Teachers Using High Quality SLOs Improve Students’ Academic Achievement

Study supports using SLOs in educator evaluation and performance-based compensation systems, but cautions that quality is key.

BOSTON, MA, February 27 – As states and school districts increasingly use Student Learning Objectives (SLOs) in high stakes teacher evaluation and compensation systems to measure student academic growth, a new five-year study reports that high quality SLOs do improve teaching and bolster student growth.

The national SLO momentum has resulted in part because states and school districts receiving federal Race to the Top funding and federal waivers must include student academic growth as part of teacher evaluation. The problem has been fairness—that is, how to fairly measure student growth for all teachers, especially when only 20-25% of subjects and grades are covered by state tests. SLOs help solve this by providing a means of measuring growth that is not dependent on state tests and can incorporate multiple measures of student learning.

But until now only one other major study—CTAC’s evaluation of SLOs in Denver in 2004—has comprehensively examined the impact of SLOs on student achievement and teacher practice.

The new study, It’s More Than Money, conducted by the Community Training and Assistance Center (CTAC), analyzed 4,000 teacher-developed SLOs as part of a performance-based compensation initiative implemented from 2007-2012 in the Charlotte-Mecklenburg Schools (CMS) in North Carolina.

The initiative was supported by a U.S. Department of Education Teacher Incentive Fund (TIF) grant. It focused on improving student achievement and educator effectiveness in a select group of 20 high need schools. Key measures determining educator bonuses were SLOs and a Value Added Measure (VAM).

Overall, the study found that students of teachers with student learning objectives had growth rates significantly higher than students in a group of comparison district schools. This, despite the disruptions of recession-prompted budget cutting as well as turnover in school and district leadership.

While many factors beyond incentive pay contributed to this success, the most notable positive correlations link student growth to teachers’ use of SLOs. Early on, CMS leaders perceived the value of using the TIF initiative as a lever for making systemic changes—for example, for shifting emphasis from student proficiency to support and accountability for student growth—and SLOs supported that change in mindset and attendant organizational shifts.

In effect, SLOs put CMS teachers in charge of analyzing their practice in relation to student growth. As that happened, multiple elements of the system needed to be realigned to better provide the support that teachers identified as required for them to improve their knowledge and instructional skills.
Key SLO findings. The CMS analysis corroborates and expands on findings from the Denver study, which was also conducted by CTAC. It finds that:

- **SLOs contribute to statistically significant student gains in mathematics and reading.** Findings show statistically significant multi-year differences in growth rates between students of TIF-LEAP teachers with SLOs and students of comparison school teachers without SLOs. In math, the average growth rate for students in the TIF-LEAP schools is 12% greater than students in comparable district schools. In reading, that average is 13% greater.

- **SLO quality is key.** The higher the quality of a teacher’s SLO, the greater the likelihood that student academic growth objectives will be met. This statistically significant, positive association was found in elementary school math and reading as well as in middle school math.

- **Teachers grow annually in their ability to develop quality SLOs.** Year by year, teachers develop higher quality SLOs and more of their students reach growth targets. The relationship between quality and years of SLO teacher practice is statistically significant.

- **SLO success correlates with VAM findings.** Only teachers of tested subjects received a VAM score. The subset of those teachers who received a VAM bonus is more likely to have high quality SLOs.

“These findings are exciting because they show that SLOs help more teachers do a better job with more students,” says William J. Slotnik, executive director of CTAC and co-study author. “The CTAC study shows that quality SLOs are an effective means of tying teacher practice to student learning. That makes the case for including SLOs in educator evaluation and compensation systems. But careful attention must be paid to defining and supporting SLO quality.” As our report title indicates, meaningful reform is about more than money.

The findings also show that bonus pay matters to teachers but is less important to them than the support provided to improve their practice. “The teachers value the support they’ve received to think differently about planning and individualizing instruction, especially through the SLO process,” says CTAC senior associate and report co-author Maribeth Smith.

