Next Generation Accountability Systems

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Next Generation Accountability Systems

- Orientation to Accountability
- Demands different vision
- Relies deeply on measures rather than “data”
- Not incremental view
Accountability Criteria and Principles

• Distributed
• Parsimonious
• Balanced
• Trustworthy
• Fair
• Learning-focused
• Adaptable
• Changeable
Mismatched Practices, Methods, & Inferences

- Assumes an identifiable, narrow and stable set of responsible parties (school level)
- Treats schools as fixed entities when many are subject to turbulence
- Excludes important functions, e.g., personnel selection and training (district)
- Underestimates student independence & agency
- Presumes knowledge to improve learning is distributed
- Uneven standards
- Few systems are subjected to even partial evaluation
Litany continued: Mismatched Practices, Methods, & Inferences

• Uses inadequate measures, inappropriate psychometrics, and poor standards of performance
• Makes untenable interpretations of cohorts
• Longitudinal “growth” depends on fixed conceptions of outcomes
• Constrains focus to content or archival records rather than the integration of learning
• Emphasizes subgroup differences
• Measures are treated as fungible
Assessment & Measurement

...Miles to Go...

Notional goals for assessment systems

- Trustworthy communication of relevant results
- Inferences appropriate for purposes:
  - Learning, accountability, improvement, public
- Assessment is valuable & motivating
- Methods connected to academic and applied realities
- Participatory
- Multiple points of entry
Notable shortcomings

- Lacking rich and deep content
- Appropriate cognitive demands
- Linguistic characteristics
- Relevance to standards
- Continuity
- Transparent
- Appropriate tasks
- Purposively sampled
- Fair
- Methodology to assure quality
Context and Constraints

- International competition and acceleration
- Economic peril and potential
- Age of rapid change—21st Century roller coaster
- Distributed responsibility for complex tasks
- Technology and individual choice
- Mix and mash
Educational Context

- Diminished middle class support for urban schools
- Teaching as a profession
- University preparation for teaching
- Growing diversity
- Increased drop out
- Finances
Constraints on Accountability

Vision

• Burden for improvement not to be borne exclusively by accountability system
• Choices of levers, controls, or opportunities or combination
• Cost
• Risk assessment and abatement
• Leadership
Vision of Accountability Criteria

Balanced

- Who participates
- What counts as evidence
- How obtained and valued
- External / internal loci
- Fixed / changing system
- Common / choice elements
Accountability Criteria

• Flexible
• Changeable without punishment
• Wholly owned by all participants
Accountability Measures and Indicators

- Embedded in content and situations
- Teachable
- 21st Century cognitive skills
- Meaning (declarative, procedural, systemic knowledge)
- Transfer
- Situational awareness
- Risk taking
21st Century Skills

- Adaptive problem solving
- Fluent procedural learning
- Sophisticated search
- Communication
- Teamwork
- Metacognition
CRESST Focused Reform

- Content Understanding
- Situational Awareness
- Risk Taking
- Teamwork and Collaboration
- Adaptive Problem Solving
- Communication
- Metacognition
Measures

• Need scalable, intermediate measures rather than inductive inferences
  • For classroom practice
  • Student learning and motivation
  • Seamless data collection and synthesis for quick feedback

• Included in disciplinary, multidisciplinary academic or situational settings
  • Evidence of instructional sensitivity
  • Psychometrics follow not lead requirements
A Big Idea

Accountability needs to monitor and support the learning of individuals
Implications for Learning and Instruction

- Individual, partially planned student sequences rather than post hoc trajectories from groups
- Close up monitoring of progress
- Same for teachers
- New kind of teaching with a range of different supports
- Honoring and enabling choice by secondary school students of outcomes and connected proficiency measures
Benefits

Motivation to be part of system

• Engagement of the person rather than as cog in the data provision machine
• Differential preparation without tracking; myriad of possibilities
• Students and teachers deeper participants in their own learning
• Opening the school to other sources of expertise and engagement
Work Ahead

Find balance between common and unique paths and outcomes

- Legitimate “qualifications” including the arts and performance, career and academics, foundational and applied situations
- Mitigate costs by using technological frames (reusable) for design administration, scoring of outcomes
- Maintain sufficient structure in schools for guidance needed for emerging adults
- Phasing may draw credibility and interest, e.g., health science or environmental fields as first places
Structural Readjustments

• Accountability for kids
• Accountability for systems, including teacher preparation and selection
• Rethinking optimal mobility for educators
• Accountability for schools as structure
• Portability of intentions, progress and outcomes
Technical Requirements (partial list)

• Accountability needs rebalancing
• Opening up so that learning will continue to open up in school instead of only outside
• Measures and individual choice and responsibility
• Now, for there is no good reason not
Algebra Ontology

Big Ideas:
- Rational Number Equivalence
- Solving Equations
- Properties of Arithmetic

- Variable
  - used in
  - shows equality between
  - maps
  - can represent

- Function
  - type of
  - Linear
  - Quadratic
  - Problem Solving
  - Real Events

- Expression
  - shows inequality between
  - used in

- Equation
  - can represent
  - applies to

- Inequality
  - plotted on
  - shows inequality between
  - used in

- Integer
  - type of
  - Number

- Rational
  - used to
  - collection of

- Number Line
  - plotted on

- Rational
  - used to

- Ratio Between Numbers
  - used to

- Measure Quantities
  - used to simplify
  - used to solve

- Sets
  - used to simplify
  - used to solve

- Objects
  - collection of

Properties of Arithmetic:
- Commutative
- Distributive
- Multiplicative
- Inverses
- Additive
- Associative
- Multiplicative
- Identity
- Additive

Examples
- Counter-Examples
- Proofs
- Models
- Conjectures
- Generalizations

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Policy and Political Will

• Rationale (drop out competitiveness teacher attention and improvement)
• Integrate the use of technology
• Opening doors to community deep participation
• Maintaining records of real progress of individuals
• Privacy
• Once again leadership
Now or Never

• Costs too great to falter
• Cannot subordinate ideas to constraints
• Change or roll over constraints
Summary

• Accountability needs rebalancing
• Opening up so that learning will continue to open up in school instead of only outside
• Measures and individual choice and responsibility
• Now, for there is no good reason not