

Accountability Measures in Public and Independent Schools:  
Impact, Implementation and Effectiveness

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### Abstract

Although accountability in educational systems has existed in various forms over the last century, the last two decades show more activity with the emergence of balanced scorecards, No Child Left Behind Act and increased scrutiny of educational outputs. A dearth of research exists on the effectiveness of these accountability measures, with no evidence of research in the independent school sector. There is significant description of what is needed to hold public and private schools accountable. However, more research is needed in both public and private educational communities regarding what should be measured and the effectiveness of those measurements in assessing school success. A sample set of indicators is presented as one possibility for long term measurement of success in schools.

## **Purpose and Objectives**

Accountability in schools has emerged over the last two decades as a call to measure success in schools. Perhaps a reflection on questions regarding success in the corporate-world, schools, especially public schools are being held increasingly accountable for results. With the passage of legislature such as the No Child Left Behind Act in 2001, public schools are mandated to collect data, share data and determine adequate yearly progress. In the midst of this narrow, test-driven accountability system emerge three questions to be answered in this research: the evolution of accountability metrics in schools; the use of accountability systems within independent schools; the effectiveness of accountability systems in schools. The goal of this research summary is to discuss a brief history of educational accountability in both the private and public sector, review the literature on the effectiveness of these systems and present a current direction for independent school accountability, both in research and action.

## **Methods**

The majority of this research was done using Google Scholar. Search terms included balanced scorecards, accountability, schools, metrics, independent schools, and success. These searches revealed 25 relevant articles published from 1989 through 2009. Articles were reviewed in their entirety for the purpose of this research. Additional searches for school websites were completed using Google. I searched the National Association of Independent Schools (NAIS) using the term balanced score cards which revealed blog entries and non-peer reviewed journal articles from the NAIS publication Independent School. Finally, I communicated with three principals of schools that had a school

implementing some form of a balanced scorecard approach as well as the president of NAIS.

### **Literature Review**

As early as 1989, researchers began writing about alternative forms of evaluating student progress. Researchers argued that assessment measures, narrowly focused on test scores, should broaden to include school context, including student achievement, access to knowledge and professional teaching conditions (Oakes, 1989). Simultaneously, in the for-profit sector, Robert Kaplan and David Norton created the balanced scorecard (BSC) approach. This approach looked at both traditional financial indicators of success as well as non-financially linked indicators. The holistic view of an organization was predicted to provide more complete feedback on success (Kaplan and Norton, 1996). The BSC system emerged in the non-profit world but was complicated by the fact that non-profit employees and leaders were focused on program rather than output. Successful implementation depended on committed leadership, measure of outcomes; and a focus on clear output indicators (Forbes, 1998; Kaplan, 2001). Within the for-profit sector, the effectiveness of BSC programs is varied. With high levels of communication, the BSC model was effective for controlling corporate strategy and some evidence suggested that it improved the company (Malina, 2001). Contrary to this, for a variety of reasons, Schneiderman (1999) argued that BSC models failed due to five major reasons: incorrect metrics, negotiated metrics, weak metrics, lack of follow up, and incorrect connections between metrics and outputs.

### **Accountability in Schools**

In early 2002, the focus on accountability increased in the public school sector in the United States with the introduction of the No Child Left Behind Act of 2001 (NCLB, 2001). Preceding this, researchers pushed for more data collection and data-driven decision-making in public schools (Noyce, 2000). Simultaneously, this narrow focus on test scores saw a response of pushing more holistic measures of school success. In the United Kingdom, Storey (2002) noted that in the business sector, a 90% increase in productivity occurred with the onset of a BSC method and he hypothesized schools may be open to this process but more empirical research needed to be done. With No Child Left Behind accountability implemented, concerns emerged about the differential impact of the system. The focus only on the disciplines of math and English and variable proficiency standards between states decreased the effectiveness of the program (Rothstein, et. al., 2009). More efforts should focus on measuring school safety, academic access, student and teacher learning. Increases in transparency also are critical for accountability systems (Rothstein, et. al., 2009; Jones, 2004). From these challenges emerged glimpses into a more holistic BSC approach in schools. The United States Chamber of Commerce has set up the Malcolm Baldrige Award to promote productivity in the United States. A few school systems earned commendations through this program, which requires a BSC approach (Richards, 2004; Karathonos, 2005). The New York City public school system instituted a comprehensive accountability system in 2007 that is transparent and includes some components of a BSC approach such as school climate, parent and student perception as well as traditional metrics such as tests scores. All

reports are readily available online with comparisons to other similar schools. Other states such as Colorado and California have published school report cards on their state Department of Education websites with narrower measures of school success primarily focused on standardized test scores and budgets.

