

National Assessment Governing Board

National Assessment of Educational Progress Judgmental Standard Setting (JSS)

Final Submitted: May 30, 2014

CAB Panelist User Guide

Submitted to:
Munira Mwalimu
National Assessment Governing Board
800 North Capitol Street, NW, Suite 825
Washington, DC 20002-4233

This study was funded by the
National Assessment Governing Board
under Contract ED-NAG-10-C-0004.



Standard Setting Software Deployment June 27, 2014

Availability of Data – Open Data Policy

In accordance with the U.S. government’s Open Government Directive, agencies are directed to share federal government data with the public, to increase transparency, participation, and collaboration (see <http://www.howto.gov/web-content/technology/sharing-government-data>). The Open Data Policy developed by the White House encourages making data available to the public, see <http://project-open-data.github.io/>. The U.S. Department of Education 2012 Open Government Plan can be found at <http://www.ed.gov/sites/default/files/opengov-plan-v20.pdf>.

Pursuant to this guidance, and in accordance with Federal Acquisition Regulations, the National Assessment Governing Board (Governing Board) is providing access to software and data prepared in support of the Governing Board’s contract work on standard setting. This work was performed under the legislative authority of the Governing Board to set achievement levels, see <http://www.nagb.gov/naep/naep-law.html>. More information on the Governing Board’s work is available at www.nagb.gov.

Background

The National Assessment Governing awarded two contracts in Fiscal Year 2010 to conduct standard setting work. Contract number ED-NAG-10-C-0003 was awarded to Measured Progress to develop achievement levels for the 2011 and 2013 National Assessment of Educational Progress (NAEP) writing assessments. Measured Progress developed a computerized process for conducting the achievement levels process.¹ The second contract, ED-NAG-10-C-0004, was awarded to WestEd to conduct Judgmental Standard Setting Studies (JSS) to identify the NAEP scores at the 12th grade representing the knowledge and skills in reading and mathematics needed to qualify for entry-level credit-bearing college courses and for job training programs in five selected occupations.² WestEd subcontracted with Measured Progress to conduct the studies implementing a computerized standard setting method. Both contracts utilized software developed by Measured Progress under contract, as detailed in the final technical and process reports posted on the Governing Board website.

¹ See final reports available at <http://www.nagb.gov/publications/achievement.html>

² <http://www.nagb.gov/what-we-do/preparedness-research/types-of-research/jss.html>

Software Availability under the Federal Open Data Policy

The Governing Board is making the software developed under these two contracts—Computer-Aided Bookmarking (CAB) and Body of Work Technological Integration and Enhancements (BoWTIE) available for public use via our website with a link to an external site for the download. Technical guides and user manuals to accompany the software download are provided via the Governing Board’s website. Please note that the software used for the contracts has been modified to remove confidential and personally identifiable information based on federal privacy and security requirements that can be found at <http://www2.ed.gov/notices/privacy/index.html> and at http://www2.ed.gov/about/offices/list/om/fs_po/ocio/ias.html. This requirement also adheres to OMB Circular A-130 provisions on electronic information dissemination policies and guidelines available at http://www.whitehouse.gov/omb/circulars_a130_a130trans4.

Limitations:

The Governing Board contracted for final products and deliverables that were developed under contract. The custom software developed to conduct the work was proposed by the contractors and accepted by the Governing Board, and the work was conducted with federal funds. The software and source codes are being made available to the public, as developed for the specific purposes specified under the contract, without technical modifications. The contractors, WestEd and Measured Progress have not asserted copyright to the software.

Therefore the National Assessment Governing Board is making the software available to the public under its unlimited rights contract authority (for both referenced contracts) under Federal Acquisition Regulation (FAR) 52.227-17 Rights in Data—Special Works (DEC 2007). The National Assessment Governing Board grants the public the worldwide, non-exclusive, royalty-free, perpetual right to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, the software created pursuant to the Computer-Aided Bookmarking (under Contract number ED-NAG-10-C0004) and Body of Work Technological Integration and Enhancements (under Contract number ED-NAG-10-C-0003), in any manner and for any purpose, and to have or permit others to do so, subject to a right of attribution. Users of the data are required to acknowledge in any use of the works, or derivatives created therefrom, that the software was initially produced under contracts issued by the National Assessment Governing Board.