For a copy of the CTAC report, *It’s More Than Money*, go to:

www.ctacusa.com/morethanmoney.html
New CTAC Study Finds That High Quality SLOs Bolster Achievement

Policy Implications

CTAC’s new study, *It’s More Than Money*, expands on findings from CTAC’s 14 years of field-tested research on SLOs, underscoring the strengths that SLOs bring to teacher evaluation and compensation systems. The study also sheds light on how to craft federal, state and district policies that support successful implementation.

**Key Findings**—High quality SLOs provide:

- **Educator support and accountability**, the two core requirements of results-driven systems.
- **Measures of student growth in tested and non-tested areas**. SLOs are not dependent on state tests, can incorporate multiple measures of student learning, and can complement value added measures, student growth percentiles and/or commercial assessments.
- **Measures of teacher effectiveness**. SLOs create a fair and consistent way to measure the impact of classroom instruction, one that honors and supports teacher professionalism.
- **A vehicle for more effective use of professional development resources**. SLOs provide specific data on how to better focus and customize professional development.
- **A customizable structure that enables fairness and comparability**. The process is tailored to local needs and context and driven by educators themselves.

**Policy Implications**—Key issues for successful SLO implementation:

- **All the core elements of the SLO process matter**. Policies that exclude, for example, the instructional strategies component—a common flaw—undermine SLO effectiveness. Instructional strategies such as “differentiating instruction” are not a laundry list of activities. They are research-based concepts that prompt teachers to think deeply about the *why*—why differentiation is critical, for example—and to plan instruction accordingly. They support rigor and comparability—features as crucial for instructional practice as they are for assessments.

- **SLOs work best when integrated within a district’s instructional framework**. Such integration builds sustainability beyond the life of external resources such as Race to the Top funding. SLOs are the glue that binds key initiatives—Common Core implementation, data driven instruction, school improvement plans and teacher evaluation.

- **Like evaluation systems, SLOs must be educationally, statistically and politically valid**. This means they must make sense to people, highlighting the need to ensure that SLOs are done *with* rather than *to* teachers, and are tailored to meet local needs and priorities.

Fact Sheet: Student Learning Objectives (SLOs)

What are SLOs?

- Student Learning Objectives (SLOs) are evidence-based instructional objectives that teachers develop and implement for students for a designated time period.

- Based on teachers’ analyses of past student performance, SLOs involve front-end planning of the content and instructional strategies needed for students to reach growth targets, as well as decisions about measures to be used to gauge student progress.

Where did SLOs originate?

- SLOs emerged as an integral component of systemic reform in the Denver Public Schools more than a decade ago. When research conducted by the Community Training and Assistance Center (CTAC) showed positive results for teaching and learning, the Austin and Charlotte-Mecklenburg school districts began implementing and improving on SLOs.

- SLOs are now being implemented in numerous states and several thousand school districts. They are a cornerstone of new teacher and principal evaluation systems in New York State.

Why have SLOs gained momentum nationwide?

- A key reason: Where test scores are included in teacher evaluation as evidence of student growth—as is required in states with Race to the Top funding and/or NCLB waivers—SLOs address the problem of non-tested subjects and grades, i.e., those not tested by the state.

- SLOs apply to all teachers, since they involve using valid assessments (including state tests that measure growth) along with selected other evidence.

What is the evidence of SLO effectiveness?

- Just two comprehensive studies, both conducted by CTAC, analyzed SLO impact.
  - Denver 1999. In Denver’s high stakes environment, CTAC research showed that elementary, middle, and high school students whose teachers had high quality SLOs outperformed their peers on state and national standardized tests over a four-year period.
  - Charlotte-Mecklenburg 2013. CTAC research showed significant multi-year differences in reading and mathematics growth rates between students in schools using SLOs and students in comparison schools.

What are the key implications of CTAC’s SLO research?

- SLOs provide a methodology that links accountability and support. High quality SLOs work in tandem with classroom observations to more accurately understand learning and teachers’ contributions to that learning. They enable teachers, in collaboration with principals, to assess their strengths and weaknesses. Professional development can then be tailored to meet those needs.

- SLOs tie teacher practice to student learning and do so in ways that honor and motivate teacher professionalism. They conceptualize evaluation as something done with teachers, not to teachers. They focus the entire school district on teacher support and provide a roadmap for defining and directing that support.

