy professionally sustaining environments in which teachers are encouraged to do their best job."

Steiner, L. & Kowal, J. (2007). *Issue brief – Instructional coaching: The Center for Comprehensive School Reform and Improvement.* http://www.centerforcsri.org/files/CenterIssueBriefSept07Coaching.pdf	
Summary/Methods	**Findings/Recommendations**
The article lists characteristics of successful coaches, which include pedagogical knowledge, content expertise, and interpersonal capabilities. It summarizes the literature on instructional coaching but not necessarily that on research studies.	"Training programs for coaches. . .should adhere to the common guidelines for effective professional development. It should be ongoing and provide opportunities for collaboration with other coaches. In surveys, coaches express a strong preference for collaborative forms of professional development, such as the training provided in Boston, over lecture-style training provided by outside experts. In terms of online seminars, coaches like best those that foster collaborative learning communities, such as questioning seminars and demonstration lessons.

Mertens, S. B. & Flowers, N. (September 2003). Middle school practices improve student achievement in high poverty schools. *Middle School Journal, 35*(1), 33-43.
(http://www.nmsa.org/portals/0/pdf/publications/On_Target/achievement/achievement_1.pdf)

Summary/Methods	Findings/Recommendations
"The purpose of this study is to establish a relationship between team and classroom practices, as assessed by the Center for Prevention Research and Development Self-Study, and student achievement. . . .The analyses. . .examine the relationships between interdisciplinary team practices, classroom practices, and student achievement, as measured by standardized test scores." The study is based on a survey of teachers, students, and administrators in 121 schools serving middle grade students in the Mid-South region in both the 1998-99 and the 2000-01 school years. In the latter academic year, more than 3,500 teachers participated in the Self-Study teacher survey. This regional sample of middle-grades schools is primarily located in rural communities with populations of fewer than 10,000 (57%), have a student population in which at least 40% receive a free or reduced-priced lunch (83%), and serve ethnically diverse communities.	"The impact of teaming/common planning time on team and classroom practices is positive. However the level of implementation as a single factor does not appear to affect student achievement in higher poverty schools. There are no significant differences in student achievement between schools that are teaming with high common planning time, low common planning time, or other/not teaming. In other words, the simple existence of teams and common planning time in a school does not guarantee a positive impact on student achievement, even though the team practices, and to a lesser degree the classroom practices, are more frequent in higher implemented schools. An implication of this finding is that teams need to sustain the use of effective classroom practices before we can expect to see a corresponding positive change in achievement."

Flowers, N., Mertens, S. B., & Mulhall, P. F. (November 1999). The impact of teaming: Five research-based outcomes. *Middle School Journal (31)*2,51-60.

Summary/Methods	Findings/Recommendations
This is a summary of findings from a study of 155 middle schools in the Michigan Middle Start Initiative. "These schools participated in the School Improvement Self-Study, a set of surveys completed by staff, students, and administrators during 1994-95 and again in 1996-97 (Mertens, Flowers, and Mulhall, 1998). The Self-Study, conducted by the Center for Prevention Research and Development at the University of Illinois, is a data collection system that is intended to be used by schools in conjunction with their existing school improvement plans. The Self-Study provides schools with quantitative data to document and track the changes in their schools. . .and most importantly, assessing and measuring the outcomes of new programs and practices."	The five findings of the study are: ▪ Common planning time makes a big difference: "For interdisciplinary teams to be effective, they need regular time to plan and work together as a group." ▪ Teaming improves work climate. ▪ Teaming increases parental contact. ▪ Teaming increases job satisfaction. ▪ Teaming is associated with higher student achievement.

L Lewis, L., Parsad, B., Carey, N, & Bartfai, E. (January 1999). *Teacher quality: A report on the preparation and qualifications of public school teachers*. Washington, DC: National Center for Education Statistics, Institute of Education Science.
http://nces.ed.gov/surveys/frss/publications/1999080/index.asp?sectionid=6

Summary/Methods	Findings/Recommendations
This report is based on a large-scale Fast Response Survey on professional development and training administered to a representative sample of American teachers in 1998. Completed questionnaires were received from 3,560 teachers, or 92 percent of the eligible teachers in grades 1 through 12.	"Teacher collaboration was identified as a second major mechanism of on-the-job learning. . . .Teachers who engaged in common planning periods for team teaching were more likely than those who did not participate in the activity to report that they felt very well prepared to implement new teaching methods, implement state and district curriculum and performance standards, use student performance assessment techniques, maintain order and discipline, and address the needs of students with disabilities. Similarly, teachers who participated in regularly scheduled collaboration with other teachers felt better prepared than their peers to implement new teaching methods, implement state or district curriculum and performance standards, use student performance techniques, and address the needs of students with disabilities."

