

National Assessment Governing Board

Assessment Development Committee

Report of March 4 – 5, 2010

March 4, 2010 **Closed Session** **9:00 a.m. – 1:00 p.m.**

In accordance with the provisions of exemption (9)(B) of Section 552b(c) of Title 5 U.S.C., the Assessment Development Committee (ADC) met in closed session on March 4, 2010 from 9:00 a.m. to 1:00 p.m.

Attendees: ADC – Kathi King (Chair), Alan Friedman (Vice Chair), Amanda Avallone, Doris Hicks, Henry Kranendonk, Kim Kozbial-Hess, Susan Pimentel, Oscar Troncoso; Governing Board Staff – Mary Crovo, Cornelia Orr, Michelle Blair; NCES – Suzanne Triplett, Eunice Greer, Elvira Germino Hausken, Jamie Deaton; NAEP/ESSI – Kim Gattis; ETS – Greg Vafis, Nicole Beaulieu.

The Assessment Development Committee (ADC) reviewed secure NAEP reading items for the 2011 operational assessment at grades 4 and 8. ADC members commented on the high quality of the items overall. Committee members also noted a number of items that measured challenging reading skills in the 4th and 8th grade item blocks. The ADC comments focused on making the language in some items more clear. The Committee approved the following motion in open session:

ACTION: The Assessment Development Committee approves the 2011 Reading operational assessment questions for grades 4 and 8, with comments and changes to the items to be transmitted to NCES in writing by March 10, 2010.

March 5, 2010 **Open Session** **9:30 a.m. – 11:15 a.m.**

Attendees: ADC – Kathi King (Chair), Alan Friedman (Vice Chair), Amanda Avallone, Doris Hicks, Henry Kranendonk, Kim Kozbial-Hess, Susan Pimentel, Oscar Troncoso; Governing Board Staff – Mary Crovo; NCES – Suzanne Triplett, Elvira Germino Hausken, Jamie Deaton; NAEP/ESSI – Teresa Neidorf; ETS – Jay Campbell, Greg Vafis, Dave Freund; WestEd – Senta Raizen, Edys Quellmalz, Steve Schneider, Mark Loveland, Jenn Verrier; Fulcrum – Paul Harder; Westat – Dianne Walsh, Robert Patchen; AIR – Fran Stancavage; HumRRO – Sheila Schultz; Pearson – Connie Smith; Hager Sharp – Joanne Lim; National Academy of Engineering – Greg Pearson; Education Daily – Emily Brown; National Society of Professional Engineers – Sarah Ogden.

1. NAEP Technological Literacy Framework

ADC Vice Chair, Alan Friedman, introduced the topic and expressed his excitement at this new assessment area for NAEP, and commended all those involved in the project for their excellent work on the framework. Senta Raizen and Edys Quellmalz of WestEd reported on the Technological Literacy Framework project. The framework has been edited based on the ADC comments from their November 2009 meeting. Additional input has been incorporated from public forums and written testimony. It was noted that this framework project has involved more than 2,000 groups and individuals on committees and in public forums. This is a record level of outreach for a Board framework project.

A new title for the framework is being recommended: Technology and Engineering Literacy. This new title will avoid confusion with the multiple definitions of technological literacy, and the new title will capture the broad nature of the content and skills reflected in the framework. In addition, the new title adds two more areas to NAEP assessments: technology and engineering. NAEP already tests science and mathematics. Therefore, NAEP will have assessments in all of the areas covered in the STEM acronym: science, technology, engineering, and mathematics. Finally, it was noted that “literacy” in the title conveys the importance of the content for all students, not just those pursuing technical careers.

As discussed at the Executive Committee meeting on March 4, 2010 the Board will be asked to change the target date for this assessment from 2012 to 2014. This delay was required due to the extended framework timelines to address complex and challenging issues in the framework development. NCES and NAEP contractors will also need additional time to develop and pilot the complex scenarios and tasks, all of which will be computer-based.

The next step, following Board action on the framework and title change, is to revise the draft document to incorporate the new title, new date, and to edit the framework carefully to reflect the new title. WestEd project staff will be working on these changes in March, with a plan to disseminate the revised framework in print and electronic version as soon as possible. Governing Board staff will carefully review the revised framework prior to its release.

The ADC commended the WestEd staff, the project committees, and Governing Board staff for a high quality framework document and a thorough development process. The ADC then unanimously approved the following motion.

