

National Assessment Governing Board

Assessment Development Committee

Report of May 13 - 14, 2010

May 13, 2010 Closed Session 9:00 a.m. – 3:00 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 May 13, 2010 from 9:00 a.m. to 3:00 p.m.

Attendees: ADC – Kathi King (Chair), Alan Friedman (Vice Chair), Amanda Avallone, Doris Hicks, Henry Kranendonk, Kim Kozbial-Hess; Governing Board Staff – Mary Crovo, Michelle Blair; NAEP/ESSI – Kim Gattis; ETS – Greg Vafis, Nicole Beaulieu; HumRRO – Steve Sellman.

The Assessment Development Committee (ADC) reviewed secure NAEP mathematics items in grades 4 and 8 for the following assessments: 1) 2011 operational assessment; 2) 2013 pilot assessment; and 3) 2011 special study of Knowledge and Skills Appropriate Items (or KaSA). The Committee noted the overall high quality of the items and also provided numerous comments for improving the items and scoring guides. The comments will be transmitted to NCES in writing by May 21, 2010.

May 14, 2010 Open Session 9:30 a.m. – 11:30 a.m.

Attendees: ADC – Kathi King (Chair), Alan Friedman (Vice Chair), Amanda Avallone, Doris Hicks, Henry Kranendonk, Kim Kozbial-Hess, Susan Pimentel; Governing Board Staff – Mary Crovo; NCES – Suzanne Triplett, Holly Spurlock, Peggy Carr; NAEP/ESSI – Kim Gattis; ETS – Jay Campbell, Greg Vafis, Nicole Beaulieu, Dave Freund; WestEd – Edys Quellmalz, Mike Timms; Fulcrum IT– Paul Harder; Westat – Nancy Caldwell; CRP – Kathy Smoot; Pearson – Connie Smith; Hager Sharp – Siobhan Mueller.

1. NAEP Technology and Engineering Literacy (TEL) Specifications

ADC Vice Chair, Alan Friedman, introduced the topic and reinforced the importance of the three content areas within the TEL assessment; 1) Design and Systems; 2) Information Communication Technology; and 3) Technology and Society. Mr. Friedman noted that the recent oil platform explosion and massive oil leak in the Gulf of Mexico has elements that relate to each sub-area in the TEL Framework, such as Engineering Design, Information Research, and Ethics, Equity, and Responsibility. The NAEP TEL assessment will be an important new content area to assess in the 21st century.

Edys Quellmalz and Mike Timss of WestEd provided an overview of the draft Technology and Engineering Literacy Specifications. This document was developed by the broad-based project committees and WestEd staff with multiple reviews by Board staff, and those responsible for writing the document. Mike Timss was the lead developer from WestEd on the Specifications document. The ADC had a first opportunity to review and comment on an earlier draft of the TEL Specifications at their March 2010 meeting.

Ms. Quellmalz noted the unique sections of the Specifications that provide more detail on developing the assessment than the Framework. The Specifications include chapters on the assessment and item design, testing students with special needs, and scoring the assessment. Appendices to the Specifications include sections on development of sample items and a CD with recorded movie segments to illustrate interactive assessment items. Mr. Timms presented more details on the Specifications and then demonstrated some sample interactive tasks from international and state assessments, with content that is similar to that on the TEL assessment.

The ADC commended WestEd staff for their comprehensive and ground-breaking work on this project. Members acknowledged that the assessment will be challenging for students, but should also be very engaging given the nature of the assessment and the fact that it is entirely computer-based.

Following discussion of the Specifications, ADC members reviewed the recommended grade level for the 2014 assessment, which is based on the project committee discussions. The ADC concurred with the recommendation that the 2014 assessment be administered at 8th grade. If sufficient resources are available, then the next priority would be for 12th grade.

The ADC passed the following motions related to the TEL assessment:

ACTION: The Assessment Development Committee recommends that the Board approve the Technology and Engineering Literacy (TEL) Assessment Specifications.