Essential Condition #7: Professional Development and Structures for Collaboration

Leonard, L. & Leonard, P. (2003, September 17). The continuing trouble with collaboration: Teachers talk. *Current Issues in Education*[On-Line], 6(15). http://cie.ed.asu.edu/volume6/number15/

Summary/Methods	Findings/Recommendations
This paper draws on data from a follow-up survey addressing aspects of professional collaboration in North Louisiana schools. The questionnaire addressed teachers' *beliefs* about collaborative practice compared to what they perceived as *actual* collaborative conditions and circumstances in their schools. Of the 238 teachers who completed the initial questionnaire, 56 teachers from 45 schools in eight districts returned a second follow-up questionnaire. Teachers represented elementary, middle, and high schools, and school enrollment size ranged from 168 to approximately 2,000 students. Teacher experience ranged from 3 years to 34 years.	"The institutionalization of collaborative working environments is widely considered to be critical to the creation and maintenance of schools as professional learning communities. Prevailing thought suggests that improved student performance may be fully realized only when teachers routinely function as teams and abandon their traditional norms of isolationism and individualism. This interpretive study involving teachers in 45 North Louisiana schools suggests that while some schools and school districts are indeed characterized by elements of the 'learning community,' others remain largely mired in customary practices that are counterproductive to realizing the newer collaborative standards. Participating teachers report that, despite the rhetoric, major impediments to joint professional work remain, and they make suggestions for better meeting the continuing collaborative challenge."

Essential Condition 8. Tiered Instruction and Adequate Learning Time : The district has an effective system for identifying all students who are not performing at grade level. Each school schedule is designed to provide adequate learning time for all students in core subjects; for students not yet achieving at grade level in English language arts and mathematics, the district ensures that each school provides a) at least 90 minutes per academic day of instruction in English language arts and in mathematics and a tiered model of instruction and individualized support in those subject areas; and b) appropriate supplemental instruction (for example: homework assistance, tutoring, Saturday school, summer school).

Key Words/Phrases:

Adequate learning time, allocated school (class) time, instructional time, academic learning time

Organizations:

Mass 20/20, National Center on Time and Learning, National Education Commission on Time and Learning, The Center for Comprehensive School Reform and Improvement, Consortium on Chicago School Research.

Limitations:

This summary includes publicly available documents, whenever possible, with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

Silva, E. (2007). *On the clock: Rethinking the ways schools use time*. Washington DC: Education Sector. www.educationsector.org/usr_doc/OntheClock.pdf	
Summary/Methods	**Findings/Recommendations**
"This report examines both the educational and political dimensions of time reform. It presents the findings of a wide range of research on time reform, discusses the impact of various time reforms on the life of schools and beyond, and makes recommendations for policymakers about how to best leverage time in and out of school to improve student achievement." The document includes a literature review of relevant research.	"Most schools that have extended time have not done so in isolation but as part of a larger reform effort. So it is difficult to isolate the effects of extending the school day or school year on student achievement. There has never been a controlled or longitudinal experiment that specifically measures the effect of extending time on student learning. But past studies on time and learning offer some insight. . . .As would be expected, the research shows that the correlation between time and student achievement gets stronger with more engaged time. Students who are given more allocated school time have outcomes only slightly better than students who receive less. But the correlation between time and achievement increases when students are given more instructional time, and it is even greater when students' academic learning time increases."

Aronson, J., Zimmerman, J., & Carlos, L. (1998). *Improving student achievement by extending school: Is it just a matter of time?* San Francisco, CA: WestEd. www.wested.org/online_pubs/po-98-02.pdf

Summary/Methods	Findings/Recommendations
This document is a literature review/research brief on the relationship between student achievement and different usages of extended time. "The majority of studies dealing with the relationship of education time to student achievement look at allocated time (which refers to the total number of days or hours students are required to attend school), while other studies focus on engaged time (that subset of instructional time when students are participating in learning activities) or academic learning time (that precise period when an instructional activity is perfectly aligned with a student's readiness and learning occurs). In some cases, the time variable being studied is not clearly specified. This inconsistency can make it difficult or misleading to compare studies.	The impact of time on student achievement depends on how time is used as an additional resource. The variability in the usage of time "also helps explain why, looking at the entire body of research on time and learning, there appear to be mixed findings about the degree to which time influences student learning. However, despite this variability, the literature reveals a fairly consistent pattern: • There is little or no relationship between *allocated time* and student achievement. • There is some relationship between *engaged time* and achievement. • There is a larger relationship between *academic learning time* and achievement. In short, time *does* matter. How much or little it matters, however, depends greatly on the degree to which it is devoted to appropriate instruction."

