

# Evidence-Based Practice

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# Bringing Measurement to District-Based Accountability: The Challenge for State Education Departments

David V. Abbott

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*In response to new demands, state departments of education are changing the way they measure school and district performance. An effective approach is to look at a broad range of indicators and to provide guidance to districts so they can better support low-performing schools.*

Over the past few years, federal and state policies have dramatically transformed the role of state education departments in evaluating school and district performance and program quality. The No Child Left Behind Act has placed accountability for student achievement – as measured by performance on standardized state assessments – at the forefront of state agendas. At the same time, many states, such as Rhode Island, have transformed their own accountability systems from *authority-based systems*, which issue rules based on school performance, to *inquiry-based systems*, which give districts information and tools to help the districts give needed assistance to schools.

This combination of factors makes designing state-level accountability systems a difficult task. State education agencies are not only concerned with schools' meeting federal expectations, but must also be aware of how well those schools and districts are progressing toward developing their own internal accountability systems. Effective quality assurance and program evaluation rest on an understanding of the complex forces at work in schools and school systems.

Effective accountability requires information from multiple sources to inform state departments of education as they conduct analyses and perform their new functions. Standardized-test results are not enough; states need to collect and analyze a broad range of evidence about school and district programs so they can support districts in their efforts to improve practices that support learning.

Rhode Island has adopted a system of accountability in public education that focuses on the school district's role in maintaining an internal system of continuous improvement. Schools are answerable to their districts, which in turn are responsible to, and supported by, the state education agency. Direct state intervention in individual schools is limited to schools in need of corrective action. Building a district's capacity to design, implement, and evaluate its ongoing reform efforts has become the state's highest priority.

This focus on the capacity of districts to embrace standards-based reform has greatly changed the demands upon the state education agency. The state must set clear standards and expectations for district actions across a num-

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ber of content areas, and those standards must be supported by an infrastructure that identifies a range of proven management tools for districts to use to meet those expectations.

The variation of demands among urban, suburban, and rural school districts calls for a wide variety of tools. Bringing all students to high standards requires both statewide and local student assessments, curricula that are aligned with state standards, effective instructional practices, high-quality teacher preparation and training, integration of parents into the instructional process, and a coordinated accountability structure that facilitates informed decision making. Measuring the efficacy of these program and practice components is a significant challenge for both states and districts.

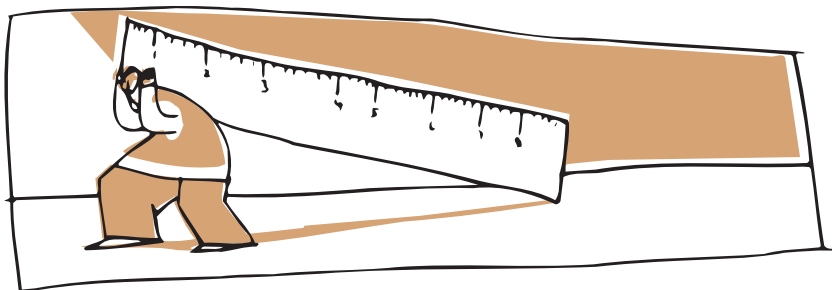
Rhode Island relies on two complementary accountability systems for improving student performance: School Accountability for Learning and Teaching (SALT) and Progressive Support and Intervention (PSI). Both systems rely on the use of assessment results and other evidence of student performance to inform systemic, ongoing improvement efforts. The SALT process is an annual cycle of school-based improvement activities consisting of self-study, planning, implementation of action plans, program evaluation, and public reporting. PSI is a results-driven

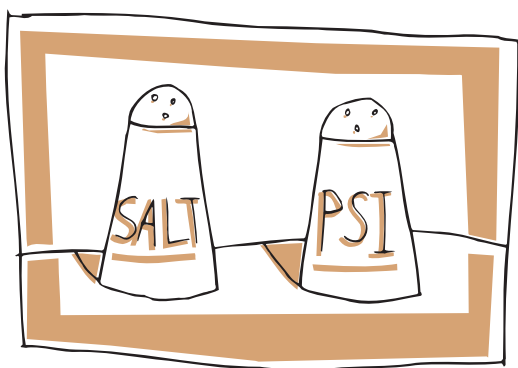
system of accountability in which the state works with districts to address the demands of schools identified as “in need of improvement.” Both SALT and PSI focus not only on ultimate student outcomes, but also on the systemic components that support effective teaching and learning practices.

