

# A FRAMEWORK FOR EVALUATING STUDENT LEARNING OBJECTIVES

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# WHAT IS AN SLO?

- *SLOs are a process for measuring a teacher's contribution to student learning by establishing course goals that are aligned to state standards, operationalizing those goals through individualized student targets and measuring attainment of the goal by creating/selecting suitable assessments*
- SLOs should:
  - Be valid for their intended purposes
  - Produce reliable scores for teachers
  - Be closely aligned to the instruction occurring in the classroom
  - Be closely tailored to each student's initial performance
  - Be free of negative unintended consequences

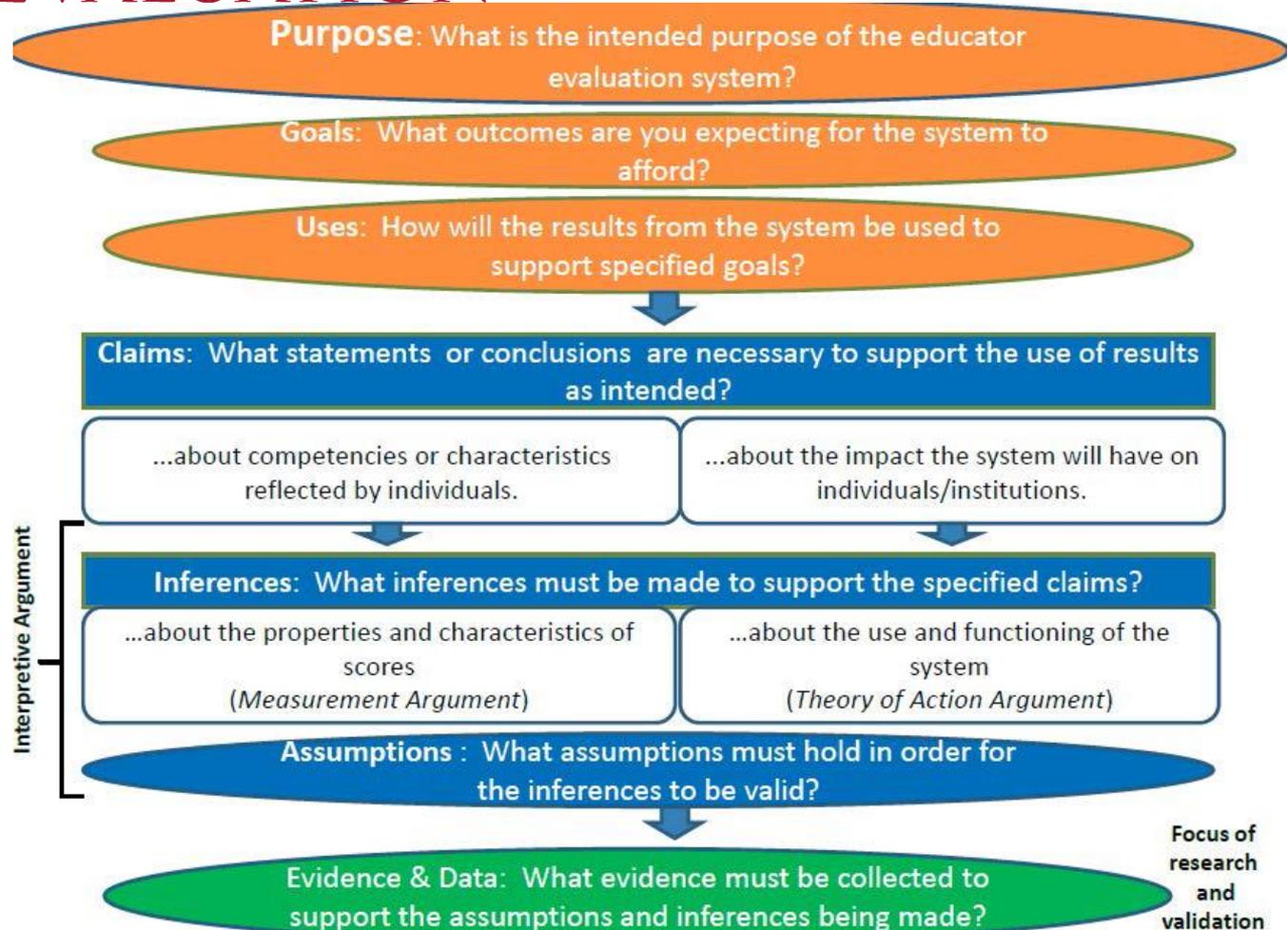
# WHY IS AN EVALUATION OF SLOs IMPORTANT?