THE NATIONAL ASSESSMENT GOVERNING BOARD IS PROVIDING THE SOFTWARE AS IT IS, AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE WORK—EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING WITHOUT LIMITATION WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR THE PRESENCE OR ABSENCE OF LATENT OR OTHER DEFECTS, ACCURACY, OR THE PRESENCE OR ABSENCE OF ERRORS, WHETHER OR NOT DISCOVERABLE, ALL TO THE GREATEST EXTENT PERMISSIBLE UNDER FEDERAL LAW.

Technical Support

The Governing Board will not provide technical support to users, and will not respond to queries pertaining to the software based on the fact that this work was completed under contract, and was a tool used to provide contract deliverables. Both contracts have expired. In its current form, the software would require significant modification by end users, as detailed in the technical and user guides. The Governing Board therefore will not be providing any technical support regarding the software. To assist users of the software, user manuals and technical guides provide system requirements in detail, and step by step instructions on downloading the software.

Disclaimer: External Links

The data and external links provided in the software documentation and guides are solely for our readers' use, information, and convenience. When readers select a link to an external website, they are leaving the ww.nagb.gov website and are subject to the privacy and security policies of the owners/sponsors of the external website.

The National Assessment Governing Board:

- Does not control or guarantee the accuracy, relevance, timeliness or completeness of information contained on a linked website.
- Does not endorse the organizations sponsoring linked websites or the views they express or the products/services they offer.
- Cannot and does not authorize the use of copyrighted materials contained in linked websites. Users must request such authorization from the sponsor of the linked website.
- Is not responsible for transmissions users receive from linked websites.
- Does not guarantee that external websites comply with Section 508 (Accessibility Requirements) of the Rehabilitation Act.

Table of Contents

Introduction to the Computer-Aided Bookmarking (CAB) Panelist Application	1
Acronyms	2
Roles	2
Logging into the CAB Panelist System	3
Dashboard	4
View Item Information	5
Add KSA Commentary on the Item Review Rounds	7
Add KSA Commentary on the OIB.....	9
Set the Bookmark for an OIB Rating Round	11
Complete an Evaluation.....	13
View a Rater Location Chart.....	14
View Cut Scores and Consequences Data Feedback	15
Complete an Exemplar Evaluation.....	17
Index	18

Introduction to the Computer-Aided Bookmarking (CAB) Panelist Application

Computer-Aided Bookmarking (CAB) is a two-application system designed to implement the Bookmarking method of standard setting to set one cut score on a test with multiple choice and constructed response items. It efficiently captures panelists' annotations of knowledge, skills, and abilities (KSAs) required to correctly respond to each multiple-choice item or to score at a specific level on each constructed response item. CAB was used for setting cut scores on the National Assessment of Educational Progress (NAEP) Grade 12 Preparedness Judgmental Standard Setting (JSS) Studies. CAB may be set up to be used for other tests with multiple-choice and constructed response items as long as only one cut score is being set.

The following key activities were computerized with the development of CAB:

- KSA annotations
- Presentation of the Ordered Item Books
- Bookmark placements
- Provision of feedback
- Process evaluation responses
- Selection of exemplar items

The Panelist Application is used by panelists to access materials, perform their tasks and provide data pertinent to all standard setting activities.

This section contains the following topics:

- Acronyms
- Roles
- Logging into the CAB Panelist System

Acronyms

This document uses the following acronyms:

Acronym	Definition
CAB	Computer-Aided Bookmarking
CROIB	Constructed Response Ordered Item Book
JSS	Judgmental Standard Setting
KSAs	Knowledge, Skills, and Abilities
OIB	Ordered Item Book

Roles

The following describes the user roles and permission levels within the CAB Administration and Panelist applications.