Rhode Island’s school- and district-based systems of accountability are inquiry based and evidence dependent. There is an expectation of sustained and continuous improvement of student achievement in all school systems, as measured against the state’s grade-level expectations (grades 3–8), grade-span expectations (secondary), and the broad-based standards for student learning in the four areas of the state’s Common Core of Learning: communication, problem solving, body of knowledge, and personal and social responsibility (State of RI, RI Bd. of Regents, and RIDE 2001). Measures of student proficiency in such a system cannot be limited to what can be measured by standardized assessments.

### ***Building Districts’ Capacity for Improving Student Achievement***

For a state to use measurement to *support* as well as *monitor* districts’ improvement, it must meet the challenge of coming up with appropriate measures of practice. The goal is to





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*improve* performance, not just *measure* it. The essence of accountability lies in knowing what to do when confronted with evidence that performance is not meeting expectations. Standards, plans, and measures are of little use if the actions generated by these data are poorly designed or ineffectively implemented.

When, three years ago, Rhode Island switched its focus to improving districts' capacity to support schools, there was very little research available to guide our approach. Most studies on accountability had looked at *individual* schools, but little had been done to identify what districts needed to do to become effective at managing reforms *across* schools. Our first step was the creation of clear expectations for district performance. With the support of our Regional Education Laboratory at Brown University, we convened a group of state and district educators, who created a set of outcome-based standards called District Expectations for Improving Learning and Achievement.

Many states are now developing similar sets of district-level content and performance expectations to complement existing standards for students, teachers, and schools. Rhode Island chose to focus on seven areas representing distinct subsystems, each of which is characterized by a list of measurable expectations:

- Leading the focus on learning and achievement
- Ensuring equity and adequacy of fiscal and human resources
- Guiding the selection and implementation of curriculum, instruction, and assessment
- Recruiting, supporting, and retaining highly effective staff
- Using information for planning and accountability

- Engaging families and the community
- Ensuring safe and supportive environments for students

For each of these seven areas, we have combed the knowledge base to identify effective practices, which has enabled us to select appropriate performance measures. As with standards for student achievement, district expectations and their indicators allow the state education agency to work with school and district personnel to assess current district capacities in order to better inform resource allocation, strategic planning, and differentiated instructional supports to schools.

The PSI system of accountability is designed to build district capacity to improve teaching and learning. School districts start with a self-assessment, using a tool designed to measure their capacity across the seven areas of the district expectations. The Rhode Island department of education performs a similar task, based on an in-depth review of a wide range of data from different sources about the district, which are then compiled into a comprehensive district profile. These two perspectives on current gaps in the district's capacity to implement reforms – the district's and the state's – are reviewed together at a face-to-face meeting between the state agency and the district. Strategic and resource-allocation decisions are made at this meeting, based on agreed-upon priorities and sequencing of action steps. All decisions are made within the context of bolstering the district's capacity to oversee its own school-improvement efforts.

This emphasis on internal accountability for continuous improvement requires an understanding of the complex and overlapping operations in schools and school systems. Each district central office has a primary respon-

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sibility to ensure that its schools have the capacity to lead and support their faculties in activities aimed at improving the quality and efficacy of learning and teaching. But systems capacity alone is not sufficient to improve student performance. Effective accountability initiatives must yield fundamental changes in the actions of teachers, administrators, students, and parents in ways that improve learning. People within these systems must both value those changes and believe that positive change is possible.

Performance expectations for schools and districts must therefore be considered in concert with standards for educational professionals and expectations for curriculum development, instructional practices, parent engagement, school safety, and school governance. There is virtually no aspect of education operations that cannot benefit from established standards for content and performance.

