Measuring school and system performance presents a major challenge and opportunity for governments. The public is demanding stringent quality reviews to ensure that the multi-billion dollar education investment has the greatest possible impact on student learning. Current methods to evaluate system performance do not do a good job of demonstrating how well students achieve intended goals or the impact of program spending. Effective accountability systems will embody a continuous cycle of assessment, analysis, and action. Agreement on the indicators and tools to assess them is only a first step. Attention must be paid to policy options for developing effective strategies to focus the system on results and building school capacity for improvement. Promising new strategies across North America are examined, including setting targets, publishing school profiles, incentive plans and sanctions, school performance contracts, and new personnel practices. Truly effective accountability systems will be those that change the internal dynamics of our schools and address the will and capacity of schools to use performance data to improve their practices and engage the whole community in supporting improved student learning. (Contains 29 references.) (Author/SLD)
Linking Assessment and School Success

Paper Presented to the American Education Research Association
Montreal, April 1999
by Helen Raham

Synopsis: Measuring school and system performance presents a major challenge and opportunity for governments. The public is demanding stringent quality reviews to ensure the multi-billion dollar education investment has the greatest possible impact on student learning. Current methods to evaluate system performance do not do a good job of demonstrating how well students achieve intended goals or the impact of program spending. Effective accountability systems will embody a continuous cycle of assessment, analysis and action. Agreement on the indicators and tools to assess them is only the first step. Attention must be paid to policy options for developing effective strategies to focus the system on results and building school capacity for improvement. The author examines promising new strategies across North America, including setting targets, publishing school profiles, incentive plans and sanctions, school performance contracts and new personnel practices. The conclusion suggests that truly effective accountability systems will be those that change the internal dynamics of our schools and address the will and capacity of schools to use performance data to improve their practices and engage the whole community in supporting improved student learning.

Measuring school and system performance presents a major challenge for governments. Ontario’s most recent Royal Commission on Learning sharply reflected this reality in its report:

“One complaint we heard repeatedly was that the public education system no longer seems responsible to the public... There exists widespread unease that schools have become kingdoms unto themselves, with little need to report to parents or the world at large what they are doing with our kids and whether or not they are doing it successfully.”

Canada is not alone. Education Week’s comprehensive 1997 report card on the condition of public education in the United States noted a troubling lack of useful hard data on performance: “Public education is a vast enterprise.... Its success is clearly linked to the welfare of the nation and the future of our children. Yet we do not know in any but the crudest way, how well our education system is performing.”
In the past three years, however, there has been a marked general trend across North America towards increased assessment of school system performance. Government audits have begun insisting on measures of value for education tax dollars invested. Although this reflects a sound reading of the public mood, it requires a new culture of evaluation in our school systems.

Much of the education establishment still harbors an intense distrust of achievement data. (Schmoker, 1996) Many educators and school district officials argue that learning cannot be measured accurately, that testing restricts educational experiences and penalizes the disadvantaged. Included among the key objections by the education community to standardized assessment programs are: inducing ‘teaching to the test’, narrowing the curriculum, tapping only lower-order thinking skills, administrative cost, hurtful to low achievers, and test biases unfair to minorities. While many of these concerns can be disproved or alleviated through more sophisticated assessment practices (Phelps, 1999), they remain a common obstacle to system measurement.

This resistance may be illustrated through the reaction to the B.C. Office of the Comptroller-General report released in 1997. The report found the education ministry and the school system “need to improve measurement and the reporting of how well students achieve intended goals.” A countering brief to the government submitted by the B.C. Teachers’ Federation insisted that accountability must only be measured in terms of “opportunity to learn”, not in measurement of learning outcomes. The BCTF requested elimination of the province-wide learning assessment program newly employed to track both school and program performance over time. In spring of 1999, the Minister of Education announced school-level results would not be released until concerns could be resolved.

Yet school assessment holds promise of succeeding where other reforms have failed in raising student performance. As Schmoker notes, “Goals rightly defined and pursued, are the most crucial element in any school system that hopes to get better results.” (Schmoker, 1997) Although the classroom has proved remarkably well-insulated from most government education policies, using student scores on prescribed tests to make judgments about the quality of education provided in a particular school or district has evoked changes in what happens in the classroom. (Murnane, Levy, 1996) Recent national comparisons of standardized achievement results have demonstrated
that jurisdictions in both the US and Canada implementing the strongest assessment and public accountability programs have realized the largest gains in student achievement. (Grissmer 1998, NAEP 1999, CMEC, 1999)

Governments are now seeking the best tools and measures to improve learning outcomes. As they develop frameworks to provide useful data for guiding educational decisions and program investments, they are asking:

- What are our priorities and targets for future learning gains?
- How can we cause schools to focus on goal-setting for improved learning?
- What is the evidence that a program significantly improves student learning?
- How can funds be reallocated to support what works?