Essential Condition 8: Professional Development and Structures for Collaboration

Gabrieli, C. & Goldstein, W. (2009). *Expanding school time to expand school learning: Lessons learned and challenges remaining*. Policy Perspective. San Francisco, CA: WestEd.
http://www.wested.org/online_pubs/pp-09-01.pdf.
See also: Gabrieli, C. (2008). *Time to learn: How a new school schedule is making smarter kids, happier parents, and safer neighborhoods*. San Francisco, CA: Jossey-Bass.

Summary/Methods	Findings/Recommendations
"In this WestEd Policy Perspectives paper, we highlight a dozen design principles we believe should be part of future new day schools. Our conclusions are based on our direct experience in helping create such schools, our visits to schools, our review of the available data, and our best judgment. They are certainly worthy of debate and are not meant to be final, comprehensive, or exhaustive. Our intent is to encourage more people to seek change and to help those who want to make the new school day work." Analyses, findings, and recommendations are drawn from Gabrieli's 2008 book, *Time to Learn*.	"Emerging patterns allow us to recommend 12 features as key elements of strong designs for new day schools: 1. Voluntary participation for schools; 2. Mandatory participation for all students; 3. Whole-school redesign; 4. Significantly expanded time; 5. Clear academic focus; 6. Well-rounded education; 7. Data-driven continuous quality improvement; 8. Time for teacher collaboration, planning, and professional development; 9. Individualization; 10. Time for up-front planning; 11. Partnerships with outside resources; 12. Starting with individual schools, building for scale." "Most experience with new day schools has come in urban schools with predominantly at-risk children from lower-income families. We argue here that the best proof of success comes from the schools that have voluntarily pursued the new school day, both the charter and experimental district schools and the Massachusetts Expanded Learning Time schools. We know far less about how well it works in several other settings."

Essential Condition 8: Professional Development and Structures for Collaboration

Farbman, D. & Kaplan, C. (2005). *Time for a change: The promise of extended-time schools for promoting student achievement*. Boston, MA: Massachusetts 2020.
www.mass2020.org/files/file/Time-for-a-change(1).pdf.

Summary/Methods	Findings/Recommendations
"This report details the work of a handful of "extended-time schools" and describes and analyzes their effective practices. This study is not intended to suggest that extended-time schools automatically produce better results. Neither is it meant to prove that simply by extending time alone, schools will offer a superior educational product. Rather, this research was conducted to understand how these particular schools, which have already demonstrated themselves to be effective, capitalize on the additional time, and what benefits the schools' educators perceive the additional time delivers. It is hoped that their examples are both inspirational and informational for those who seek to operate schools that purposely break from the conventional schedule in order to bring all their students to proficiency." The work reported on involves classroom observations and interviews with school leaders.	"Students at the extended-time schools profiled for this report generally out-perform students of comparable socioeconomic status at traditional public schools in their district." "School leaders and policymakers who are considering adopting a longer school day are eager to understand how additional time translates into higher academic achievement. The extended-time schools examined through this research provide important answers to this central question. Classroom observations, and interview with school leaders and teachers, revealed five key ways that additional time, if structured effectively, can promote student learning and achievement: 1. Increased 'time on task.' 2. Broader and deeper coverage of curriculum 3. More opportunities for experiential learning. 4. Greater ability to work with diverse ability levels simultaneously. 5. Deepened adult-child relationships."

Additional Resources

Smith, B. (1998). *It's about time: Opportunities to learn in Chicago's elementary schools.* Chicago, IL*:* Consortium on Chicago School Research. cccsr.uchicago.edu/publications/p0f03.pdf

Essential Condition 9. Students' Social, Emotional, and Health Needs: Each school addresses the social, emotional, and health needs of its students by creating a safe school environment in which student needs are met in systemic and systematic ways, including through a) the provision of coordinated student support services and universal breakfast (if eligible); b) the implementation of a systems approach to establishing a productive social culture that minimizes problem behavior for all students (e.g. Positive Behavior Intervention and Supports); and c) the use of consistent schoolwide attendance and discipline practices and effective classroom management techniques that enable students to assume increasing responsibility for their own behavior and learning.

