Teachers and Leaders Matter!

Using Student Growth Measures to Assess Effectiveness

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Educator Effectiveness Advisory Committee

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GEMS

- What experience can you recall that had to do with student growth and learning?
- How was the student growth manifested?
- What happened with the student growth/learning information?

Teachers and Leaders Matter!

• "Teachers are the single most important school-level influence on student achievement." Hanushek and Rivkin, 2010

• Leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school: Wallace Foundation, 2010

• What makes an effective teacher and an effective leader?

Highly Qualified vs. Highly Effective

- Moving away from highly qualified
- Highly effective requires more evidence and is more work!
- Definition of Effectiveness:
 - "Providing instruction in ways that will lead to high levels of student achievement" National Comprehensive Center for Teacher Quality
- And, effective teachers and leaders are expected to be accomplished in behaviors and actions that lead to higher levels of student growth and learning

So, what makes determining "effectiveness" so challenging?

- It requires knowing what we are looking for: **Standards**
- It requires knowing how we will measure performance to the standards: **Performance-based measures**
- It requires knowing what tools and measures will be used to gather evidence of effectiveness levels: <u>Multiple measures</u> <u>for determining effectiveness</u>
- It requires an "evaluation system that has as its ultimate goal —improve teaching and learning" Laura Goe, 2011

Utah's Evaluation Framework

State Board Rule R277-531 PEER

- What it does? Causes us to rethink how we evaluate teachers and leaders and to improve the tools we use for assessing teachers and leaders;
- It also includes student performance as a significant criterion among multiple measures in how we determine educator effectiveness.
- The Evaluation Framework requires LEAs to use student achievement results as a measure of teacher and leader performance, as well as include meaningful, regular observations of teacher classroom practice and administrator instructional leadership, with timely feedback for professional growth and learning

Create a Student Growth Workgroup

- Purpose for the Student Growth Workgroup: Build data systems that measure student growth and success, and inform teachers and leaders about how to improve instruction
- Sub-purpose: Create student growth data sets that assist in improving instruction
- This is a focus of the Educator Effectiveness Project and Utah's Promises to Keep Utah State Board of Education

What do we need to know about using student growth measures?

• Examine value-added models and student growth percentile models for the purpose of evaluating teacher and leader performance;

• Explore the challenges related to ensuring rigor and comparability for measuring student growth in non-tested grades and subjects

Focusing on Student Achievement: Choosing the Right Student Growth Model

Value – added models (VAMs)

- •Examines changes in scores over time
- •Determines how specific teachers or schools affect growth over time
- •Addresses the question to what extent can changes in performance be attributed to the specific teacher or school
- •Asks how is that change compared with the average teacher or school
- Is a complex statistical model
- •Takes into account student or school background characteristics and isolates the amount of learning attributable to a specific school or teacher
- •More growth than expected, the teacher or school is said to "add value"

Student growth percentile model

- •Examines the contribution of teachers to student growth (Student Growth Percentile -SGP)
- •Monitors the growth being made by students who scored below proficient in the prior year on standardized assessment
- •Evaluates the SGPs relative to proficiency targets called Adequate Growth Percentiles (AGP)
- •Uses a different type of statistical procedure to examine changes in student achievement for individual students compared with other students in peer group
- •Information is aggregated to the teacher level to produce an estimate of the teacher's impact on student learning

Value-added Models

- Ranks teachers in a district by contribution to student learning
- Three types of VAMs:
 - Gain score models: measure year to year change by simply subtracting the prior year score from the current year score and then averaging the gains for all students for that teacher's score
 - Covariate adjustment models: model current year test scores as a function of the prior year test scores and other student and classroom characteristics
 - Layered models (including the persistence model): model scores for multiple years in multiple subjects that may or may not include student background variables
- Complicated method of <u>predicting</u> a student's score on a test and giving the teacher a ranking when they either "added-value" because the student performed better than predicted or if not, then the teacher or school

Value-added Models

- Value-added requires use of prior year's achievement scores
- Student achievement test scores must be linked to individual teachers
- Student characteristics and information may be included (e.g., race, socioeconomic, special education, family background)
- Teacher data may also be included (e.g., years of experience)
- Uses two years of students' test scores and may take into account other student and school related variables and predicts the growth of the student

Student Growth Percentile Model

- Measure student growth by tracking the same students
- Answers the question: How much, on average, did the students' performance change from one grade to the next
- Assumes the measurement scales across grades are vertically linked (i.e., that student scores on different tests across grades are directly comparable and represent a developmental continuum of knowledge and skill

Non Tested Grades and Subjects

- It is easier to determine performance-based measurements using student growth models when standardized student assessment data are available
- Statewide tested grades and subjects afford large and robust data sets that can be used to measure changes in student academic achievement
- It is more challenging to develop fair, rigorous, and comparable measures of student growth when standardized achievement data do not exist
- Must be rigorous and comparable across classrooms and must be between two points in time Federal Register (Vol. 75. No. 150, Race to the Top) 2010

What other types of measures are needed to determine student growth in NTGS?

- <u>Student Learning Objectives (SLOs):</u> A participatory method of setting measureable goals or objectives, based on class, subject matter, baseline performance, and measurable gain during course of instruction.
- Can be based on teacher developed assessments or other assessments that are comparable across classrooms. Teachers set measurable expectations for learning, in collaboration with other teachers and the principal
- A rubric for SLOs can be created to help with consistency (like in Austin, TX)

Other types of NTGS measures...

- New or existing measures of student growth: This can include pre and post tests, portfolios assessments, benchmarked, interim, or unit assessments
- The goal for the assessment option is to increase the amount of comparable student learning data available for use in a broader system of educator effectiveness that differentiates and tailors professional development and improves student outcomes

Other types of NTGS measures...

- <u>Measures of collective performance</u>: Assess the performance of the school, grade, instructional department, team, or other groups of teachers
- These measures can take a variety of forms including school-wide student growth measures, PLCs collaboration achievement projects, and shared student growth percentile scores for coteaching situations
- Teachers in non-tested subjects are given the school-wide average for their student growth component, which is combined with the other scores (like observation measures)

For NTGS, it is recommended...

- Use existing assessment tools already available (the Center for Educator Compensation Research is developing a bank of assessments in grades, subjects, and languages not part of ESEA)
- Work with vendors to create a state bank of tests and test items
- Identify opportunities for collaboration with other states and LEAS to determine best practices and identify common assessments
- Engage in developing new assessments
- SEA should provide support for LEAs and maintain quality control by requiring districts to submit their plans and methods for developing growth measures for NTGS
- Whatever the model or method used, prioritize the work
- Make sure the models selected are fair and reliable, rigorous, and transparent.

The bottom line for student growth measures...

- Model and measures should provide useful information about effectiveness
- Those models that yield actionable information are most likely to contribute to improvements in teacher practice
- Standardized test scores provide little information about how to change practice
- Teacher and leader practice linked to multiple student outcomes is most actionable
- Teachers benefit from knowing how their specific practices resulted in student learning
- Create opportunities for teachers (and leaders) to examine outcomes in light of their practice Laura Goe, February 8, 2011

Questions?