**Linking Assessment to Accountability**

Finding appropriate school evaluation systems means clarifying the relationship between assessment and accountability. The Annenberg Institute suggests accountability is the obligation or responsibility to demonstrate effectiveness, and that it has four components:

1. the development of standards that define desired outcomes
2. the evaluation or assessment of progress towards those outcomes
3. analysis of the resulting data
4. corrective action based on that knowledge

Such a process goes beyond mere assessment - the gathering, organizing and reporting of information. Accountability uses data to make judgments about where we need to adjust behaviors in a constant cycle of assessment, analysis and action to improve future performance.

Joan Green, the chief of Ontario's Education Quality and Accountability Office, made this clear in the first round of that province's mandatory provincial testing of skills in reading and math in 1997: "We believe large-scale assessment can contribute to positive educational change when it engages educators, parents and students in thought and discussion about what takes place in the classroom. We are committed to a cycle of assessing and reporting that leads to action."
Tests are not Enough
Testing reveals what students know and are able to do in core competencies we expect them to master. Achievement scores alone, however, have limited power to improve student learning. It is only when school communities have the will and capacity to reflect upon a range of data and utilize it for future performance planning, that assessment will be valued.

But test scores alone do not provide sufficient information on school success. A broader range of indicators is needed, including parent and student satisfaction levels, attendance rates, school leadership, community involvement, and valuable student learning which cannot be captured by exams. Schools will need to develop reliable tools for measuring their own school-specific goals in other than core learning. Complimentary use of internal and external evaluation can point schools to the path for necessary change to improve student outcomes. (Marchesi, 1998) This total performance feedback provides useful guidance for practitioners.

As Michael Fullan observes, “The way to deal with potential misuse of student performance data is to become assessment literate. Schools put themselves in the driver’s seat when they invest in professional development and collaborative cultures that focus on student learning and associated improvements in instructional practices.”

Successful schools are now grappling head-on with building their capacity for improvement. We know from the research findings that this requires developing deeply embedded school practices and habits that strengthen the focus on results. The challenge is how to “re-culture” every school to achieve this.

Building Capacity to Respond
If we wish to encourage schools to use results to improve student success, the system must be designed in a way that both identifies problem areas and enables those responsible to respond. Early accountability systems often failed because they attempted to employ top-down approaches which ignored the high-involvement principles at the local level necessary to impact student learning.
School improvement is a highly complex and collaborative exercise. No single magic solution or simplistic measure will work for all schools. The task of educating very diverse learners to much high standards of learning in a world of with fast-changing educational demands will require more responsive schools than present bureaucracies allow. High-performance schools require a high level of autonomy and flexibility at the school site. (Darling-Hammond, 1996). Engagement of the total individual school community in designing solutions and responses to their unique learning environment must be possible in any accountability plan.

Creating Incentives that Work
Some practices are emerging as policymakers attempt to create a climate in which all schools can become centers of excellence. The question to ask of each strategy will be, How well does it raise student achievement over time? We are just now beginning to accumulate some early evidence.

Setting Targets
Governments can influence system performance by analyzing strengths and weaknesses and identifying improvement targets. A few Canadian provinces such as Alberta, Newfoundland and P.E.I. have developed multi-year education business plans. The best established is Alberta’s Education’s Three-year Business Plan now in its second cycle, which publishes comparative progress with previous years on a wide variety of indicators, and announces specific provincial targets for the following years. Schools and boards are required to develop annual education plans aligned with the targets and report on their progress. This act of quantifying goals has focused attention, resources and efforts on the result. In national assessments, Alberta consistently rates at or near the top in student achievement.

