

# National Assessment Governing Board Assessment Development Committee

**August 1-2, 2013**

## AGENDA

<b>Thursday, August 1, 2013 Closed Session</b>		
8:00 am – 1:45 pm	<p><b>ACTION:</b> Review of Secure Material for NAEP Assessments:</p> <ul style="list-style-type: none"> <li>• Technology and Engineering Literacy (TEL) <i>Lonnie Smith, ETS</i></li> <li>• Science Interactive Computer Tasks (ICTs) <i>Andrew Latham, ETS</i></li> <li>• Science Hands-on Tasks (HOTs) <i>Shu-Kang Chen, ETS</i></li> </ul>	Secure material provided under separate cover
<b>Friday, August 2, 2013 Closed Session</b>		
10:00 – 10:05 am	<p>Welcome, Introductions, and Agenda Overview <i>Alan Friedman, ADC Chair</i></p>	
10:05 – 11:45 am	<p><b>ACTION:</b> Continued Review of Secure Material for NAEP TEL and Science Assessments</p>	Secure material provided under separate cover
11:45 am – 12:10 pm	<p>2013 Technology and Engineering Literacy (TEL) Pilot Test: Update and Preliminary Observations <i>William Ward, NCES</i></p>	Attachment A
12:10 – 12:30 pm	<p>Update on Reporting Grade 4 Computer-Based Writing Information <i>Arnold Goldstein, NCES</i></p>	Attachment B
Information Item	<p>NAEP Item Review Schedule</p>	Attachment C



## Technology and Engineering Literacy Pilot Testing

As part of the 2013 NAEP administration, a large field trial was conducted for the Technology and Engineering Literacy (TEL) assessment. The field trial was designed to be similar to other field trials in subjects for which an entirely new framework is used. Specifically, the trial was designed to support both a detailed evaluation of the performance of items and tasks as well as how they relate to each other (e.g., through scaling and correlation-based analyses). This presentation provides preliminary findings from the field trial analyses and presents samples of student responses that exemplify some distinctions in patterns of performance. It concludes with a summary of the timeline for next steps in the TEL administration and reporting.

The analysis of item and task performance targeted two goals:

1. Individual item performance, including response time, to select the discrete items and assemble discrete item blocks for the 2014 assessment. Given the short time frame involved in preparation for the 2014 probe assessment, this analysis has been completed and was based on (observed) item responses.
2. Scaling to evaluate to what extent the relationships between the items and tasks reflect the various constructs defined and hypothesized in the TEL Framework. This involves both the core content domains (Design & Systems, Information & Communication Technology, and Technology & Society) as well as cross-cutting practices (Understanding Technological Systems, Developing Solutions & Achieving Goals, and Communicating & Collaborating). We are approaching this task in two ways: univariate scaling of the domains (completed) and bi-factor modeling of the constellation of domains and practices (for which we coined the term “competencies”).

The field trial also allowed for examination of patterns of performance within tasks, identifying characteristics of tasks that distinguish different levels of performance. This session will present several example solutions to items and tasks, illustrating the elements of performance that distinguish between low performers and high performers. Some interesting variations on the performances within tasks will be presented and discussed.

The session will close with a summary of the timeline for TEL, including the release of a second informational video on TEL, a publically available TEL assessment task, and upcoming dates for the 2014 probe administration and reporting.



## **Reporting on the 2011 Grade 4 Writing Pilot: Progress Report**

At the May Governing Board meeting, the Assessment Development Committee received an update about the upcoming 2011 Grade 4 Writing Pilot web report, which will disseminate lessons learned from the development and administration of the pilot assessment.

In order to summarize all of the facets of the pilot, NCES is preparing a technical memorandum that provides an overview of the study, its development, the test administration and outcomes. The technical memorandum will be the source for the information on the web and will be available to readers upon request.

The content for the website will be organized by questions of interest, such as:

1. How did we determine the W computer-based assessment (WCBA) platform for fourth graders?
2. How well did fourth graders interact with the computer-based assessment (CBA) for Writing?
3. How well did fourth graders perform on the WCBA?
4. What types of questions were administered to fourth graders on the computer?
5. How were accommodations administered on the computer platform?

The presentation to the committee will discuss some findings from the technical memorandum and will show more mock-ups of the website.

**Assessment Development Committee  
Item Review Schedule  
May 2013 – December 2013  
(Updated 6/25/13)**

Review Package to Board	Board Comments to NCES	Survey/ Cognitive	Review Task	Approx Number Items	Status
5/02/13	5/23/13	Cognitive	2015 Pilot SICTs (4, 8, 12)	8-10 alpha builds and 4 beta builds	✓
5/15/13	6/3/13	Survey	2014 TEL Probe (8)	46 items	✓
6/25/13* (via WebEx)	7/2/13	Cognitive	2015 Pilot Science ICTs (4, 8, 12)	8 alpha builds	✓
7/18/13	8/8/13	Cognitive	2014 TEL Probe (8)	20 Tasks 100 Discretets	Review at August Board Meeting
7/18/13	8/8/13	Cognitive	2015 Science HOTs (4, 8, 12)	9 tasks	Review at August Board Meeting
7/18/13	8/8/13	Cognitive	2015 Science ICTs (4, 8, 12)	9 beta builds	Review at August Board Meeting
8/13/13	9/3/13	Survey	2017 Pool Review Math (4, 8, 12)	131 items	
8/30/13* (via WebEx)	9/23/13	Cognitive	2015 Science ICTs (4, 8, 12)	7 beta builds	
9/27/13* (via WebEx)	10/18/13	Cognitive	2015 Science ICTs (4, 8, 12)	7 beta builds	
11/21/13	12/13/13	Survey	2015 Operational Reading (4, 8)	78 items	
11/21/13	12/13/13	Survey	2015 Operational Math (4, 8)	90 items	

\* Proposed date; not yet scheduled

NOTE: Alpha builds will be presented to the ADC during their in-person and virtual meetings. These will not be submitted before the review. The ADC will receive outlines and beta builds prior to the ICT review meetings. (Alpha and beta builds are the first- and second-draft versions of the rendered task, respectively.)