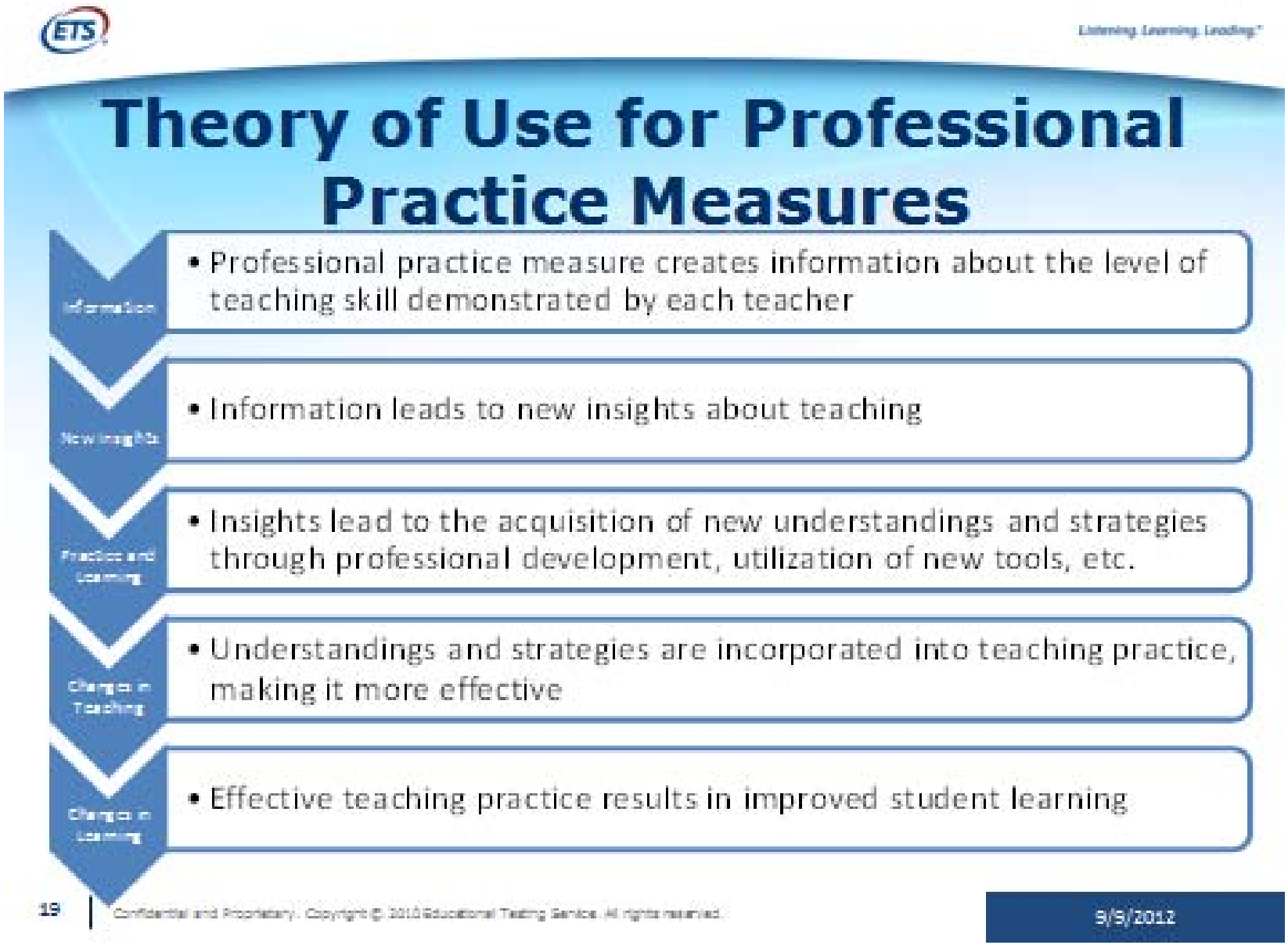
ETS
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Theory of Use for Professional Practice Measures
Information
• Professional practice measure creates information about the level of teaching skill demonstrated by each teacher
New Insights
• Information leads to new insights about teaching
Practice and Learning
• Insights lead to the acquisition of new understandings and strategies through professional development, utilization of new tools, etc.
Changes in Teaching
• Understandings and strategies are incorporated into teaching practice, making it more effective
Changes in Learning
• Effective teaching practice results in improved student learning
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Table 1. Theory of Professional Practice Score Use, Interpretive Argument and Exemplar Analyses for the Improvement of Teaching, Applied to Observation Protocols