Key Words:

Social emotional learning, health, nutrition, student support

Organizations:

Collaborative for Academic, Social, and Emotional Learning; Association for Supervision and Curriculum Development; Centers for Disease Control and Prevention Division of Nutrition, Physical Activity and Obesity; National School Boards Association (NSBA)

Limitations:

This summary includes publicly available documents with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

Essential Condition 9: Students' Social, Emotional, and Health Needs

Payton, J., Weissberg, R.P., Durlak, J.A., Dymnicki, A.B., Taylor, R.D., Schellinger, K.B., & Pachan, M. (2008). *The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews.* Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.	
Summary/Methods	**Findings/Recommendations**
"This report summarizes results from three large-scale reviews of research on the impact of social and emotional learning (SEL) programs on elementary and middle-school students—that is, programs that seek to promote various social and emotional skills. Collectively the three reviews included 317 studies and involved 324,303 children."	"SEL programs. . .were effective across the K-8 grade range and for racially and ethnically diverse students from urban, rural, and suburban settings. SEL programs improved students' social-emotional skills, attitudes about self and others, connection to school, positive social behavior, and academic performance; they also reduced students' conduct problems and emotional distress. . . .SEL programs are among the most successful youth-development programs offered to school-age youth. Furthermore, school staff (e.g., teachers, student support staff) carried out SEL programs effectively, indicating that they can be incorporated into routine educational practice. In addition, SEL programming improved students' achievement test scores by 11 to 17 percentile points, indicating that they offer students a practical educational benefit."

Essential Condition 9: Students' Social, Emotional, and Health Needs

Durlak, J. A. & Weissberg, R. P. (2007). *The impact of after-school programs that promote personal and social skills*. Chicago, IL:Collaborative for Academic, Social, and Emotional Learning.	
Summary and Methods	**Findings/Recommendations**
A meta-analysis of 73 studies of after-school programs that examined effects of the program on children and that included a control group. The researchers only "considered after-school programs that attempted to promote personal and social skills."	"The two most important findings were: ▪ Youth who participate in after-school programs improve significantly in three major areas: feelings and attitudes, indicators of behavioral adjustment, and school performance. ▪ It was possible to identify effective programs: Programs that used evidence-based skill training approaches were consistently successful in producing multiple benefits for youth, while those that did not use such procedures were not successful in any outcome area."

Linares, L. O., Rosbruch, N., Stern, M. B., Edwards, M. E., Walker, G., Abikoff, B., & Alvir, J. (2005). Developing cognitive-social-emotional competencies to enhance academic learning. *Psychology in the Schools*, *(42)*4, 405–417.	
Summary/Methods	**Findings/Recommendations**
This preliminary study examined intervention effects of a universal prevention program offered by classroom teachers to public elementary school students. The Unique Minds School Program (M.B. Stern, 1999) is a teacher-led program designed to promote cognitive-social-emotional (CSE) skills, including student self-efficacy, problem solving, social-emotional competence, and a positive classroom climate, with the dual goal of preventing youth behavioral problems and promoting academic learning. During 2 consecutive school years, 119 students and their teachers were assessed in the fall and spring of Grade 4 and again in the spring of Grade 5.	As compared to students in the comparison school, students in the intervention showed gains in student self-efficacy, problem solving, social-emotional competencies, and math grades. Incremental gains within CSE domains were found after 1 and 2 years of intervention.

Essential Condition 9: Students' Social, Emotional, and Health Needs

Bailey, R. (2006). Physical education and sport in schools: A review of benefits and outcomes. *Journal of School Health*. 76(8), pp. 397-401.	
Summary/Methods	**Findings/Recommendations**
This paper explores the scientific evidence that has been gathered on the contributions and benefits of physical education and sport (PES) in schools for both children and for educational systems. Research evidence is presented in terms of children's development in a number of domains: physical, lifestyle, affective, social, and cognitive.	The review suggests that PES have the potential to make significant and distinctive contributions to development in each of these domains. It is suggested that PES have the potential to make distinctive contributions to the development of children's fundamental movement skills and physical competences, which are necessary precursors of participation in later lifestyle and sporting physical activities. They also, when appropriately presented, can support the development of social skills and social behaviors, self-esteem and pro-school attitudes, and, in certain circumstances, academic and cognitive development. The review also stresses that many of these benefits will not necessarily result from participation, per se; the effects are likely to be mediated by the nature of the interactions between students and their teachers, parents, and coaches who work with them. Contexts that emphasize positive experiences, characterized by enjoyment, diversity, and the engagement of all, and that are managed by committed and trained teachers and coaches, and supportive and informed parents, significantly influence the character of these physical activities and increase the likelihood of realizing the potential benefits of participation.