Role	Description
War Room Administrator	Has access to all managers and panels in the CAB Administration application and ability to manage all system user permission levels.
Panel Administrator	Has access to assigned panel in the CAB Administration application and ability to manage the Process Facilitator, Panelist, and Observer user permission levels in the User Manager.
Process Facilitator	Has access to their assigned panel in the CAB Administration application and may view but not edit users in the User Manager.
Panelist	Uses CAB Panelist application to review items, provide rating by placing a bookmark, and receive feedback information.
Observer	Has access to the interface and functionality is the same as Panelist, but ratings are excluded from group calculations.

Logging into the CAB Panelist System

Access to the CAB Panelist system requires login credentials.

NOTE: The Panelist login information is supplied by the CAB Administrator.

To log into the CAB Panelist system, follow the steps below:

1. Double-click the **CAB Panelist Application** icon on your Desktop.



2. Enter your username and password.
3. Select the appropriate server from the **Server** drop-down list.
4. Click **Login**.

Dashboard

The **Dashboard** serves as an online agenda for the standard setting process. Through the **Dashboard**, panelists gain access to the systems for performing different tasks such as placing bookmarks, providing KSA annotations, and filling evaluation forms and accessing help documents



The **Dashboard** contains the following functions:

#	Element	Description
1	Username	The current user is logged into the CAB Administration application.
2	Log Out	Click to log out of the system.
3	Elements	Lists rounds and evaluations for review. Click an active element (blue) to review the element.
4	Bookmark	The bookmarked cut score given by the panelist for the rating round.
5	Rater Location	When the admin closes the rating round and publishes the Rater Location Chart, click the Rater Location option to view the Rater Location Chart for the rating round.
6	Feedback	When the admin closes the rating round and publishes the Feedback Chart, click the Feedback option to display the Cut Scores and Consequence Data Feedback published for the rating round.

#	Element	Description
7	Status	<p>Indicates whether the round or evaluation is open, inactive, or closed.</p> <ul style="list-style-type: none"> • Active: Indicates the element is active. • Inactive Indicates the element is inactive and cannot be viewed. • Paused Indicates the element has been paused and cannot be viewed. • Closed: Indicates the element is closed and cannot be viewed.
8	Help documents	A list of reference documents useful to the panelists. Click the filename to open the document.

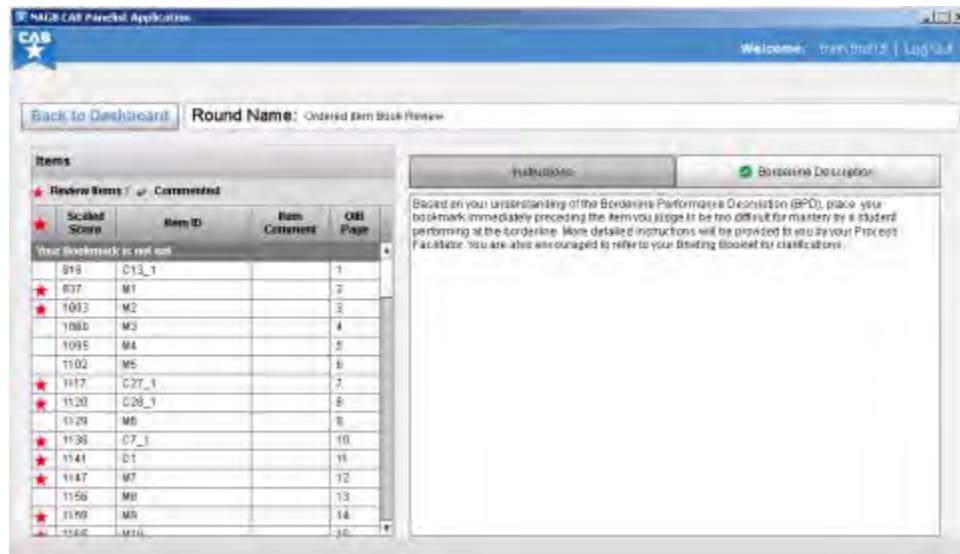
NOTE: For security purposes, please be sure to log out of CAB by clicking the **Logout** link in the top right of your screen.

View Item Information

To view item information, follow the steps below:

1. On the **Dashboard**, click an active rating round.

The **Round** window opens.