ACTION: The Assessment Development Committee recommends that the TEL assessment be administered in grade 8 in 2014. If resources are available, the next priority would be to add grade 12 in 2014 in addition to grade 8.

2. Overview of NAEP Assessment Development Research

Holly Spurlock of NCES presented information on three special studies being conducted by NCES. The first study is the Accessible Booklet Study, which is designed to investigate principles for construction of accessible items. The mathematics portion of this study was conducted in 2010 and data are currently being analyzed. For reading, there have been some small scale try-outs but new work is needed in this area.

The second study is titled the Knowledge and Skills Appropriate (KaSA) study. Ms. Spurlock noted that the goal of this study is to apply principles and methodology learned from the Accessible Booklet study to new test items. She described the study design and methodology, which is to develop mathematics items that measure the ability of low performing students. All of the items are written to specific NAEP Math Framework objectives, and could be used in an operational assessment in the future.

The third study is the Multi-Stage Testing study or MST. Here the objective is to investigate the use of principles of adaptive testing in the NAEP context. In 2011 a sample of students at 4th and 8th grades will be given an online assessment which adapts to their ability level. All of the items in the MST study will be existing NAEP items. In 2011 the MST will only involve mathematics items.

Ms. Spurlock noted that the overall goal of these special studies is to increase precision of measurement across all areas of the NAEP scale.

The ADC engaged in a question and answer discussion with Ms. Spurlock and requested that the Committee receive an update on these special studies at the August 2010 Board meeting.

3. NAEP Item Review Schedule

Mary Crovo of the Governing Board staff briefed the ADC on item review activities for the summer of 2010. The Committee will meet for a full day in conjunction with the August 2010 Board meeting to review reading, economics, and writing items. The Committee engaged in a lengthy discussion regarding options for moving the ADC item reviews from a paper-based to a computer-based mode. Performing the ADC item review in an electronic form will result in considerable cost savings by reducing the need for massive amounts of paper. Ms. Crovo said that she will work closely with NCES staff and their contractors to begin implementing computer-based item review for the August Board meeting.

4. Action on May 13, 2010 Item Review Session

While in open session, the ADC passed the following motion:

ACTION: The Assessment Development Committee approves the 4th and 8th grade mathematics items for the 2011 operational, 2013 pilot, and 2011 KaSA special study, with changes to be communicated to NCES in writing by May 21, 2010.

May 14, 2010 Closed Session 11:30 – 12:30 a.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; Governing Board Staff – Mary Crovo; NCES – Suzanne Triplett, Holly Spurlock; NAEP/ESSI – Kim Gattis; ETS – Jay Campbell, Greg Vafis, Nicole Beaulieu, Dave Freund; Fulcrum IT– Paul Harder; Westat – Nancy Caldwell; CRP – Kathy Smoot; Pearson – Connie Smith; Hager Sharp – Siobhan Mueller.


5. 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 12th grade. Mr. Freund’s briefing was requested by the ADC as a follow-up to the March 2010 briefing on 4th and 8th grade student non-response to math items. 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. Similar to the 4th and 8th grade, high achieving students in 12th grade had lower non-response rates to all item types than their peers who scored lower on NAEP. Mr. Freund displayed secure NAEP 12th grade items to illustrate some points in his presentation. The ADC was very complimentary of the briefing and requested a similar briefing on non-response to science items for the August 2010 meeting.

6. Writing Computer-Based Assessment

Paul Harder of Fulcrum IT discussed the 2010 Writing computer-based pilot test given to 8th and 12th graders in preparation for the 2011 operational assessment. Much of Mr. Harder’s presentation involved data on the use of accommodations and preliminary findings from the pilot study. In both grades 8 and 12, there were far fewer accommodated sessions than in traditional paper-based NAEP assessments. The primary reason behind this finding is that many accommodations allowed by NAEP can be incorporated into the computer-based platform. For example, font enlargement, text to speech, and one-on-one assessments are built into the computer-based administration. ADC members were pleased to see these results and requested further updated on the 2010 writing pilot at their August 2010 meeting.

I certify the accuracy of these minutes.



Kathi King, Chair

5/15/10

Date