ACTION: The Assessment Development Committee recommends that the full Board adopt the new title for the framework, Technology and Engineering Literacy, and adopt the framework document.

2. NAEP Technological Literacy Specifications

Senta Raizen and Edys Quellmalz provided an overview of the specifications for the assessment. This is the first draft of the document, which is being reviewed by the Board's Committee on Standards, Design and Methodology. NCES staff and NAEP contractors will also provide input on this draft. The later chapters of the draft focus on the unique item development requirements for this computer-based assessment. A number of sample scenarios and tasks are included in the document to illustrate the types of stimulus material and questions called for in the framework. ADC members commented on the thorough nature of the specifications and members will provide comments to the staff during the next several weeks. The document will also include a CD of illustrative tasks. Board action on the specifications is scheduled for the May 2010 Board meeting in Milwaukee.

3. Student Non-Response to NAEP Items

Dave Freund of ETS presented a detailed analysis of student response and non-response to NAEP 2009 mathematics items at 4th and 8th grades. The 2009 math data for these grades was previously released, so the ADC briefing was conducted in open session. The presentation included analyses showing different rates of response to multiple choice and constructed response items. For example, students scoring in the lower portion of the achievement distribution tended to have higher response rates to multiple choice than to constructed response items. For higher achieving students, there was little difference in their rate of response to multiple choice vs. constructed response.

The ADC members commented on the clear, detailed analyses presented by Mr. Freund. In some cases, the graphs depicted more than 600 data points on one page. However the visual displays were very clear and easy to understand, based on Mr. Freund's explanation. The Committee requested additional analyses be performed on student non-response to NAEP items using 12th grade data. This information will need to be presented in closed session at the May 2010 Board meeting, since those data will not have been released to the public at that time.

4. NAEP Item Review Schedule

Mary Crovo of the Governing Board staff briefed the ADC on item review activities for the spring and summer of 2010. The Committee will convene via teleconference several times in spring 2010 to review items, and will conduct an all-day review as part of the May 2010 Board meeting.

March 5, 2010 Closed Session 11:15 a.m. – 12:15 p.m.

In accordance with the provisions of exemption (9)(B) of Section 552b(c) of Title 5 U.S.C., the Assessment Development Committee (ADC) met in closed session on March 5, 2010 from 11:15 a.m. to 12:15 p.m.

Attendees: ADC – Kathi King (Chair), Alan Friedman (Vice Chair), Amanda Avallone, Doris Hicks, Henry Kranendonk, Kim Kozbial-Hess, Susan Pimentel, Oscar Troncoso; Other Governing Board Members – David Driscoll; Governing Board Staff – Mary Crovo, Michelle Blair; NCES – Suzanne Triplett, Eunice Greer, Elvira Germino Hausken, Jamie Deaton; NAEP/ESSI – Kim Gattis, Teresa Neidorf; ETS – Jay Campbell, Dave Freund, Greg Vafis; Westat – Dianne Walsh, Robert Patchen; HumRRO – Sheila Shultz; Hager Sharp – Joanne Lim; Pearson – Connie Smith; Fulcrum – Paul Harder; AIR – Fran Stancavage.

5. Update on Assessment Development Topics

- **Reading Vocabulary Scale** – Jay Campbell of ETS updated the ADC on analyses related to the 2009 Reading vocabulary scale. It has been determined that a scale can be developed, which will be a cross-grade scale spanning 4th, 8th, and 12th grades. A report on reading vocabulary is being planned for release in early 2011.
- **Science Hands on Tasks (HOTS) and Interactive Computer Tasks (ICTs)** – data are currently being analyzed from the 2009 administration of the NAEP science HOTS and ICTs. These tasks were given to a nationally representative sample of students in grades 4, 8, and 12. NCES and NAEP contractors are exploring some innovative methods to analyze and report student responses to these complex tasks.
- **Writing Computer-based Assessment** – Dianne Walsh of Westat briefed the ADC on the 2010 pilot at grades 8 and 12 of the new computer-based NAEP writing assessment. All reports from the field have been extremely positive in terms of student engagement and technical operations of the assessment. This is the first time NAEP is administering an entire subject area on a computer-based platform. Paul Harder of Fulcrum explained the back-up and recovery system used for the writing assessment software. Mr. Harder reported that there were no student writing files lost during the entire assessment. Additional information on the writing assessment will be shared with the ADC at the May 2010 Board meeting.

I certify the accuracy of these minutes.

Kathi King, Chair

Date