



Measurement Challenges

Edward Haertel
Committee Member

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Overview

- Multiple purposes
- New constructs
- Curriculum-neutral assessment?
- Performance assessment challenges
- Infrastructure
- Multiple information sources
- Comparability

Assessment Purposes

- **Formative**
 - frequent
 - used by teachers
 - informal
 - fine-grained
 - rich score reporting
 - curriculum-embedded
 - student-level
- **Summative**
 - annual
 - external, secure
 - objective
 - thin sampling
 - few scores
 - curriculum-neutral?
 - student-, school-, classroom-level?

New Constructs

- Breadth of domain
 - Integrating the three dimensions
 - 8 practices, 7 x-cutting concepts, 13 core Ideas
 - Incorporating Engineering, Technology, and Applications of Science (ETS)
- Developmental progressions
- Structure of multiple score reports?
 - *(NTSS may help clarify)*

Curriculum-Neutral Assessment?

- **Fundamental challenge**
 - Reasoning must be *about* something
 - Different curricula will use different exemplars
- **Available strategies are imperfect**
 - Package knowledge, context with items
 - Constrain curriculum
 - Allow for choice of assessment tasks

PA Challenges

- Logistics
- Memorability
 - testing windows
- Comparability
 - task- vs. construct-centered rubrics
- Objectivity
- Equity
 - sensitivity to prior curricular choices
 - reliance on reading/writing

Infrastructure

- Performance Assessments
 - Physical space? Equipment?
- Technology
 - N of workstations? Common platforms? Connectivity and bandwidth?
- Available knowledge representations
- Teacher Preparation
- Curriculum Materials

Multiple Data Sources

- integrate curriculum-embedded with large-scale assessments?
 - timelines; growth over time
 - “method” variance
- matrix-sampling and individual score reporting
- risks in mingling assessments for accountability versus instruction

Comparability

- across reporting levels, granularities
- across grade levels
- across curricula
- across years
- across demographic groups
 - assuring and promoting equity

Thank you