- Practice has moved far ahead of research
  - SLOs count towards up to 50% of evaluation ratings for 70% of teachers in 30 states and districts
  - Lacking research on the validity of SLO scores for use in a high stakes teacher evaluation system (Lachlan-Hache, 2013; Harris, 2012; Tyler, 2011)
  - Campbell's law: "The more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor" (1975, p. 35).

# WHY IS AN EVALUATION OF SLOS SO DIFFICULT?

- Highly flexible in practice
- Expected to be more than a test-based accountability metric; intended to influence instructional practice
- Assumed to implicitly control for external factors though alignment to specific classroom goals/makeup
- And, of course...no true measure of a teacher's effectiveness

# HOW TO STRUCTURE AN EVALUATION



# PURPOSE, GOALS, AND USES

- Purpose
  - Provide a measure of a teacher's contribution to student learning in order to support high-stakes administrative decisions
  - Support good teaching practices among all teachers.
- Goal
  - Improve student learning by providing teachers with
    - (a) more targeted data on student performance on classroom goals, and
    - (b) tools such as goal-setting and backwards-planning with which to improve practice.
- Use
  - A teacher's SLO score is incorporated into a final teacher effectiveness rating, as a measure of her/his contribution to student performance
  - Principals provide feedback to teachers on SLO development and student attainment of the SLO

# SCORE-BASED CLAIMS

Student scores accurately measure student attainment of goal

1. The learning goal is represented in curriculum, covered by the teacher, and rigorous yet achievable
2. The student target is appropriate for documenting attainment of learning goal and requires comparable levels of rigor from the students across subjects/classrooms/schools/districts
3. The assessment(s) is/are aligned to the content and rigor of standards represented in the learning goal
4. There is clear criteria/rubrics to determine/grade student learning on the assessment.

# SCORE-BASED CLAIMS

Teacher scores accurately and reliably measure teachers' contribution to student growth

1. Classification of teachers based on SLO scores aligns with other measures of teacher effectiveness
2. Student attainment of learning goal is not biased by student, classroom or school factors outside of a teacher's control
3. Classification of teachers based on SLO scores is stable over time

# SYSTEM-BASED CLAIMS

SLOs have a positive influence on teaching and learning

1. Teacher instruction improves due to SLO implementation
  - a. Learning goal help teachers focus on main topics of curriculum
  - b. Teachers appropriately differentiate instruction given different student learning targets
  - c. Teachers modify/alter instruction if students are off target
2. Student learning improves due to SLO implementation

# SYSTEM-BASED CLAIMS

System-wide negative unintended consequences of SLOs are minimized

1. Does not negatively disadvantage teachers working with certain types of students
2. Does not lead to a narrowing of the curriculum
3. No evidence that goals are made easier over time
4. Attrition of teachers –specifically those in schools serving disadvantaged populations – does not increase

# EXAMPLE: GEORGIA

## Key components of system

- Will be used for 70% of teachers in non-tested grades and subjects, counting towards 50% of evaluation
- 20% of teachers will have both SLOs and Mean Growth Percentiles (MGPs)
- Focus is on student growth over the duration of the course
- Different target types and assessments used within and across districts
- Assessments are administered and graded by teachers

# EXAMPLE: GEORGIA

Claim: Teacher SLO scores are valid and reliable

Evidence:

- What is the relationship between SLOs and MGPs and is it sensitive to the type of/stringency of target used or the assessment administered (*assumption 1*)?
- How does the relationship between teacher SLO scores and student demographics compare to the relationship between MGP scores and student demographics (*assumption 2*)?
- Are teacher-level SLO scores stable over time (*assumption 3*)?
- Is there evidence of score manipulation due to teachers grading own assessments (*negative unintended consequence*)?

# APPLYING FRAMEWORK IN YOUR STATE/DISTRICT

- In the next presentation, Scott will discuss how to tailor this framework to your specific uses and prioritize the studies you conduct
  - Be explicit about specific goals/intended uses
  - Consider validity in terms of scores and system impact
  - Don't forget about utility
- In order to carry out the studies, will need to think carefully about:
  - Types of data required for evaluation
  - Appropriate methods to examine the data
  - Criteria to evaluate the findings
- Remember, use results in a formative manner to continuously improve system

# QUESTIONS?

*“Given the stakes involved and the potential for systematic biases in estimates of teachers’ contributions to student growth, it is essential that test-based teacher evaluation systems be rigorously evaluated.”* (Shepard, 2012, p. 34)

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# SELECT REFERENCES

Hall, E. (2014). A Framework to Support the Validation of Educator Evaluation Systems. Paper presented at the annual meeting at the National Council on Measurement in Education.