### ***Generating Multiple Sources of Meaningful Data***

Many state and local education agencies have begun their development of information technology systems by developing the infrastructure to collect, store, and access information, without first determining which data elements should be generated and who will be able to analyze the resulting rich information base. We went about it the

opposite way. We know that the identification of useful and meaningful indicators, coupled with the development of analytical skills among practitioners, is the basis of an effective system of accountability.

Choosing which indicators to measure raises immediate problems. On the one hand, there is the temptation to use a multitude of indicators in order to support extremely discrete, complex analyses. On the other hand, state agencies may want to select a parsimonious set of indicators to ensure that they are as accessible and

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intuitively graspable as possible. Education should not become a “black box” endeavor controlled by the few researchers and analysts able to make sense of a bewildering sea of information. What is needed is to develop the inherent analyst in every educator and to bring analysis and differentiation to every classroom.

The potential number of indicators in any one information system is enormous. It is important to define the range of indicators needed to track the development of any system element as the smallest number of data required to make sound decisions. The ability to track changes over time and to represent these changes in easy-to-understand chart form are also important.

An effective accountability system requires information from multiple sources to inform an analysis of the many aspects of education systems. Relevant data may be effectively grouped into four categories:<sup>1</sup>

- *Contextual and demographic data*, including student characteristics such as family income status, mobility, race/ethnicity, gender, limited English proficiency (LEP) status, truancy, attendance, discipline referrals, and graduation rate, as well as school characteristics such as school enrollment, structure, scheduling, class size, parent participation, teacher certification, and teacher assignments.
- *Inputs or resources*, such as curriculum, student interventions, professional development and mentoring supports, and common planning activities.
- *Process measures or instructional practices*, including perceptual or evaluative evidence of standards-based instruction provided by self-study, surveys, learning support indicators, mission statements, observations, and structured school visits.
- *Outcomes or measures of student learning*, consisting primarily of state assessment results, local assessments, student work, and teachers’ observations.

The combination of quantitative and qualitative information from these four sources of data allows for detailed analysis of the impact of instructional practices and support mechanisms on student learning. The multiplicity of these measures is the key to an effective comprehensive education informa-

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<sup>1</sup> Margaret Votta, senior research associate at the Annenberg Institute for School Reform, contributed significantly to my knowledge of this categorization, which is adapted from Victoria Bernhardt (1999) and Madhabi Chatterji (2002).

tion system. Developing a system of measurement that incorporates all four areas involves a number of challenges.

### **Contextual and Demographic Data**

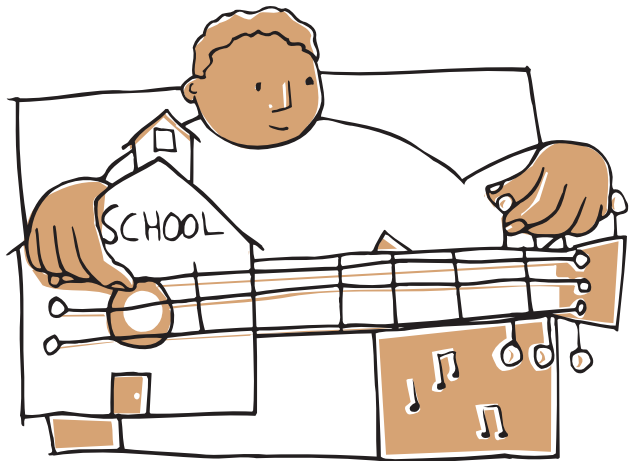
Most states have already identified contextual and demographic indicators, especially the states that have adopted comprehensive standards such as those developed by the National Center for Education Statistics. In response to federal reporting requirements, existing district information systems now contain information they need to compare schools or districts.

### **Inputs**

Many districts have identified the inputs associated with high performance, but they may not be adequately measured. For example, many districts place a high value on the use of articulated curricula aligned to state standards. But alignment is difficult to measure. Measuring a district's performance is also challenging because many resources are directed at the school level, often creating disparities in application across a district. There is a clear need for state education agencies to tackle these issues related to measurement of inputs in educational systems to enable schools and districts to make coherent links between reform efforts and resultant student performance.