Given this push for accountability, it is interesting to note the response in the non-public school world. The National Catholic Education Association published a statement in 2004 that all Catholic schools should produce annual progress reports (NCEA, 2004). I could find no evidence of these reports online. The National Association of Independent Schools (NAIS) began a discussion on accountability that initially revolved around financial sustainability in schools. The 2004 issue of *Independent School* magazine was devoted to assessment and accountability (Buckheit, 2004; Bassett, 2004). Over the next four years, the NAIS began disseminating information to member schools about long term sustainability with a focus on data collection, reporting and accountability (Bassett, 2006; Bassett, 2009). I was able to find five independent schools that implemented BSC approaches in their schools, but no data exists as to the effectiveness of the systems (P. Bassett, Personal Communication, February 4, 2009). None of the five schools made their data available on the internet. For-profit organizations such as the Balanced Scorecard Institute have begun to market the use of BSC in schools. Anecdotes suggest that reviewing data with a BSC accountability model have led to changes in independent school programs. For example, a look at a single metric of attrition versus number of new students allowed the school to refocus on retention of students in a particular grade transition (M. Copeland, personal communication, February 3, 2009). Suggestions and

ideas have been promoted regarding the evaluation and survey of alumni as a direct measure of success in schools (Skipper, 2004).

The NAIS recommended ten basic measures for measuring school progress over time (Table 1). These measures have not been tested in many schools and no research has determined the effectiveness of these indicators in enacting change in the schools. NAIS also has developed a set of financial metrics to measure sustainable operations in schools. The benchmarking tool Stats Online allows all member schools to compare themselves to peers in a variety of metrics.

### **Effectiveness of Accountability Measures in Schools**

Empirical data on the effectiveness of accountability systems in schools is now beginning to emerge. It is clear from these first reports that accountability systems do improve progress on the particular output being measured, but several concerns exist. The primary conclusion is that the NCLB law has led to gains in student performance on standardized math and English language arts measures (Jennings, 2006; Azin, 2008; Rockoff, 2009). There are also punitive measures for under-performing schools written into the NCLB legislation. Academics present different opinions about the effect of consequences on improvement. Hanocheck (2004, 2005) argued that simple disclosure of information may be enough to cause improvement in schools. For some aspects of accountability, but not all, consequences may be a critical component in order to show improvements (Hanocheck, 2005; Elmore, 2005). The stigma associated with a failing grade may be more important than the failing grade itself in causing school improvement (Figlio,

2006). Information on whether or not accountability systems improve schools (and thus student learning) is limited. However, Rockoff (2009), in an investigation of short-term gains due to the New York City accountability system, determined that parent perception may improve after accountability measures were implemented. Due to variability in number of responses, this satisfaction data is only preliminary. Anecdotes suggest that New York City accountability systems, although the first to include multiple measures as part of a wide-scale system, have limitations. First, 40% of schools received the highest mark and thus will not be evaluated for the next two years. Second, anecdotes suggest that the accountability system only is a hurdle that needs to be overcome to remain open, rather than a system to cause school change. In both schools the leaders and faculty were the driving force for constant improvement (L. Yan and S. Conti, personal communication, February 3, 2009).

### **Results and Conclusion**

The results of this literature review suggest three major trends in school accountability: development of comprehensive metrics; need for research; and practical implementation in independent schools.

The implementation of NCLB narrowed accountability systems in schools with resultant narrow gains in improvement among some cohorts of students in the public school sector. The BSC approach in all schools could provide a comprehensive set of metrics to evaluate school success over time. Many hurdles exist in this process, but research from the for-profit sector could guide successful implementation. The development of metrics

should rest on the body of current research to avoid pitfalls of the past. Metrics should be modified to include teacher effectiveness, value-added metrics on the individual student level, and leadership effectiveness. Although some will be subjective, the impact of discussion on pedagogy could be significant. Additional metrics in independent schools should include holistic measures driven by a school mission such as environmental factors (recycling rates, % use of alternative energies), global factors (% international composition of faculty, # global projects) and programmatic factors (% of faculty who are peer reviewed each year; % completion of programmatic goals); faculty and staff factors (% satisfaction rate of leadership; % satisfaction rate of teachers). Additional metrics on student learning could include scores from the High School Survey of Student Engagement (HSSSE) and the College and Work Readiness Assessment (CWRA). Both of these exams are efforts to measure engagement, collaboration, creativity and communication – skills that are not detected in traditional standardized exams. In an effort to improve accountability to all constituents, I have proposed BSC metrics for Journeys School of Teton Science Schools (Table 2). It is critical that metrics are always linked to evaluation and change. Additionally, the BSC approach, with clearly defined metrics, must be driven from within the organization itself.