2. Click an item in the **Items** list.

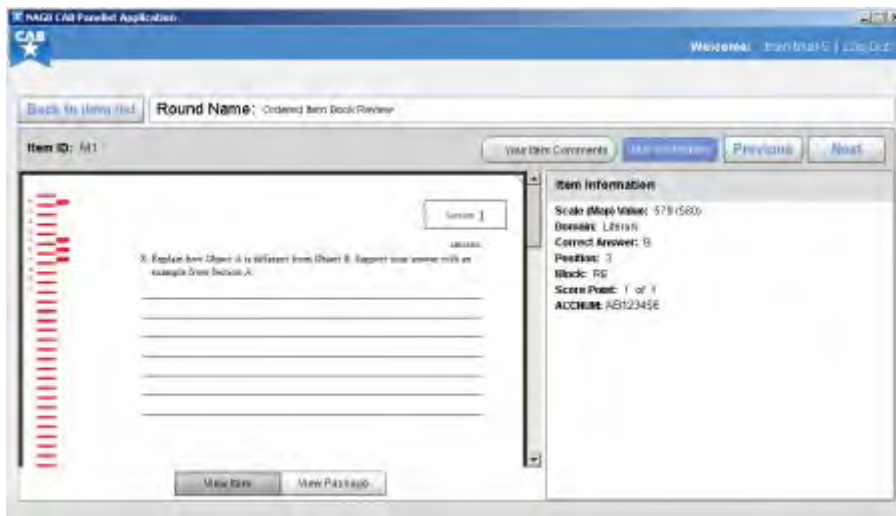
The Item Preview window opens.



3. Click **View Passage** to view the passage associated with the item.
4. Click **Item Information**.

The **Item Information** panel containing the **Scale**, **Domain**, **Correct Answer**, **Position**, **Block**, **Score Point**, and **ACCNUM** is displayed.

NOTE: Please refer to Measured Progress & WestEd (2012, p. 9) for a description of each item in the Item Information panel.



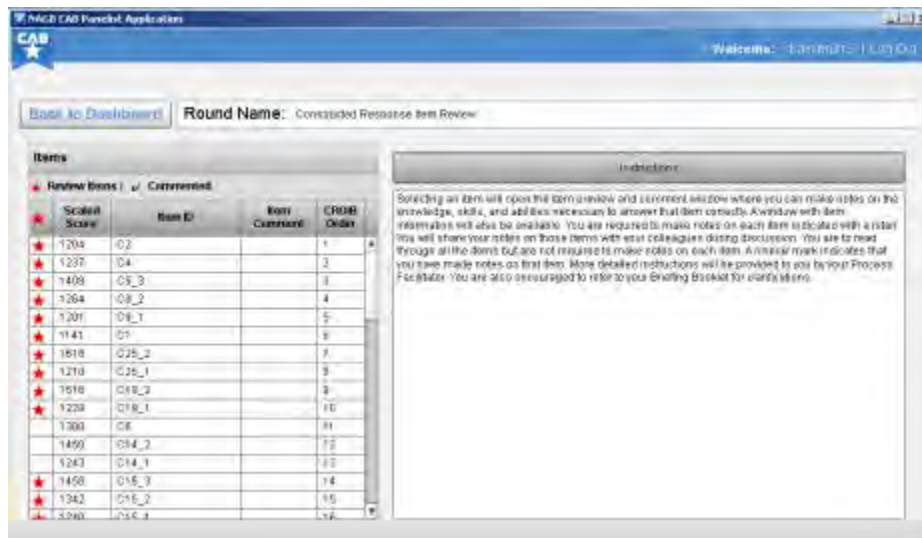
5. (Optional) Do the following:
 - Click **Next** to go to the next item in the list.
 - Click **Previous** to go to the previous item in the list.
6. Click **Back to item list** to return to the Round window.

Add KSA Commentary on the Item Review Rounds

To add KSA commentary on the CROIB during the Constructed Response Item Review, follow the steps below:

1. On the **Dashboard**, click the active CROIB review round.

The **Round** window opens.



NOTE: A red star next to an item indicates where you are required to add KSA commentary to the item.

