Assessment of 21st Century Skills
Follow-Up Symposium

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National Research Council
Board on Testing and Assessment

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National Center for Research
on Evaluation, Standards, & Student Testing

Overview: Recap of January Workshop

- Why 21st century skills?

- What 21st century skills?

- Themes from January

- Assessment challenges

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Why 21ˢᵗ Century Skills

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From the Economic Side: It's a Flat and Changing World

- Technology & globalization

- Job growth concentrated in jobs that can't be automated:

  - ✓ *Professional, technical, managerial*

  - ✓ *Service jobs*

- Technology and knowledge explosion -> rapid change, lifelong learning

(Murnane, 2010)

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Preparation for Success in College

- It's not just academic knowledge

- Definition of college readiness:
  - ✓ *Key cognitive strategies*
  - ✓ *Academic content knowledge*
  - ✓ *Academic behaviors*
  - ✓ *Contextual skills*

Conley (2010)

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Assessing 21st Century Skills: January Foci

- *Cognitive skills: adaptive problem solving, innovation, systems thinking, critical reasoning*

- *Interpersonal skills: communication, leadership, collaboration, teamwork, cultural sensitivity*

- *Intra-personal skills: meta-cognition, self monitoring, motivation, persistence*

(NRC, 2009; 2010)

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January Workshop Agenda

- Background information on 21st century skills and measurement challenges

- Literature reviews for each cluster

  ✓ *Constructs constituting the cluster*

  ✓ *Domain general or specific?*

  ✓ *Modifiable, teachable, assessable?*

- Assessment examples for each cluster

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Themes Across Clusters

- Rich and longstanding and highly construct-specific research literatures surrounding each cluster

- Skills are teachable and assessable --- but NOT independent of content; transfer is not automatic

- Limitations of current practice and teacher capacity

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Agenda Today: Delve into Assessment Challenges and Draw Implications

- Sound measurement starts with close specification of *construct* and *purpose*

- Validity: extent to which assessment well serves purpose

- Multiple claims and sources of evidence, depending:

• Alignment	• Utility
• Accessibility/ Fairness	• Corruptibility
• Reliability and precision	• Comparability
• Relationship to other constructs	• Instructional Sensitivity
• Consequences	

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Assessment Panel

- Cognitive skills: Nathan Kuncel, University of Minnesota

- Inter-personal skills: Steve Fiore, University of Central Florida

- Intra-personal skills: Rick Hoyle, Duke University

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