### **Process measures**

Measuring the effectiveness of education processes is perhaps the most difficult challenge in bringing measurement to education accountability. Rhode Island approaches this issue through three complementary tools within its SALT initiative. The first is the SALT Survey, a comprehensive survey with different sets of inquiries for teachers, administrators, students, and parents. This tool provides invaluable



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insight into the beliefs and opinions of these constituencies with regard to a wide variety of topics, including instructional practices, school-improvement efforts, professional development, school safety, parent involvement, student engagement, and faculty culture.

The SALT Survey is complemented by the SALT visit, which is conducted on a multiyear schedule. Based in part on the British “Inspectorate” model, the four- or five-day visit by peer reviewers from other districts and the state education agency provides an outside, structured perspective on student learning, teaching, and school climate and organization. At the conclusion of the visit, a report is issued on the findings of the team. The report is meant to be a reality check to see whether the school’s perceptions match those of the outside peer observers, who share the same goals for student and school performance and understand the concerns and challenges of the public school environment.

Finally, state officials collect and monitor the content of school-improvement plans, district strategic plans, financial data, and consolidated grant applications. These reviews reveal where a district is committing resources and how it outlines its priorities. They also provide insight into what is not yet on the district agenda. Due to the complexity of program evaluation and

other measures of educational practices, state education agencies bear a significant responsibility in the development of these largely qualitative information systems needed to measure processes and practices.

### **Outcomes**

Measurement of outcomes presents two distinct difficulties. First, districts are just beginning to see the value of generating a rich and immediate picture of student achievement that can only be generated by the use of local assessments. Designing and implementing an integrated system of local assessments that provides immediate feedback to the classroom teacher and that informs specific practices is extremely difficult. Second, creating discrete measures of the effectiveness of individual inputs or practices has bedeviled an educational system intent on relying on a scientific research base, although some emergent work has been done in this area.

Precise evaluation of distinct program and practice efforts is largely beyond the capacity of most school districts and even of most state education agencies. Program and practice evaluation techniques remain the purview of skilled consultants and research institutions. Widespread use of accurate measures of educational subsystem outcomes remains in its infancy, where, without concerted regional or national initiatives to bring program evaluation to our schools and districts, it will remain.

### ***A Comprehensive Education Information System***

Statewide accountability for student achievement requires the integration of measures from all four of these categories of data. For diverse stakeholders to share diverse information and use it to inform decision making, a state needs a comprehensive education infor-

mation system. Teachers and administrators must be able to use information systems to access a broad range of data to analyze student results, explore successful practices, and continuously adapt and improve instruction.

The use of information to make decisions about the distribution of resources, adoption of programs, implementation of specific instructional practices, and assignment of personnel requires a heightened level of commitment to information technology and data analysis. Bringing such a system to bear in an educational environment is a considerable and ongoing challenge.

A comprehensive education information system consists of six core elements: identification, generation, collection, storage, access, and analysis of relevant data. Information must be current, accurate, and reliable, and should include both quantitative and qualitative measures. Generating and providing access to relevant information presents considerable logistical demands, but is only an initial step in moving towards an inquiry-based system of accountability. Every state currently generates a tremendous amount of relevant information about its schools and school systems. However, the ability to categorize, access, and analyze that information at the school, district, and statewide levels is generally insufficient or cannot be completed within time frames that make the data useful.

Effective analysis is by far the most important element of the information system. The ability to draw accurate inferences from a complex body of evidence is not an area of competence we have traditionally required of education professionals. It is a skill more often identified with research scientists than with classroom teachers and administrators. However, it is this ability

to measure current performance against clear expectations that holds the most promise for creating educational systems that truly address the needs of all students.

### ***Looking to the Future***

Analysis of a school's demographic, achievement, instructional, and systems-evaluation data against specific reform goals is the key to ongoing self-study that accurately measures the effectiveness of individual action plans. State agencies will continue to work with school districts to develop their capacity to gauge the nature and extent of support required to implement new instructional programs.

This evaluative work is the key to moving from "pockets of excellence" to systemic improvement through longitudinal studies, cohort comparisons, and evaluation of specific reform strategies. Only by bringing measurement and analysis to our ongoing efforts to improve instructional practice will we be able to meet the demands of bringing all students to high standards.

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