

# Data-Driven Decision Making: Vision to Know and Do



## Backgrounder Brief

**Data-driven decision making:** a process of making choices based on appropriate analysis of relevant information.

Collecting student achievement data is nothing new in our schools. But for all of the data gathered, many schools remain information poor. Educators are challenged to understand how to best use data as a tool to accelerate student learning, and school leaders today seek data far beyond that of tests alone.

Data-driven decision making—or as it is often called, DDDM or D3M—is referenced in nearly all educational reform and accountability discussions. This drive to gather meaningful, usable data has been compounded by accountability requirements set forth under the *No Child Left Behind Act (NCLB)*, which calls for increased accountability, data collection and analysis and more rigorous reporting requirements.

The goal school leaders like yourself share is to obtain more comprehensive data that can be accessed incrementally—anytime, anywhere—so teachers and parents can intervene before students fall behind. A related goal is to find ever better ways to share relevant data with all

stakeholders so that everyone in the school community is working toward a common goal: *improving educational outcomes for all students.*

But, with these demands placed on schools come new opportunities. Sophisticated data collection and dissemination technologies combined with a better understanding of how children learn is transforming education. A number of districts are already going beyond the mandates of *NCLB* and using data to inform decisions about everything from class schedules to textbook reading levels to professional development budgets. Information that tells leaders what works in helping students learn provides a rationale for decisions that parents, teachers, taxpayers and students can understand.

### Process Improvement and Organizational Transformation

Over the last decade, many business and government agencies have used data to inform decision making and shifted from information management—an emphasis on



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the technology infrastructure used to collect and manage data—to knowledge management—integrating data and information into the daily activities of decision makers.

Educational institutions too have begun to apply the strategies and approaches of knowledge management to their practice. New assessments aligned with goals provide students, teachers and schools with immediate feedback to adjust practice rather than deny service. Students begin with clear, standards-based goals and a learning plan to achieve mastery. They receive instruction with emphasis on their learning style and needs.

A number of our nation's schools are successfully transforming their organizations to support learning for *all* students and accountability to the community. They serve as instructive models to demonstrate that data-driven decision making can be a powerful tool for continuous improvement and for changing student outcomes, classroom practices, professional development, administrative spending, community support and student enrollment.

## Making It Happen in Your District

The successful integration of data into a district's decision-making process requires both a culture of change and a data management system to support change. As schools seek to become learning organizations—those that choose to learn about themselves in order to constantly improve—it is critical that district leaders establish a climate of acceptance based on shared responsibility for change. A learning organization identifies successful practice to encourage its spread and seeks out the root cause of poor performance in order to improve. School boards, superintendents and principals set goals and manage expectations. Administrators, site specialists and teachers have permission to ask questions, make mistakes, share them and learn from them.

Most districts that have implemented data-driven decision making systems estimate that they spend at least one year planning the system and developing community support for it. This is time well spent. Rather than focusing initially on the technology or tool set needed or vendor to partner

with, start your planning with what outcomes you want to achieve. Depending on your district's level of sophistication with planning, this may mean that a strategic planning and improvement process has to happen *before* data needs can be defined.

Once you know your objectives, determine what data will be required; then map the data onto the strategic plan. Every goal and objective listed in the plan should have quantitative or qualitative measures to indicate progress.

Reports to stakeholders must be timely, tied to objectives and available to people with the responsibility and ability to act on them. Spending the time necessary in the planning stage to determine what data is needed and in what format will produce payoffs in later implementation and use.

At the heart of a district's continuous improvement program is a sound technology infrastructure. The IT infrastructure underpinning most data-driven decision making systems requires a significant investment in hardware, software, implementation and maintenance. Look for standards-based systems that are interoperable to ease integration. "Open standards" support the exchange of data among multiple applications so that critical school applications work together efficiently and powerfully. The Consortium of School Networking (CoSN) has more information about using open standards and about measuring Total Cost of Ownership (TCO) at [www.cosn.org](http://www.cosn.org).

Perhaps the most important part of data-driven decision making is enabling the school community to use it. Districts must make a commitment to provide both the time and the resources teachers and other stakeholders need to effectively make use of data as a guide for instruction rather than as a method of evaluation.

## New Challenges and and New Accountability

The global information economy requires workers to have 21st century skills to become contributing members of society. It is no longer acceptable to allow a group of students to fall behind.

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Technology makes it possible to gather, connect, analyze and share information quickly in order to differentiate instruction. The reality of budget fluctuations requires flexible planning and resource management. School dis-

tricts answer both to the needs of the country and to the demands of their local constituents. Data-driven decision making frames a vision for what is possible and creates a plan of action: *the vision to know and do*.

This Backgrounder Brief is an executive summary of *Data-Driven Decision Making: Vision to Know and Do*, a component of CoSN's Essential Leadership Skills series. CoSN, a national non-profit organization, is the premier voice in education technology leadership. CoSN's mission is to advance the K-12 education community's capacity to effectively use technology to improve teaching and learning through advocacy, policy and leadership development.

For information about the CoSN Essential Leadership Skills series or to purchase components of it, see <https://my.cosn.org/mycosn/store/>. For additional information regarding the series, contact Elizabeth Weaver Engel, CAE, Vice President, Marketing, CoSN, at [Elizabeth@cosn.org](mailto:Elizabeth@cosn.org) or 866-267-8747, x120.