Taras, H. (2005). Physical activity and student performance at school. *Journal of School Health*, *75*(6), 214	
Summary/Methods	**Findings/Recommendations**
The author reviewed published studies on the association between physical activity among school-aged children and academic outcomes. A table includes brief descriptions of each study's research methodology and outcomes.	A review of the research demonstrates that there may be some short-term improvements of physical activity (such as on concentration) but that long-term improvement of academic achievement as a result of more vigorous physical activity is not well substantiated. The relationship between physical activity in children and academic outcomes requires further elucidation.

Other Resources

Zins, J., Weissberg, R., Wang, M. and Walberg, H.J., Editors (2004). *Building Academic Success on Social and Emotional Learning: What Does the Research Say?* New York: Teachers College Press

Nationally recognized leaders in education and psychology examine the relationships between social-emotional education and school success—specifically focusing on interventions that enhance student learning.

Collaborative for Academic, Social, and Emotional Learning (www.casel.org)

See *Benefits of SEL and Academics*, *SEL and Academics Research Brief*, and *SEL: what is it and how does it contribute to students' academic success?*

Essential Condition 10. Family-School Relationships: The district ensures that each school develops strong working relationships with families and appropriate community partners and providers in order to support students' academic progress and social and emotional well-being

Key Words:

Parent involvement, family involvement, school-family relationships, family involvement and academic achievement

Organizations:

Harvard Family Research Project; National Coalition for Parent Involvement in Education; Parent Information Centers; The Parent Institute; Johns Hopkins University, Center on School, Family, and Community Partnership; Southwest Education Development Laboratory (SEDL); National Center for Family and Community Connections with Schools.

Limitations:

This summary includes publicly available documents, with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

REL Northeast and Islands

This document was prepared by the Regional Educational Laboratory for the Northeast and Islands (REL-NEI) under a contract with the U.S. Department of Education's Institute of Education Sciences (IES), Contract ED-06-CO-0025, in response to a request by the Massachusetts Department of Elementary and Secondary Education. The contents of this document have not been reviewed by and do not necessarily reflect the views of the U.S. Department of Education.

Essential Condition 10: Family-School Relationships

Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: Southwest Educational Development Laboratory. http://www.sedl.org/connections/resources/evidence.pdf	
Summary/Methods	**Findings/Recommendations**
This publication examines parent and community involvement and its impact on student achievement. It is the fourth in a series of Evidence publications authored or co-authored by Anne Henderson. It is also the second in the series of publications by the Southwest Educational Development Laboratory's (SEDL) National Center for Family and Community Connection with Schools. SEDL staff identified about 80 research studies and literature reviews focused on the influence of family and community involvement on student academic achievement and other outcomes. In addition, they searched major databases such as the Educational Resources Information Center (ERIC) and Education Abstracts and asked colleagues for recommendations. All studies were reviewed to make sure they had sound methodology, that study findings matched the data collected, and that conclusions were consistent with the findings.	This study found that children do better in school when their parents talk to them about school, expect them to do well, help them plan for college, and make sure that out-of-school activities are constructive. Findings included: ▪ When schools engage families in supporting children's learning, students make greater gains. ▪ When schools respond to families' concerns and honor their contributions, they are successful in sustaining connections that are aimed at improving student achievement. ▪ When families and communities organize to hold poorly performing schools accountable, studies suggest that school districts make positive changes in policy, practice, and resources.

Coleman, A., Starzynski, A., Winnick, S., Palmer, S., Furr, J. (2006). *It takes a parent: Transforming education in the wake of the No Child Left Behind act: Recommendations regarding the role of parents and guardians in achieving student and school success.* Washington, DC: Appleseed. http://www.educationalcounsel.com/resources/files/It%20Takes%20a%20Parent.pdf

Summary/Methods	Findings/Recommendations
This report documents an effort to combine practical, on-the-ground perspectives with current social science research on key parental involvement issues and effective practices. Its purpose is to assemble and analyze what is known as a matter of practice and as a matter of research in framing an action agenda promoting more effective parental involvement practices by schools, districts, and states. The appendix of the report contains a section on model policies and notices that is meant to serve as a resource for districts and schools. The report represents extensive qualitative research. During 9 months, more than 100 school, district, and state leaders and teachers were interviewed in 6 states and 18 school districts. A total of 27 focus groups of parents were convened over a 6-month period in 2006. Researchers also interviewed 47 representatives from community-based organizations that provide support for parents and schools.	Findings of the study included: ▪ States, districts, and schools must provide meaningful, timely, and understandable information to parents about key school and student data. ▪ Educators should use multiple, proactive strategies to connect with parents, especially low-income and ELL parents. ▪ Educators should partner with community organizations. ▪ Educators need to fund more comprehensive professional development for teachers and administrators, with emphasis on culture and language. ▪ Policymakers and educators should recognize parental involvement as central to school improvement.