- These benefits require effective implementation, including the use of validated rubrics to ensure high standards of rigor as well as to objectively measure levels of student attainment of learning goals.

For a copy of the CTAC report, It’s More Than Money, go to: www.ctacusa.com/morethanmoney.html
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Fact Sheet: Denver Public Schools and Student Learning Objectives

A trailblazing demonstration that linking what students learn to what professionals earn can be a major catalyst for systemic change that benefits both students and teachers.

CTAC has provided technical assistance and evaluation services in performance-based compensation to numerous school districts throughout the United States. These include two of the nation’s most significant examples of positive impacts of performance-based compensation: Denver Public Schools, 1999-2003, and now Charlotte-Mecklenburg Schools, 2007-2012.

Performance-Based Compensation in Denver

Co-sponsored by the Denver Public Schools (DPS) and the Denver Classroom Teachers Association, the four-year pilot focused on developing a direct link between student achievement and teacher compensation. As its centerpiece, teachers in the 16 pilot schools—13 percent of DPS schools and a cross-section of the district’s client and service base—developed two annual student learning objectives (SLOs), based on past student achievement and subject to the approval of the principal. Teachers received additional compensation if they met their objectives.

CTAC’s Role

CTAC provided five years of assistance to the Denver Public Schools. This included filling a dual role in Denver’s landmark initiative for teachers—providing the technical assistance to ensure a pilot of quality and integrity as well as researching the impact of the pilot on student achievement, teacher quality and systems change.

Results

1) Students whose teachers crafted high quality SLOs showed greater increases in academic achievement than students of teachers with lower quality SLOs. This holds true at all three academic levels—elementary, middle, and high school—and for all four years of the pilot, as evidenced each year by two major independent assessments, the Iowa Test of Basic Skills and the Colorado Student Assessment Program.

2) District capacity increased in teacher objective setting, relational use of student achievement and human resource data, professional development, teacher/administrator/community collaboration, fundraising and instructional alignment;

3) Comprehensive research findings on pilot impact were based on more than 4.4 million data points related to student achievement and were the catalyst for substantive mid-course corrections;

4) The successful pilot led to the district-wide compensation plan, now known as ProComp, which was approved by the teachers’ union by a 59% to 41% margin;

5) Approval of a $25 million tax increase by Denver voters by a 58% to 42% margin to support the costs of the new compensation plan; and

6) The initiative demonstrated that the focus on student achievement and a teacher’s contribution to such achievement can be a major catalyst for change—as long as the initiative also addresses the district factors that shape the schools. CTAC’s study of the initiative provided the evidence which helped lead to congressional approval of the Teacher Incentive Fund.

Community Training and Assistance Center (CTAC) is a national not-for-profit organization with a demonstrated record of success in the fields of education and community development. CTAC provides technical assistance, conducts research and evaluation, and supports public policy initiatives for state agencies, school districts and community organizations. CTAC’s staff is comprised of nationally recognized executives, educators, policy makers, researchers and organizers. CTAC’s partnership with education and community agencies has resulted in positive and long-term improvements in student achievement, teacher effectiveness, and organizational capacity.

Technical Assistance

In education, CTAC’s on-site assistance supports systemic education reforms and improvements in school districts serving diverse and at-risk populations. CTAC’s core initiatives focus on performance-based compensation, teacher and administrator evaluation, teacher preparation and development, school turnaround and district improvement, state-to-district assistance, and union-management collaboration. CTAC builds the capacity of school districts, unions and states to analyze the conditions that help or hinder performance, find their causes, and create and implement improvement strategies. CTAC’s technical assistance involves working on-site with teachers, parents, principals, students, administrators, boards of education, and community leaders, as well as with state education authorities.

CTAC is the nation’s leading practitioner and evaluator of Student Learning Objectives (SLOs), an anchor of the national strategy to incorporate student academic growth in both tested and non-tested grades and subject areas within educator evaluation systems. CTAC is widely recognized for its leadership in the areas of educator evaluation and performance-based compensation and has assisted numerous districts, states, unions and foundations, including serving as the technical assistance provider to Denver’s landmark Pay for Performance initiative and conducting the comprehensive study of the initiative.