Connecticut produced the largest reading gains on the National Assessment of Educational Progress (NAEP) between 1992 and 1998, with the percentage of grade four students at or above proficiency levels rising from 34% to 46%. This was achieved through “a deliberate attempt by state policymakers to improve student literacy skills through rigorous assessment and targeted aid.” (Education Week, March 10, 1999). Efforts to meet state reading goals included administration of Connecticut Mastery tests with annual targets, dedicating $20 million a year to urban reading intervention programs and 20% of priority districts’ funding to early literacy programs, and requiring three-year plans by districts for raising reading performance.
Publishing School Profiles

Thirty-six U.S states now require all schools to publish annual school progress report cards. Some districts make school profiles available on the web. Ontario's North York School District publishes a detailed annual profile of all schools in a binder for parents. A four-page report card on each school provides test results, demographics, special programs and school improvement plans, giving parents assessment information in a meaningful context. The Calgary Public School Board recently reversed its long-standing policy of opposition to published school-level achievement data in the face of evidence that careful use of this information for school-improvement planning and reallocation of resources according to 'what works' was successfully used by the Calgary Catholic School Board to raise performance in their schools. (Calgary Herald, January 1999)

In Texas, an aggressive program over the past decade of annual assessment and published school profiles has produced achievement state-wide gains year after year, which would appear to be corroborated by gains well above the national average on NAEP. Observers of Texas also report (Phelps, 1999 p.5):

- A greater focus on academic learning
- A culture of high expectations and enthusiasm for reaching standards
- Generous and immediate remediation efforts towards poorly-performing students
- Greater interest among teachers in academic strategies and more cooperation with each other
- Quicker feedback for school faculty on which instructional strategies work best

Practitioners' resistance to the release of school performance data is fueled by blatant examples of misuse of data, such as the raw ranking of schools, and the fear that such information is harmful to weaker schools. The fundamental principle underlying the use of data to spur performance, however, is that each school competes against its own previous results. This value-added format can be helpful to all schools, even those which serve disadvantaged students. Schmoker (1996, 97) finds ample evidence to suggest that direct scrutiny of individual school results year on year is the most effective way to narrow the gap between high and low income students. Analysis of the most recent National Assessment of Educational Progress (NAEP) supports the conclusion that low income and minority groups are making gains through rigorous attention to assessment results,
although they are still performing considerably below their more advantaged peers. Two states with strong assessment programs and larger than average disadvantaged populations, North Carolina and Texas have made the biggest gains.

Many researchers point out the need to build a culture of assessment literacy amongst both public and educators. One recent trend is the development of technically proficient experts at state and district levels to disaggregate and assist in interpreting data for a variety of audiences. Some jurisdictions such as Virginia, Massachusetts, Delaware and Washington are paying increasingly careful attention to education of the public and the media about the meaning of assessments before the annual information is released. (Education Week, 1999)

**School Based Processes for Examining Achievement**

In some provinces, school councils are mandated to develop and oversee school improvement plans. Nova Scotia’s school councils must “prepare an annual accountability report describing school improvement activities undertaken during the year and the specific results achieved.” Some systems such as British Columbia require a cyclical school accreditation process which includes self and peer-review components. New Mexico and Rhode Island are among states which have combined statistical profiles of a school’s performance with on-site visits by teams of educators and others to examine school practices. In some jurisdictions, internal school evaluations are combined with an external quality review process by a government agency, such as the Texas Education Agency.

New formats for accessing quality professional development are key to building school capacity to respond effectively to achievement results. Policymakers suggest that without making this a priority, standards and accountability efforts alone will not succeed. Professional development must be aligned with standards and assessment, focused on student achievement, flexible and responsive to individual school needs, accessible, convenient and adequately funded. (Watts, 1998) Finding time for professional training and school improvement planning is one of the most serious obstacles. Alternatives such as lengthening the school year and intensive summer sessions with follow-up clinics on weekends are being explored.
**Performance Incentive Plans**

In Dallas, Texas teacher and principal performance rewards are tied to learning results. Each year, $2.4 million is awarded to school staffs where 'value-added' in student learning outcomes is highest. Schools compete against their own previous scores, not against arbitrary norms. In Charlotte-Mecklenburg, North Carolina, a school evaluation plan combines achievement results-based evaluations with cash bonus awards. Fourteen states and the province of Alberta now provide monetary rewards to schools or districts meeting their individual improvement targets on a variety of measures.

The premise of such cooperative performance incentive plans (CPI) is that when an entire school community works together to raise student performance over its own previous benchmarks, there are more positive results than with plans that merely reward individual efforts. CPI plans may take 3-5 years to fully implement. Further evaluation is needed to determine if they have been more effective than earlier individual merit pay plans. What is known, is that some states such as Kentucky, Texas and North Carolina using CPI approaches for five or more years are demonstrating significant gains.