Essential Condition 10: Family-School Relationships

Hernandez, L., Kreider, H., Coffman, J., & Lopez, M. E. **(**2002*). Concepts and models of family involvement .* Cambridge MA: Harvard Family Research Project	
Summary/Methods	**Findings/Recommendations**
This report identifies four approaches to family involvement in a student's education—parenting practices, school-family partnerships, democratic participation, and school choice. The document provides case studies on democratic participation in the Right Question Project, the National Coalition of Advocates for Students, and the Prichard Committee for Academic Excellence.	Family involvement with students in the home and school makes an enormous difference in student achievement and healthy development. When schools provide information, encouragement, and opportunities for partnership, parental involvement increases. The cases in this report focus on capacity-building across a range of functions, including outreach, leadership development, research and program development, and evaluation.

Nye, C., Turner, H. M., & Schwartz, J. B. (2006). *Approaches to parental involvement for improving the academic performance of elementary school children in grades K-6.* London: The Campbell Collaboration. Available online at http://campbellcollaboration.org/doc-pdf/Nye_PI_Review.pdf	
Summary/Methods	**Findings/Recommendations**
Drawing from 19 research studies that included data on parent engagement in academic support activities with their child and that had control or comparison groups, this meta-analysis summarized the most dependable evidence on the effect of parental involvement intervention programs for improving the academic performance of elementary-school-age children.	Findings and recommendations of the analysis include: ▪ Parental involvement, defined as parents engaging theirh children in activities to enhance academic performance, has a significant positive effect on children's overall academic achievement. This finding is particularly compelling considering that the median intervention lasted less than 2 months. ▪ The academic area most positively affected by parent involvement activities was reading. ▪ The types of parent involvement activities that had the greatest impact were rewards and incentives and educations and training. Rewards and incentives were used with fourth and fifth graders. Education and training programs that provided the parents with skills, activities, and materials to work with their children on academic skills outside of school were implemented with first and second graders.

Essential Condition 10: Family-School Relationships

National Center for Family and Community Connections with Schools, Southwest Educational Development Laboratory. (2004). *Learning outside of the school classroom: What teachers can do to involve family in supporting classroom instruction.* Austin, TX: Southwest Educational Development Laboratory.	
Summary/Methods	**Findings/Recommendations**
This paper examines how teachers can draw upon family and community resources to provide students with the individualized instruction they need. A Strategy Brief that draws on research is cited in an appendix.	The authors conclude that to support classroom instruction, family and community involvement programs should be designed to do the following: ▪ Link with student achievement goals and standards. ▪ Engage families in activities that focus directly on student learning. ▪ Keep family members informed about what is happening in the classroom. ▪ Build a school culture that is inclusive and supportive of family and community involvement. Specific strategies are recommended, including: ▪ Engaging parents in role-playing ways to reinforce classroom learning at home. ▪ Involving family members and students in math and reading games at family nights. ▪ Creating learning kits that can be lent to students for home use.

Essential Condition 10: Family-School Relationships

Harvard Family Research Project. (2006). *Family involvement makes a difference in school success*. Cambridge, MA: Author.	
Summary/Methods	**Findings/Recommendations**
According to this report, "the evidence is clear: Family involvement helps children get ready to enter school, promotes their school success, and prepares youth for college. This Research Brief presents findings from HFRP's ongoing, in-depth review of research and evaluated programs that link family involvement in children's education to student outcomes." The brief summarizes and provides citations for numerous studies from 2001-2005. It was produced for release at the Raising Student Achievement, 2006, National PTA Legislative Conference. Each section of the report presents findings from research and describes an evaluated program.	Findings are organized into the following sections: ▪ Family involvement helps children get ready to enter school. ▪ Family involvement promotes elementary-school children's success. ▪ Family involvement prepares youth for college. ▪ Family involvement supports all children, especially those less likely to succeed in school.

Essential Condition 10: Family-School Relationships

Caspe, M., Lopez, M. E., & Wolos, C. (Winter 2006/2007). *Family involvement in elementary school children's education*. Cambridge, MA: Harvard Family Research Project. www.gse.harvard.edu/hfrp	
Summary/Methods	**Findings/Recommendations**
The research brief summarizes the latest evidence base on effective involvement—specifically, the research studies that link family involvement during the elementary school years to outcomes and programs that have been evaluated to show what works. The report synthesizes the outcome-based empirical research published from 1999-2006 catalogues in the Family Involvement Network of Educators' bibliographies. Outcome-based investigations were defined as those that measured family involvement and then linked family involvement to outcomes considered representative of young children's positive growth and development.	The paper summarizes family involvement processes in elementary school into three areas—parenting, home-school relationships, and responsibility for learning—citing research in each area. Implications of the studies for policy, practice, and further research are presented, as are brief descriptions of successful programs.

