

National Assessment Governing Board

Assessment Development Committee

Report of December 6, 2013

Attendees: ADC – Shannon Garrison (Chair), Cary Sneider (Vice Chair), Brent Houston, Hector Ibarra, Dale Nowlin, Susan Pimentel; Governing Board Staff – Mary Crovo; NCES – Suzanne Triplett, Eunice Greer, Jamie Deaton, Elvira Germino Hausken, Taslima Rahman, William Ward, Ebony Walton Chester; AIR – Kim Gattis, Fran Stancavage; ETS – Jay Campbell, Greg Vafis, Lonnie Smith, Madeline Keehner, Steve Lazer, Kathleen Scalise, Jonas Bertling; Westat – Dianne Walsh; Pearson – Brad Thayer, Connie Smith; HumRRO – Sheila Schulz; Westat – Dianne Walsh; Fulcrum IT – Scott Ferguson; CRP – Edward Wolford, Sondra Gaines; Hager Sharp – Joanne Lim; Optimal Solutions Group – Craig Streit; Institute for Educational Leadership – Amy Yamashiro.

Technology and Engineering Literacy (TEL) Update

Lonnie Smith of ETS provided an update on the new Technology and Engineering (TEL) assessment. According to the timeline, the following activities will occur during the next several years:

- Test administration - January to March 2014
- Scoring - March to April 2014
- Data analysis and reporting - May to December 2014
- Report release - Spring/Summer 2015

The TEL administration will involve a nationally representative sample of 8th grade students in public and private schools. There will be approximately 800 schools in the sample, with a total of 20,000 students. The entire assessment will be administered via computer. NAEP administrators will bring 15 laptops to each school to assess students in two sessions, for a total of 30 students sampled per school.

Following Lonnie's remarks, Madeleine Keehner of ETS presented an update on the substantial amount of information currently on the web related to TEL. This information includes several videos, a sample task, sample test questions, and the tutorial students see when they begin the TEL assessment.

Much of Ms. Keehner's presentation focused on additional information being prepared for the web that includes scoring guides, measurement goals of the released TEL task, sample student responses, and other information. Of particular interest to the ADC was the way in which the "click stream" information is being analyzed and reported. This "process data" data result from all of the keystrokes captured as students work their way through the complex TEL tasks. For example, NAEP can capture and analyze response

patterns on how effectively students approach a problem-solving task, the strategies they use, and other data. This rich information is in addition to students' scores on the TEL test questions.

Ms. Keehner noted that the process data will allow NAEP to report on a number of new and more in-depth measures in “extended reporting” for TEL. The interactive scenario-based TEL tasks will offer richer insights into students’ problem-solving processes and allow NAEP to examine more about the various TEL constructs being measured. Extended reporting will occur in stages after the initial TEL Report Card is released. The ADC engaged in discussion related to the data displays of process data. Members noted that this type of analysis and reporting provides insights into students' cognitive skills such as problem solving and critical thinking. The data will also be extremely important for teachers, parents, and others to show student strengths and weaknesses in sub-areas and various constructs that TEL measures.

ADC members stressed the importance of using the TEL Framework targets to analyze and describe the process data findings. This type of rich reporting will also be valuable as more states adopt and implement the Next Generation Science Standards (NGSS) which, like TEL, place heavy emphasis on content such as engineering. The NGSS and TEL also focus on skills such as problem-solving, trouble shooting, and critical thinking. Another key component in both TEL and NGSS is using evidence to support conclusions.

ADC members requested that they be more involved in the work of preparing the TEL web-based information to ensure a sound match to the TEL Framework targets. Members commented that the use of short videos and graphic displays will enhance the information on the web. This type of expanded reporting for TEL is a prototype for some reporting strategies for the operational TEL assessment.

Update on Reporting Grade 4 Computer-Based Writing Information

Ebony Walton Chester of NCES reported on plans to release a website in late January 2014 to share some results and lessons learned from the 2011 computer-based writing pilot at grade 4. NAEP is the only large scale assessment of student computer based writing at this grade level. Educators, policymakers, and parents will be very interested in seeing this information.

The ADC has received briefings on this website development during the last year and has provided a substantial amount of feedback. Members were pleased with the progress made on the website, which will provide information about the assessment platform, sample questions and performance results, data on contextual variables, and other material. ADC members were pleased that so much contextual information on 4th grade writing is being shared, including student access to and use of computers in and out of school, the type of writing instruction students receive, and other factors related to achievement.

The ADC emphasized the importance of these findings and would like to collaborate with the Reporting and Dissemination Committee and NCES on a release event for the grade 4 Writing in early 2014.

Transition to NAEP Technology-Based Assessments (TBA) in Reading and Mathematics

William Ward of NCES presented in-depth information on proposed plans to transition the NAEP reading and mathematics assessments to a technology-based platform.

The transition goals are to leverage technology to improve and expand measurement while leading the field in innovation and maintain meaningful trends.

As NCES Associate Commissioner, Peggy Carr, had shared at the December 5, 2013 Executive Committee meeting, the three approaches being considered for the transition include:

- Single trend line
- Clean break in trend line
- Parallel tracks (overlap years)

Each approach prioritizes one goal over the other, such as expanding measurement opportunities while sacrificing trend in the "clean break" example. In the single trend line option, there would be limits to assessment innovation to ensure trend lines were maintained. Mr. Ward outlined additional pros and cons of each approach to the TBA transition. There are numerous policy issues involved in this transition, such as how the NAEP Frameworks and items will change to allow more technology enhanced test questions and measurement of more complex skills.

ADC members engaged in a lengthy question and answer session and concluded that the parallel tracks approach being recommended by NCES is the best way to proceed. Members also commented on the policy implications that will involve the COSDAM and Reporting and Dissemination committees during the coming months. For example, the parallel tracks approach will present challenges for NAEP scaling that COSDAM will need to address. The parallel tracks option will also be a challenge for reporting results to the public and policymakers in a clear and understandable way.

Joint Meeting with Reporting and Dissemination Committee on NAEP Contextual Variables

See the Reporting and Dissemination Committee report of December 6, 2013 for a summary of this joint session.

I certify the accuracy of these minutes.



Shannon Garrison, Chair

January 10, 2014

Date