The Promises and Challenges of Implementing Evidence-centered Design in Large Scale Assessment

Kristen Huff, College Board
Linda Steinberg
Tom Matts, College Board
NCME 2009
San Diego

khuff@collegeboard.org
Overview of Session

Domain Analysis
- Content
- Skills

Domain Model
- Claims
- Evidence
- ALDs

Assessment Framework
- Task models
- Form assembly specifications

Increasing specificity
Overview of Session

Domain Analysis
- Content
- Skills

Domain Model
- Claims
- Evidence
- ALDs

Assessment Framework
- Task models
- Form assembly specifications

Increasing specificity
Overview of Session

**Domain Analysis**
- Content
- Skills

**Domain Model**
- Claims
- Evidence
- ALDs

**Assessment Framework**
- Task models
- Form assembly specifications

Iterative

Increasing specificity
Why ECD for Advanced Placement?

Two challenges

(1) Incorporate contemporary notions of learning and assessment

(2) Ensure comparability of test forms
ECD

Evidentiary reasoning: Explicit and transparent

Domain Analysis
- Content
- Skills

Domain Model
- Claims
- Evidence
- ALDs

Assessment Framework
- Task models
- Form assembly specifications

Increasing specificity
Benefits of ECD for AP

(1) **Alignment of course and exam**

(2) **Explication of deep conceptual understanding and complex reasoning**

(3) **Foundation for comparable scores**

(4) **Structure for valid interpretation of scores**
Deep conceptual understanding and complex reasoning skills defined through claims, evidence and achievement level descriptions
Benefits of ECD for AP

(1) Alignment of course and exam

(2) Explication of deep conceptual understanding and complex reasoning

(3) Foundation for comparable scores

(4) Structure for valid interpretation of scores
Complex reasoning skills

- Organized, e.g., hierarchical
- Unambiguous language
  - Student knows….
  - Student understands…
  - Evaluate, analyze: synonyms
- Observable evidence
Observable evidence for reasoning skills

Claim: Student can **analyze** historical patterns…

Observable evidence of **analysis**:

Significant depth and quantity of historical information expressed as main concepts and subordinate details; disparate, relevant information brought together in persuasive argument; application of historical meaning in multiple contexts; clear, comprehensive and sophisticated thesis; recognition of relationships between various levels of abstraction juxtaposed together…
Observable evidence for reasoning skills

To design new kinds of situations for capturing the complexity of cognition and learning will require examining the assumptions and values that currently drive assessment design choices and breaking out of the current paradigm to explore alternative approaches to large-scale assessment – NRC, 2001
Benefits of ECD for AP

(1) Alignment of course and exam
(2) Explication of deep conceptual understanding and complex reasoning
(3) Foundation for comparable scores
(4) Structure for valid interpretation of scores
ECD: What is it?

Domain Analysis
- Content
- Skills

Domain Model
- Claims
- Evidence
- ALDs

Assessment Framework
- Task models
- Form assembly specifications

Increasing specificity
Benefits of ECD for AP

1. Alignment of course and exam
2. Explication of deep conceptual understanding and complex reasoning
3. Foundation for comparable scores
4. Structure for valid interpretation of scores
   - ECD’s transparent evidentiary reasoning = Kane’s (2006) interpretive argument
Challenges

• ECD requires resource investment up front
• ECD benefits are limited without proper infrastructure
• Terminology/jargon can be a barrier
• ECD requires fresh perspective on nature and role of evidence in assessment
khuff@collegeboard.org