Essential Condition 10: Family-School Relationships

Epstein, J. (2005). *Developing and sustaining research-based programs of school, family, and community partnerships: Summary of fivr years of NNPS research.* Baltimore, MD: Johns Hopkins University, Center on School, Family, and Community Partnerships.	
Summary/Methods	**Findings/Recommendations**
This research paper summarizes 5 years of studies on ways to improve partnership program development and how family and community involvement contribute to student achievement and other indicators of success in school. Researchers with the National Network of Partnership Schools (NNPS) conducted studies between 2001 and 2006 based on annual *UPDATE* surveys that are required from all NNPS members. Other studies are based on NNPS *Focus on Results* studies and on national data sets. These include data from over 1,000 schools, 100 districts, and 17 state departments of education working with NNPS to use research based approaches to establish and strengthen school, family, and community partnerships.	Researchers identified eight essential elements for effective programs in areas such as leadership, planning, outreach, and evaluation. They also found that effective programs yield positive results in student achievement and success in school, with outcomes in higher achievement, better attendance, fewer disciplinary actions, and completion of homework.

Essential Con dition 11. Strategic Use of Resources and Adequate Budget Authority: District and school plans are coordinated to provide integrated use of internal and external resources (human, financial, community and other) to achieve each school's mission.

Key Words/Phrases:

District resource allocation, budget authority, school-based management

Organizations:

The Annenberg Institute for School Reform, Center for Comprehensive School Reform Improvement, Brookings Institution, The Southwest Educational Development Laboratory (SEDL)

Limitations:

This summary includes publicly available documents, whenever possible, with an emphasis on research summaries, syntheses, and meta-analyses, as well as major studies that link the indicator with student achievement. It was prepared in a limited amount of time in a specific time period in response to a request and should not be considered exhaustive.

Siegel, D. E. & Fruchter, N. (2002). *Implementation study of performance driven budgeting in the New York City Public Schools*. New York University, NY: Institute for Education and Social Policy. http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1a/5c/d3.pdf	
Summary/Methods	**Findings/Recommendations**
"School-based planning for instructional improvement has been a major national education reform focus for over 2 decades. However, many efforts proposed to put schools in charge of their own instructional operations delivered only increased discretion rather than real autonomy over internal operations, such as budgeting. In 1997, New York City introduced the Performance-Driven Budgeting (PDB) initiative to link school-based budgeting with efforts to improve student and school performance. This paper is a condensation of the final report on the PDB implementation study. Data were collected from (1) interviews with senior staff at the central administration, the school district, and the case-study schools; (2) document reviews; and (3) surveys of school-planning team members."	"After 3 years of study, it was concluded that the central administration transferred primary authority for planning and budgeting to the schools. The initiative produced a new budgeting system in which school-level decision-making is driving change upward through district and central-administration levels. The impact of PDB included a small but significant increase in elementary student test scores compared with non-PDB schools. Current economic problems and political hostility are factors that can affect PDB adversely, especially in low-performing schools. "

Essential Condition 11: Strategic Use of Resources and Adequate Budget Authority

Hadderman, M. (1999). *School-based budgeting.* Eugene, OR: ERIC Clearinghouse on Educational Management, *131.* http://www.ericdigests.org/2000-2/budgeting.htm	
Summary/Methods	**Findings/Recommendations**
"This digest discusses a contemporary rationale for decentralizing fiscal decisions through school-based budgeting (SBB). It comments on procedural, legal, and equity considerations; reviews several studies of SBB implementation in urban districts; and identifies emerging policy and research directions. The rationale behind SBB includes the finding that decentralizing four key resources (power, information, knowledge, and rewards) can enhance organizational effectiveness and productivity. Some of the implementations and obstacles to SBB include the time involved, fairness issues, and the need to enhance equity among schools."	"Recent studies paint a complex picture of SBB's promise and pitfalls. Some districts had a 'broadened definition' of SBB and a high-involvement orientation, and some power was decentralized, but district and state constraints allowed schools little discretionary authority. However, a study of Chicago Public Schools showed that they achieved at least one reform goal—the reallocating of funds to reduce administrative bureaucracy and equalize interschool finance. Even so, other studies demonstrated that SBB provided no impetus for schools to do business differently and equity remained a problem. The digest suggests that clarity is needed about SBB's purpose and goal, and it cautions that only a weak link between SBB and school-based management has been found."