2. Click the item for which you wish to add commentary.

The **Item Preview** window opens.



3. Click **Your Item Comments**.

The **Item Commentary** box is displayed.



4. Enter the item comments in the **Item Commentary** box.
5. Click **Save**.
6. (Optional) Do the following:
 - Click **Next** to go to the next item in the list.
 - Click **Previous** to go to the previous item in the list.

- Click **Back to item list** to return to the Round window.

A check mark appears next to the item to indicate a comment was added. Follow the same steps to add KSA commentary on the OIB. Note that comments made on the CROIB items are already in the OIB. This is one of the most important features of CAB.

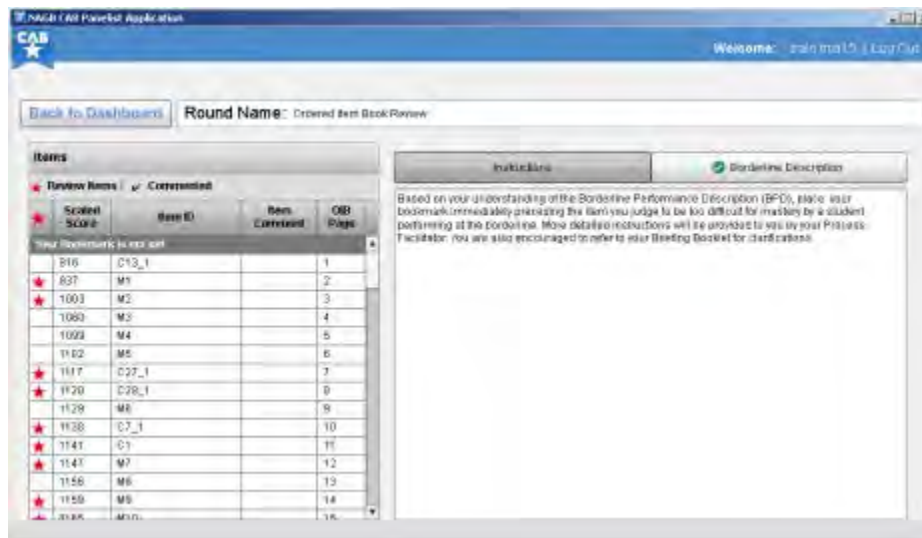
★	Scaled Score	Item ID	Item Comment	CROIB Order
★	1204	C2		1
★	1237	C4		2
★	1408	C9_3	✓	3
★	1264	C9_2		4
★	1201	C9_1		5

Add KSA Commentary on the OIB

To add KSA commentary on the OIB during the during the OIB item review round, follow the steps below:

- On the **Dashboard**, click the active OIB review round.

The **Round** window opens.



NOTE: A red star next to an item indicates where you are required to add commentary to the item.

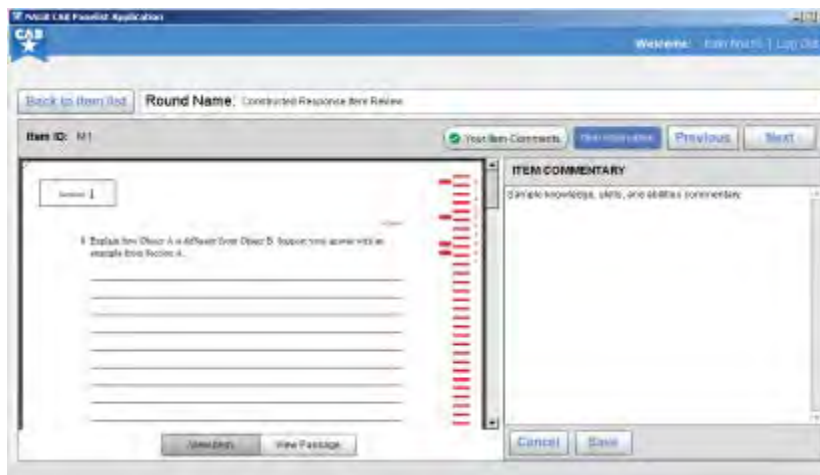
2. Click the item for which you wish to add commentary.

The **Item Preview** window opens.



