AN OVERVIEW OF NAEP
What Is NAEP?

- National Assessment of Educational Progress
- Common yardstick of student performance across states and select large urban districts
- Congressionally mandated
What Is NAEP?

• Demonstrates what students know and can do in a variety of subject areas
• Designed to assess challenging content
• Newest assessment: Technology and Engineering Literacy (TEL)
What Is NAEP?

- Reports scale scores and achievement levels for student performance
- National, state and urban district reporting
What Are NAEP’s Goals?

• Report the condition of academic education across the nation
What Are NAEP’s Goals?

• Track trends in student performance over time
What Are NAEP’s Goals?

- Report on group-level student performance and contextual information on student learning
Who Is Responsible For NAEP?

U.S. Department of Education

Institute of Education Sciences (IES)

National Center for Education Statistics (NCES)

NAEP

National Assessment Governing Board
What Does NAEP Say About Student Achievement?

Grades 4, 8, 12

Trial Urban District Assessment (TUDA)
Which Districts Are In TUDA?
Which Districts Are In TUDA?

- Fresno
- Los Angeles
- San Diego
NAEP COMPARED TO OTHER ASSESSMENTS
NAEP Schedule

2014
National Civic
Geography
U.S. History
TEL (Grade 8)

2015
National State
TUDA
Math
Reading
Science

2016
National Arts
State
TEL (Grade 8)

2017
National State
TUDA
Math
Reading
Writing

2018
National Civic
State
TEL Geography
U.S. History

2019
National State
TUDA
Math
Reading
Science
NAEP In The News

Math Gains Add Up on National Testing

Scores for U.S. Eighth- and Fourth-Grade Students Continue to Show Improvements, but Reading Numbers Barely Budge

BY STEPHANIE BANCIER
Elementary-school students notched the highest scores ever on national math exams this year, continuing a 20-year trend of improvement, but reading scores remained lackluster, according to data released Tuesday.

The results reveal over how to achievement, with education advocates seizing on the gains in math, the data released Tuesday.

NAEP Schoolkids’ scores improve, but still don’t hit the mark

Mixed results for U.S. students in math, reading

They are making progress, but they lag in reading, national tests show. They are kept behind

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TRANSITIONING TO TECHNOLOGY
Why Is NAEP Making This Transition?

• Technology in Student Learning
• Advances in Cognitive and Learning Sciences
• Changes in Assessment Landscape
Use Of Technology In Schools

40% of public school teachers use computers for instruction

72% of schools use online student assessments

TRANSITION APPROACH
Transition Goals

Maintain Meaningful Trends

Leverage Technology to Improve Measurement
It Will Be A Balancing Act

- Maintain Meaningful Trends
- Leverage Technology to Improve Measurement
Transition Activities

- Existing Content
- Mode Change Study
- Technology-based Assessment
- Cog Labs, Play-testing Tryouts
- New Items, Item Types, Tasks

Study
Transition To Technology

2015: TBA
2017: 20% existing P&P content, 80% new TBA content
2019: 20% existing P&P content, 80% new TBA content
2021: 20% existing P&P content, 80% new TBA content
2023: 20% existing P&P content, 80% new TBA content

Legend:
- Green: existing P&P content
- Red: new TBA content
TEL: Wells Task

http://nces.ed.gov/nationsreportcard/tel/
OPPORTUNITIES
AND
CHALLENGES
Opportunities Within TBA

- Richer information about student performance
- Seamless, invisible accommodations
- Assessment content that reflects 21st century skills
Richer Information About Student Performance

- More authentic items and tasks to measure a broad range of knowledge and skills
- More in-depth understanding of what students know and are able to do
  - Capture information about student problem solving processes
Design For Accessibility

The National Assessment of Educational Progress is the largest nationally representative and continuing assessment of what America’s students know and can do.
“Rapidly changing technology is driving all aspects of modern life, including learning and assessment. NAEP should continue to serve as a leader in assessment innovation as new technologies become available for assessment…”
Assessment Content That Reflects 21st Century Skills
Grade 12 mathematics high-complexity items

- Students are expected to use:
  
  - reasoning
  - judgment
  - planning
  - creative thought
  - analysis

Assessment Content That Reflects 21st Century Skills
Challenges

• Digital divide
• Developing methodology that maintains trend while being innovative
• Requires increased level of both technical and logistical cooperation from districts and schools
2013 Mathematics And Reading

Welcome to The Nation’s Report Card!

- Explore interactive and dynamic graphics that illustrate the results of the 2013 mathematics and reading assessments.
- Test yourself with actual National Assessment of Educational Progress (NAEP) questions.
- Watch videos for tips on how to explore and interpret results.

Watch Video

Read the Executive Summary for a quick look at the results.
4th Grade Writing Computer-Based Assessment

Lessons Learned from the 2012 Grade 4 Writing Computer-Based Assessment (WCBA) Study

Computers are becoming increasingly important in today’s classrooms as tools for both teaching and learning, but little is known about the knowledge and skills of elementary students in large-scale computer-based writing assessments. The Grade 4 Writing Computer-Based Assessment (WCBA) study was conducted to determine if fourth-grade students could effectively demonstrate their writing knowledge and skills during a computer-delivered assessment.

The Grade 4 WCBA Study consisted of two parts:

- small-scale usability testing to inform development of the assessment platform for fourth-grade students; and
- a pilot writing assessment administered to a sample of 13,000 students nationwide.

Lessons learned from the study can inform future development of computer-based assessments as well as shed light on what fourth-grade students know and can do. Additionally, we were able to gain insights on fourth-grade students’ use of editing tools to compose their responses.

Note that the sample used in this study is not representative of the nation. The performance results only pertain to participants in the pilot study. Please use caution when interpreting these findings.

Click the buttons below to learn more about the study and its findings.
4th Grade Writing Computer-Based Assessment

In 2012, NAEP administered the Writing Computer-Based Assessment (WCBA) to around 13,000 fourth-grade students nationwide. The students were provided a laptop and headphones to fully engage with the computer-based assessment, which included video and audio. Students completed either two 30-minute writing tasks or three 20-minute writing tasks. The WCBA captured a snapshot of students’ abilities to develop, organize, and express their ideas to achieve a purpose and address a specified audience.

The tabs in this section describe lessons learned about fourth-grade students’ ability to write using the computer. Results are for students who completed two 30-minute tasks, unless otherwise noted. Student actions were also analyzed for the lowest performing 20 percent of students, the highest performing 20 percent of students, and the students performing in between.
NAEP Suite Of Online Tools
NAEP Suite Of Online Tools
MOVING FORWARD THROUGH INNOVATION
How Is NAEP Looking At The Big Picture?

Survey Assessment Innovations Laboratory (SAIL)

• Centralized research and development of assessment innovations
• Leverages emerging technologies in cognitive and learning sciences
• Guidance provided by national network of researchers and scientists
Survey Assessment Innovations Laboratory (SAIL)

- Three initial projects are underway
  - Assessing science using a virtual laboratory
  - Integrated measurement of reading, writing, and critical thinking skills in an immersive virtual environment
  - Capturing STEM constructs with virtual objects and manipulables
How Is NAEP Looking At The Big Picture?

NCES Integrated Assessment System (NIAS)
• End current “silO” approach
• Reduce burden on our survey participants and resources
• Effectively respond to needs of the new generation of stakeholders
CONCLUSION
Key Takeaways

- Balance between core function and innovation and technology
- Maintain NAEP’s reputation as gold standard
- Students of the 21st century deserve no less