Essential Condition 11: Strategic Use of Resources and Adequate Budget Authority

Chubb, J. E. & Moe, T. M. (1990). *Politics, markets, and America's schools*. Washington DC: Brookings Institution.	
Summary/Methods	**Findings/Recommendations**
"The effect of institutions on school effectiveness is explored in this book, which argues that school reforms in the United States are destined to fail because of the failure to address the root of the problem, which is found in the institutions of direct democratic control by which schools have traditionally been governed. Methodology involved analysis of two data sets: the High School and Beyond (HSB) survey conducted in 1980 and 1982 and the Administrator and Teacher Survey (ATS) conducted in 1984. The HSB survey elicited responses from 30,030 sophomores in 1980 and 28,240 seniors in 1982 from 532 public and private schools. The ATS survey was administered to 10,370 teachers and 402 principals in a subsample of 402 HBS schools, eliciting response rates of 86 and 76 percent, respectively."	"Findings indicate that schools with effective organizational characteristics perform better; that school autonomy is the most important prerequisite for school effectiveness; and that the existing public education system inhibits the emergence of effective organizations and stifles student achievement. A recommendation is made to implement a new system based on parent/student choice and school competition to promote school autonomy. Six chapters discuss the root of the problem, an institutional perspective on schools, effective school organization, causes of student achievement, institutional context and school organization, and school choice. Notes accompany each chapter. Appendices contain data from the two surveys, measures and indicators, special issues in modeling student achievement, and achievement and organization in public schools."

Essential Condition 11: Strategic Use of Resources and Adequate Budget Authority

Miles, K. H. & Frank, S. (2008). The strategic school: Making the most of people, time, and money. *Reston, VA: National Association of Secondary Principals.* *See also Miles, K. H. (2000).* Rethinking school resources*. Arlington, VA: New American Schools.* *www.educationresourcestrategies.org/documents/rethinking-resources.pdf*	
Summary/Methods	**Findings/Recommendations**
"The purpose of this book is to provide school leaders and the administrators who support them with a deep understanding of how strategic schools leverage their available people, time, and money to impact student achievement. We share both our research—extensive reviews of the literature, in-depth case studies, and district analysis—and our experience in partnering with urban schools and districts across the country to give readers both the academic and practical support they need to make strategic decisions in their own schools." The study included case studies of 20 schools: "We collected data through visits and interviews and by gathering and reviewing detailed budgets, improvement plans, and the course schedules from each school."	"A large body of quantitative research explores the importance of specific inputs such as teacher education levels, experience, and class size. This research clearly suggests that the way schools organize resources matters." "In analyzing our case study data, we searched for patterns of resource use across schools and found that despite difference in school level, size, location, student population, or even instructional focus, high-performing schools used their resources in very consistent ways. Although their specific strategies varied to reflect differences in context, instructional approach, or staff, each school organized its resources around three guiding resource strategies. Specifically, strategic schools organize and use resources to: ▪ Invest in order to continuously improve teaching quality through hiring, professional development, job structure, and common planning time; ▪ Create individual attention and personal learning environments; and ▪ Use student time strategically by emphasizing core academics and literacy."

Essential Condition 11: Strategic Use of Resources and Adequate Budget Authority

Fisher, S. C. & Balch-Gonzalez, M. (Eds) (2008). *Moving toward equity in school funding within districts.* School communities that work: A national task force on the future of urban districts. Retrieved from The Annenberg Institute for School Reform at Brown University.
http://www.annenberginstitute.org/pdf/Towards_Equity.pdf

Summary/Methods	Findings/Recommendations
"As part of the work on alternative school-funding mechanisms undertaken by the School Communities that Work task force, we analyzed differences in spending across schools and students within three urban districts—Cincinnati, Seattle, and Houston. We also explored the impact of a nearly universal budgeting policy among school districts—basing per school allocations on average teacher salaries." "All three of the districts we chose had recently adopted student-based budgeting policies, enabling us to examine financial data after the new budgeting policies were implemented and to explore the changes that this strategy brought about."	"Our analysis demonstrated that traditional "staff-based" budgeting practices had created substantial inequities among schools in each district." "What we Learned about the impact of student-based budgeting: ▪ Greater equity comes gradually, even during the implementation of the new formula. o Districts used non-formula dollars to supplement formula funds in some schools, sometimes for several years. o Districts limited how many resources they dedicated to the formula. Non-formula dollars were less equitable. o Districts chose formulas initially that reflected their old distributions to mitigate the immediate impact on all schools. ▪ Not all weightings were related to equity; some were strategic decisions to concentrate more resources, such as making a strategic investment in the middle grades. ▪ With student-based formulas, investments are clear and intentional and can be deliberately modified from year to year."