Harris, D. N. (2012). How do value-added indicators compare to other measures of teacher effectiveness? Carnegie Knowledge Network, Issue Brief 5.

Hill, H. C., Kapitula, L. & Umland, K. (2011). A validity argument approach to evaluating teacher value-added scores. *American Educational Research Journal*, 48 (3), 794-831.

Lachlan-Haché, L., Matlach, L., Reese, K., Cushing, E., Mean, M. (2013). Student learning objectives: Early lessons learned from the Teacher Incentive Fund. Washington, DC: American Institutes for Research.

Shepard, L. (2012). Evaluating the Use of Tests to Measure Teacher Effectiveness: Validity as a Theory-of-Action Framework. Paper presented at the annual meeting at the National Council on Measurement in Education.

Slotnik, W., Smith, M. D., Helms, B. J., and Qiao, Z. (2004). *Catalyst for change: Pay for performance in Denver final report*. Boston, MA: Community Technical Assistance Center. Retrieved from <http://www.ctacusa.com/PDFs/Rpt-CatalystChangeExecSumm-2004.pdf>

Slotnik, W., Smith, M. D., Helms, B. J., and Qiao, Z. (2013). *It's more than money: Teacher Incentive Fund – Leadership for Educators' Advanced Performance Charlotte-Mecklenburg Schools*. Boston, MA: Community Technical Assistance Center.

Tyler, J. (2011). Designing High Quality Evaluation Systems for High School Teachers: Challenges and Potential Solutions. Center for American Progress. Retrieved from <http://www.americanprogress.org/issues/education/report/2011/11/29/10614/designing-high-quality-evaluation-systems-for-high-school-teachers/>

# Student Learning Objectives: Georgia's Approach

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# Georgia's Effectiveness Systems

## Teacher Keys Effectiveness System

- Student Growth – 50% of Teacher Effectiveness Measure (TEM)
  - SGPs and SLOs

## Leader Keys Effectiveness System

- Student Growth – 50% of Leader Effectiveness Measure (LEM)
- Achievement Gap – 20% of Leader Effectiveness Measure



# Theory of Action

If educators have a clear understanding of growth needed for students to become proficient in a year's time, and

If educators are provided trustworthy data with respect to the academic growth of students, then

Educators will have a deeper understanding of the real extent of student learning in classrooms, schools, districts, and the state.

Also, then, students and their parents will have a clearer understanding of growth needed to reach proficiency and beyond, and

Student learning and achievement will increase in Georgia.



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# SLOs in Georgia

**District-wide** measurable, long-term academic SMART goals set to determine student growth.

Districts determine the growth measure and target for each SLO course.

Assessment measures may be locally, regionally, or commercially developed.

Georgia audits and approves district SLOs and their supporting documents.



# District Focus Rationale

- Allows for district autonomy
- Ensures same standardized assessments within a district
- Establishes consistent growth targets by course
- Provides data to support district–focused continuous improvement cycle
- Minimizes HR entanglements



# District Focus Rational

SLO implementation...

- Encourages continuous improvement
  - Assessments may be revised each year
  - Growth targets may be revised each year
  - Growth targets may be revised after pre-assessment data is gathered
- Supports all school improvement initiatives
- Improves instructional practices and student achievement



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# SLO Concerns

- Is district assessment literacy capable of supporting the SLO assessment development process?
- Are SLO assessments measuring what they are intended to measure?
- Are growth targets being set appropriately?



# District Driven Process

- Did your district rewrite or revise any pre-assessment and/or post assessments prior to the 2013-2014 school year?

Answer Choices	Responses
No, we used the exact same assessments	0%
Yes, we revised the PDAs	36%
Yes, we developed new district assessments for most courses	64%



# District Driven Process

- How did you modify your growth targets after reviewing the SLO attainment and target diagnostic data?

Answer Choices	Responses
Lowered the growth targets based on the data	66%
Raised the growth targets based on the data	13%
The growth targets were appropriate based on the data and no change was needed	21%



# District Driven Process

- What was the predominate type of growth targets used in your district during 2012-2013 school year?