CTAC’s initiatives in community development address the conditions and root causes of poverty through systemic change. CTAC supports community-based leadership by providing technical assistance to organizations through on-site assessment, training, mentoring and support. Groups that CTAC serves are diverse in race, language and culture. CTAC also provides assistance to community foundations, human service agencies, and others directly concerned with strengthening low-income communities.

Research and Evaluation

CTAC conducts research addressing critical issues in education and community development in order to improve practice and inform decisions at the local, state, and national levels. Recent studies have examined the impact of performance-based compensation for teachers, professional development for teachers, district-wide reform initiatives, state takeovers of urban school districts, federally approved school reform models, site-based management of schools, and nonprofit capacity.

Public Policy

In addition to framing and examining public policy issues, CTAC has supported public policy improvements at the state and national levels based on the needs of children and families by sponsoring special initiatives. For example, CTAC established the National Urban Reform Network, a broad-based collaboration of urban school districts and communities to inform national public policy in elementary and secondary education. Further, CTAC serves as a policy resource to the U.S. Congress, U.S. Department of Education, and state boards and departments of education.
William J. Slotnik, Founder and Executive Director, has overseen the growth of the Center into one of the nation’s foremost providers of technical assistance, evaluation services, and policy support in the fields of education and community development. CTAC annually assists more than 90 organizations, school districts and state departments of education. He has provided extensive assistance to state education agency leaders, superintendents, state and local boards of education, unions and leadership teams throughout the United States. Mr. Slotnik has guided and supported the development of replicable systems of assessment, evaluation, and accountability to determine the performance and effectiveness of school districts, school by school, classroom by classroom, teacher by teacher, and student by student. He has led technical assistance and evaluation initiatives nationally which address such issues as Student Learning Objectives (SLOs), teacher and administrator evaluation, systemic reform, compensation reform, professional development, state-to-school and state-to-district interventions, and transforming underperforming schools, as well as leadership development and organizational capacity in community-based organizations. Under his leadership, CTAC introduced SLOs nationally and is the leading practitioner and evaluator of SLOs for purposes of evaluation and/or compensation reform at district and state levels.

Mr. Slotnik has been the lead or co-lead author of many articles and evaluations including Pathway to Results and Catalyst for Change (the first comprehensive, longitudinal evaluative studies of the impact of performance-based compensation on student achievement, teacher effectiveness and systems change). He serves as technical expert to the Race to the Top funded states focusing on both tested and non-tested grades and subject areas, serves on the Carnegie Knowledge Network User Panel, provides briefings to members of the U.S. Congress, the U.S. Department of Education, state legislatures and departments of education, and the media.

Maribeth D. Smith, Senior Project Director, Professional Development, Curriculum and Instruction, is one the leading practitioners and evaluators of Student Learning Objectives (SLOs) nationally and has guided design team efforts in several districts across the country. She serves as lead evaluator and technical assistance provider within CTAC initiatives in educator evaluation systems, systemic reform, and performance-based compensation. Through her pioneering work with SLOs, Ms. Smith created the approach whereby student achievement data can be employed effectively within teacher evaluation systems and performance-based compensation systems for both tested and non-tested subjects. Her work was used in Denver, Austin and the Charlotte-Mecklenburg school districts to strengthen teacher practice through a focus on student data and achievement, and is now being utilized for teacher evaluations in New York State where CTAC is providing technical assistance on the statewide implementation of SLOs.

Ms. Smith was the co-lead author of a number of reports and evaluations including Tying Earning to Learning: The Link Between Teacher Compensation and Student Learning Objectives; Focus on Literacy: Professional Development Audit; Catalyst for Change (the summative Denver report on performance-based compensation); and New Directions in Christina (the summative report on systemic reform in Delaware’s largest district). She is one of the nation’s leading experts on school reform and redesign, pedagogy and evaluation, and instructional strategies to improve the student achievement of high-needs learners. Ms. Smith previously served as Associate Superintendent for Educational Planning and Development in Fremont Union High School District (CA) and she was honored as Curriculum and Instruction Administrator of the Year in California.