Research on the effectiveness of school accountability systems leading to measurable school improvement is limited. The lack of ability to control variables, variability in studies, and flaws in the development of metrics all appear to decrease the validity of existing research. The current system of School Report Cards in New York City, implemented in 2006, offer a significant opportunity to carry out research. This system

provides a comprehensive system with uniformity across many different types of schools. Both the sensitivity of the metrics and pre/post data will have to be evaluated. Finally, there is an opportunity for independent schools to increase their long-term sustainability, transparency and overall success by adopting a BSC approach to school improvement. As accountability increases in the public school sector, constituents of independent schools will begin to ask for the same. NAIS can play a large role in promoting this type of accountability within its membership. First, begin to provide some funding for academia to research success and accountability in independent schools. Second, continue to develop the work began in 2004 by linking Stats Online, current research on metrics, and case studies of implementation in member schools. The development of a standard set of software tools for both implementation and reporting could be helpful in this regard. The use of the current recommended set of metrics to compare baseline data to other schools along with school-based metrics would increase the relevance of the system. Third, encourage regional accrediting bodies to require BSC reporting and longitudinal data during their accreditation processes. It must be made clear that a BSC approach in independent schools could look vastly different than that in the public sector. However, the power of accountability to their community and transparency in communication regarding improvement would lead to long-term sustainability and continued improvement in the independent school world.

There is more work to be done in holding schools accountable for successful educational experiences. Although not accountable to state or federal mandates, independent schools need to meet the challenge of self-assessment and improvement on a set of holistic

subjective and objective measures that correlate to school goals. Only by creating and then evaluating these metrics on an annual basis will independent schools retain their innovation and edge in the face of an increasingly competitive American education system. Independent schools must avoid the pitfalls of narrowness and irrelevance that has been learned over the last two decades and create a system that is on the leading edge, instead of tailing edge of the educational system.

Table 1: Recommended Indicators of Sustainability in Independent Schools (Bassett, 2009).

<b>Category</b>	<b>Measurement</b>
Market perception of school success	Number of applications per acceptances
Stability and confidence of school	Student attrition
Constituent loyalty	% of total of each constituency that gives (Alumni %, Parent %, Trustee %)
Competitiveness in attracting the best teachers	Faculty salaries (Highest, median, lowest)
Affordability	% one year change in tuition; average tuition
Socio-economic diversity	% financial aid of budget; % students on financial aid; average financial aid amount as percent of tuition
Efficiency	Student:faculty ratio; student:overall staff ratios
Innovation	Prof dev budget as % of expenses; Technology budget as % of expenses
Commitment to financial security	Endowment value Endowment value per student
Student Outcomes – overall success of mission	Persistence and graduation rates in college

Table 2: Proposed table of indicators for Journeys School of Teton Science Schools.

<b>Category</b>	<b>Measurement</b>
Market perception of school success	Number of applications per acceptances
Stability and confidence of school	Student attrition
Constituent loyalty	% of total of each constituency that gives (Alumni %, Parent %, Trustee %)
Competitiveness in attracting the best teachers	Faculty salaries (Highest, median, lowest)
Affordability	% one year change in tuition; average tuition
Socio-economic diversity	% financial aid of budget; % students on financial aid; average financial aid amount as percent of tuition
Efficiency	Student:faculty ratio; student:overall staff ratios
Innovation	Prof dev budget as % of expenses; Technology budget as % of expenses; average hours of professional development done per faculty per year.
Commitment to financial security	Endowment value Endowment value per student
Environmental Commitment	% of total energy use that is renewable; estimated recycling rates by volume
Global Commitment	% of high school considered international students; % of staff holding foreign passports
Student Outcomes – overall success of mission	Two year – matriculation rate; Five year and seven year graduation rate; % alumni at year six that have engaged in humanitarian work;
Student Progress	Median ERB percentile norms; median SAT and ACT scores; average increase in per student in PSAT scores; average increase per student in percentile norms; average increase per student in scaled score; changes in high school scores on College and Work Readiness Exam between 9 <sup>th</sup> and 12 <sup>th</sup> grade.
School and Faculty Development	% of teachers undergoing peer review; % of goals completed
Faculty Satisfaction	% responding positively to satisfaction survey regarding school program; % responding positively to leadership of school
Parent Satisfaction	% responding positively to satisfaction survey regarding school program; % responding positively to leadership of school
Student Satisfaction	% responding positively to satisfaction survey regarding school program; average HSSSE scores for high school students

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