Answer Choices	Responses
Individual growth formula (% of potential growth)	81%
Tiers based on the pre-assessment data	19%



# District Driven Process

- After a review of the SLO attainment and target diagnostic data and a full year of SLO implementation what will be the predominate type of growth target utilized in your 2013-2014 SLO statements?

Answer Choices	Responses
Individual growth formula (% of potential growth)	94%
Tiers based on the pre-assessment data	6%



# Priorities and Next Steps

- Continue to improve instructional practices and student achievement
- Ensure the integrity of the GaDOE Assessment Development Process
- Utilization of high quality SLO assessments
- Refinement of district-determined growth targets
  - Data-driven decision making
  - Rigorous yet realistic



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# Importance of Quality SLO Measures

“If properly implemented, student learning objectives help teachers bring more science to their art, strengthen instructional support to the classrooms, and improve the quality of the outcome.”

William J. Slotnik, Community Training and Assistance Center



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# Beginning to Do the Work: Evaluating Your SLO System



**SCOTT MARION  
CENTER FOR ASSESSMENT**

**NATIONAL CONFERENCE ON TEACHER  
EFFECTIVENESS ANNUAL MEETING**

**APRIL 23, 2014**

# But Where Do We Start?

2

- In her terrific 1993 chapter on validity, Lorrie Shepard suggested addressing three questions to get started:
  - ✦ *What does the testing practice claim to do?*
  - ✦ *What are the arguments for or against the intended aims of the test?*
  - ✦ *What does the test do, other than what it claims for good or for bad?*



# Substituting for SLOs

3

1. *What does the SLO system claim to do?*
2. *What are the arguments for or against the intended aims of the SLO system?*
3. *What does the SLO system do, other than what users claim, either for good or for bad?*



# But first...

4

- What are the main goals, purposes, and intentions of your SLO system?
  - Once you clearly name these, identify those with the highest priorities to:
    - ✦ Stakeholder interests
    - ✦ Areas of concern
    - ✦ Likely payoff
- Focus your adaptation of the general framework that Katie shared on these highest priority purposes and goals



# *What does the SLO system claim to do?*

5

- What do you, as educator evaluation leaders, claim that the SLO system does?
  - The general framework that Katie shared offers some very good examples of claims for an SLO system
  - The claims can be written as specific propositions to be empirically evaluated



# *What are the arguments [claims] for or against the intended aims of the SLO system?*

6

- Once you've identified your highest priority purposes and goals,
- Consider your claims, like those found in the general framework, and posit counter-claims or potential arguments against the goals of your test...in other words, try to refute your own argument
- For example...
  - *High student scores on SLOs accurately reflect students' knowledge and skills OR*
  - *High student scores on SLOs are confounded by performance targets that are likely set too low*



# *What does the SLO system do, other than what it claims, for good or for bad?*

7

- This is a consequential question, which is an important source of validity evidence
- Good validity evaluations search for evidence of both intended positive and unintended negative consequences
  - Unfortunately, unintended negative are more common
  - It is important to hypothesize about all the things that could go wrong and collect evidence about the highest priority potential negative consequences as part of data collection efforts



# From Argument to Plan

8

- You can only evaluate the interpretative argument if you carry out specific studies
- The validity evaluation plan will help states and districts organize, select, and prioritize the studies to best fit the particular argument



# Suggestions for focusing the questions

9

- Do the studies provide evaluative information about the highest priority purposes of the SLO system?
  - Have studies been selected that are central to the state's or district's premise of how SLOs operate (i.e., the theory of action)?
- Describe how the prioritized studies maximize the potential “information value.”
  - Consider prioritizing studies that provide new and important information rather than those that confirm what you already know
- Provide a rationale of how the studies cohere in that the collective results can contribute to a comprehensive evaluation of the SLO system
- Let's not forget the costs of doing the studies



# The Validity Evaluation Plan

10

- You can't do it all and you won't do any of it without a plan!
- Creating a plan should be an iterative exercise along with prioritizing the specific studies
- Completing the plan will help the planners articulate how the prioritized studies best fit together
- We can go into much more detail, but won't today. Now, let's get started....



# Working with your colleagues, please articulate

11

- 1. What are the main goals, purposes, and intentions of your SLO system?**
2. What do you claim that the SLO system does?
3. What are the arguments [claims] for or against the intended aims of the SLO system?
4. Now, try to think of some studies that would meet our “information value” criterion