Conditions leading to success of CPI programs have been defined as open access to information, site-based decision making, a support system that helps schools interpret and assess data, persistence and a significant commitment of resources. (Richards, 1993) Perceived fairness is critical to a CPI plan's acceptance, with care taken to ensure a level playing field and that progress for each unit is measured on a value-added basis. Districts that have successfully implemented CPI programs have sought cooperative input from the field at all phases of design and implementation and offer rewards commensurate with the level of effort required to attain. (Kelley, 1996).

**School Performance Contracts**

Districts such as Boston, Philadelphia and Baltimore have established pilot public schools under specific performance contracts to fill unmet educational needs in the district. Baltimore, for example, sought proposals geared to under-served and disadvantaged students. By a joint agreement between the union and the district, these contract schools are given wide latitude from district and contract regulations to encourage innovative efforts to improve student achievement.
Public charter schools expand this principle of autonomy for accountability. Over 1200 of these schools are operating as independent legal entities, and may continue to exist only if students demonstrate the results and educational goals specified in their charter. Comprehensive research now underway in (U.S. Department of Education, 1998 and others) and Canada (Bosetti, 1998) will determine the success of the charter movement in raising student achievement.

**Personnel Practices Tied to Achievement:**

There is a growing understanding of the need to place a high priority on the quality of instruction in the classroom, rendered next-to-impossible by many collective agreements. A groundbreaking 1997 Seattle Public Schools teacher contract alters teacher evaluation and hiring provisions. It ties teacher assignment to skills required by the school and links teacher evaluations to gains in student achievement. In Texas, an appraisal system begun in 1997-98 requires districts to take into account student performance when evaluating teachers. Tennessee's Value-Added Assessment System generates confidential information on the performance of each teacher's students which principals may use in recommending professional development. The diagnostic information provided has underscored the "dramatic effect skilled teachers have on performance." (Quality Counts '99, p. 2)

In other personnel quality assurance moves, Oregon has eliminated teacher and principal tenure. Washington DC and Florida have reduced probationary periods to 90 days, speeding up the time it takes to remove weak teachers. Other states have provided additional resources to districts to retrain or remove administrators whose schools fail to show improvement, and to help school administrators assess, re-train or dismiss inadequate teachers. Some states have implemented mentoring programs. Thirty states have placed greater emphasis on rewarding advanced professional certification and professional development. In 1998, the National Education Association adopted resolutions supporting effective monitoring of teacher quality.

This fits with forecasts of increasing decentralization of schools and teaching in the 21st century. Some education labor experts predict that when teachers are hired by individual schools on contracts reflecting the goals of the school, teacher union focus will shift from job control, work rules and uniformity to organizing around professional competence, quality assurance and increased productivity. (Kerchner, Koppich, and Weeres, 1997) Carefully designed competency-
based pay to reward skills, combined with school team awards for collaborative achievement of performance goals, will provide the incentives teachers need to develop the skills to perform to heightened expectations. (Kelley, 1996). Evidence of the impact on student achievement from new personnel practices remains to be gathered.

Interventions in Failing Schools
Some policymakers are intervening where assessment shows persistent failure to improve student learning. When Chicago Superintendent Paul Vallas placed over 100 schools on academic probation in 1997, test results show marked improvement across the district. The largest gains were made by the poorest performing students, where schools on probation changed instructional methods and extended the school day. North Carolina reports 15 schools designated for ‘mandatory assistance’ in 1996-97 finished the 1997-98 year with improvements of more than 10%.

Twenty-three U.S. states have ‘academic bankruptcy’ provisions, allowing them to intervene directly in persistently low-performing schools. These measures range from additional training and resources, to replacing district or school leadership, replacing school staff, or closing the school. In practice, few states have been willing to use the severest sanctions. Evidence to date on the effectiveness of drastic intervention efforts is largely anecdotal and incomplete at this point.

What is clear is that chronically low-performing schools usually have limited capacity on their own to make the changes necessary to improve achievement. Such schools require not only pressure but support. More attention is being paid to district and state roles identifying failing schools, providing technical assistance and additional resources, and evoking a collaborative process involving all stakeholders to redesign these schools. A key policy element in North Carolina and Texas, both recognized for producing rapid achievement gains, has been the shifting of resources to schools with more disadvantaged students. (Grissmer, 1999)

Conclusion
There are now many strategies available for policymakers to link assessment and accountability to improve student learning. Truly effective assessment systems will change the internal dynamics of our schools and nurture the leadership and flexibility required to design and implement pathways to success for every school.
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Title: LINKING ASSESSMENT and SCHOOL SUCCESS

Author(s): HELEN RAHAM

Corporate Source: Society for Advancement of Excellence in Education

Publication Date: April 1999

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