Theory of Use	**Interpretive Argument**	**Exemplar Analyses**
Professional practice measure creates information about the level of teaching skill demonstrated by each teacher.	IA1. The scoring rule is appropriate.	• Assess the overlap between score point descriptors. • Assess the clarity of scoring criteria (e.g., Can observers tell the difference between some and most? Between high-level questions and mid-level questions?). • Assess the degree to which observers use all the score points and whether that is reasonable given other knowledge of variation in teaching performance. • Assess the degree to which the distribution of scores matches other knowledge of variation in teaching performance.
	IA2. The scoring rule is applied accurately and consistently.	• Assess the degree to which observers and master observers' scores on the same lessons match. • Assess the degree to which two observers scoring the same lesson assign similar scores.
	IA3. The scoring is bias free.	• Investigate the assignment of observers to teachers and the assignment of double scoring observers. • Assess the degree to which similarities and differences across various groups of teachers (e.g., by grade level, subject area, race, school) are appropriate. • Compare scores of observers when they are scoring within or outside of their subject areas.
	IA4. The data fit the scoring model.	• Conduct factor analyses on scores to determine consistency between theorized domains and empirical domains.
	IA5. The sample adequately represents the quality of all relevant lessons.	• Investigate the sources of variation in scores (e.g., observer, lessons, time of year) through analyses such as g-studies. • Analyze how many lessons one would need to observe to have a reliable estimate for one year. (This presumes one is generalizing to all the teaching in a single section of students.) • Determine how many different classes one might need to observe for a stable estimate. (This presumes one is generalizing to all the teaching a teacher does across groups of students.) • Investigate the degree to which scores vary over school years.
	IA6. The score on all lessons is related to the teaching quality teachers and students are able to enact.	• Assess the correlations among measures designed to measure related constructs (e.g., student reports of teacher practices and observer reports of teacher practices). • Assess the degree to which teachers identified in the tails of the observation distribution (e.g., top 10%) are in similar locations on other measures' distributions.

	IA7. There are not systematic errors that undermine the extrapolation to teaching quality.	• Investigate the influence of systematic errors (e.g., the influence of curriculum, the sorting of students to teachers, the sorting of teachers to students, grade level teaming, co-teaching).
Information leads to new insights about teaching	IA8. Stakeholders understand the information the system produces.	• Investigate evaluators' and teachers' perceptions of what they learned from the information the system produced. • Assess the degree to which scores nominate the same areas of strength and weakness nominated on non-observation measures.
	IA9. Insights are appropriately and accurately related to the system information.	• Investigate the degree to which evaluators' written and verbal feedback was accurate and appropriate. • Analyze the focus and frequency of specific insights of evaluators and teachers. Compare to expert analyses of patterns in the information.
	IA10. Insights are actionable.	• Analyze the degree to which insights are consistent with research literature on productive feedback. • Investigate the degree to which teachers perceived they knew what to do with the insights generated.
Insights lead to the acquisition of new understandings and strategies, through professional development, utilization of new tools, etc.	IA11 The implications associated with teaching performance are appropriate.	• Share videos of performance at different points in the score distribution and investigate the degree to which stakeholders view the implications associated with those score points as appropriate (e.g., a person with a representative video that shows poor classroom management performance is required to attend classroom management workshops for the school year).
	IA12. The properties of the observed scores on the lessons support the implications associated with the judgments of teaching performance.	• Investigate the stability of scores over student populations, grade levels, and subject areas. • Conduct analyses that specify misclassification errors and levels of uncertainty.
	IA13. Stakeholders link insights with appropriate tools, learning opportunities, etc.	• Investigate the alignment between the tools and professional development activities teachers engage and their areas of demonstrated strength and weakness.
	IA14. Learning opportunities and resources are appropriate and of sufficient quality to support teacher learning.	• Analyze the prevalence, coherence, timing, and quality of professional development opportunities available to teachers. • Analyze the content and learning goals of professional development opportunities available to teachers. • Analyze the content and utility of district resources available to support teachers' development (e.g., investigate curriculum supports, pacing guides, etc.).

Understandings and strategies are incorporated into teaching practice, making it more effective	IA15. Organizational context supports incorporation of new understandings/strategies.	• Identify teachers who have improved on specific dimensions and investigate what they did to improve. Compare to non-self report measures. • Investigate teachers' perceptions about the support for their implementation of new understandings and strategies.
	IA16. Changes in teaching practice substantively align and are attributable to use of resources/professional learning.	• Investigate stakeholders' perceptions of what they have learned, to what degree they have implemented their learning, and what impact implementation has had on their practices. • Conduct logical analyses that document other sources of influence on changes in teaching practices. • Randomly assign teachers with similar needs to different professional development/resources and study changes in teaching practices.
Effective teaching practice results in improved student learning	IA17. Measures of student learning are sensitive to changes in teaching practice.	• Investigate the degree to which measures of student learning are sensitive to known differences in teaching practice. • Investigate the relationship between changes in student learning and changes in scores on teaching practice measures at different points of proficiency for the teaching practice measures.
	IA18. Changes in student learning are attributable to changes in teaching practice.	• Investigate the degree to which other measures one would expect to reflect changes consistent with improved effectiveness actually demonstrate the theorized changes (e.g., observation scores, self-reported proficiency, student surveys around specific practices, VAM, etc.). • Analyze the degree to which changes in various measures of the teacher evaluation system predict student learning.