3. Click **Your Item Comments**.

The **Item Commentary** box is displayed.



4. Enter the item comments in the **Item Commentary** box.
5. Click **Save**.
6. (Optional) Do the following:
 - Click **Next** to go to the next item in the list.
 - Click **Previous** to go to the previous item in the list.

- Click **Back to item list** to return to the Round window.

A check mark appears next to the item to indicate a comment was added.

★	Scaled Score	Item ID	Item Comment	CROIB Order
★	1204	C2		1
★	1237	C4		2
★	1408	C9_3	✓	3
★	1264	C9_2		4
★	1201	C9_1		5

NOTE: The CROIB Item Review always precedes the OIB Item Review. KSA comments made on the CROIB are automatically transferred to the OIB.

Set the Bookmark for an OIB Rating Round

To set a bookmark, follow the steps below:

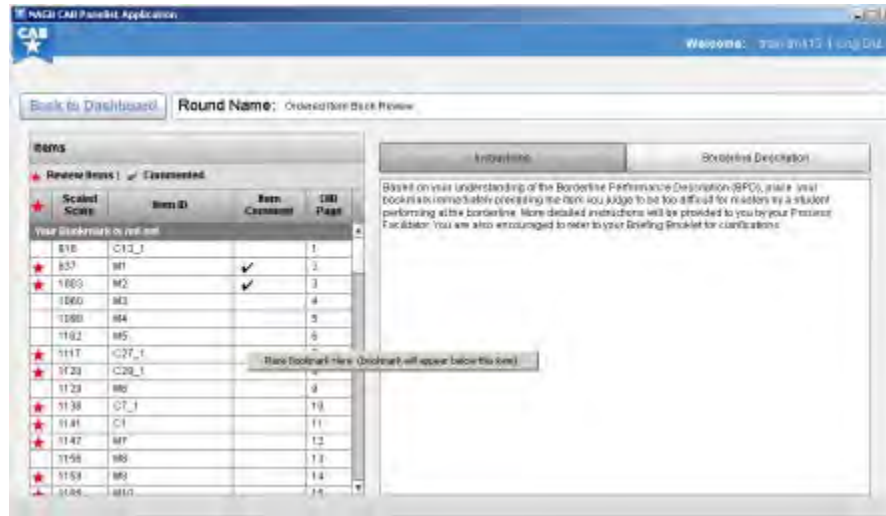
- On the **Dashboard**, click the active OIB rating round.

The Round window opens.

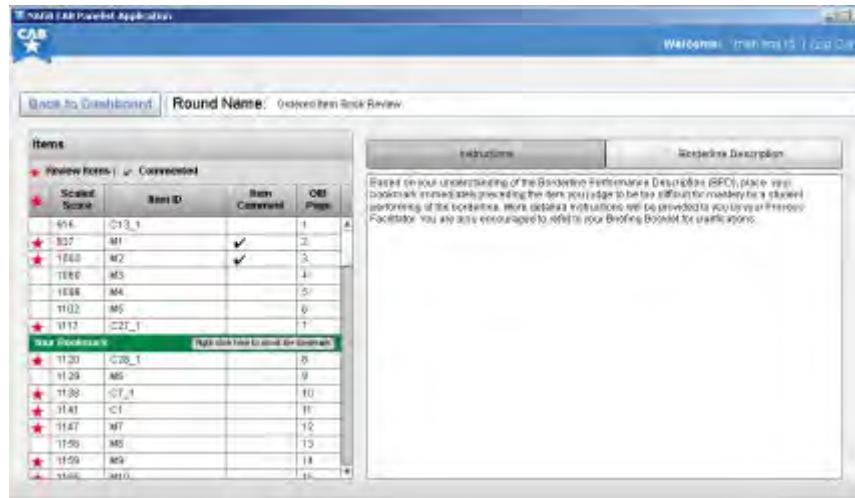
★	Scaled Score	Item ID	Item Comment	OIB Page
★	918	CT1_1		1
★	937	M1	✓	2
★	1003	M2	✓	3
★	1060	M3		4
★	1099	M4		5
★	1182	M5		6
★	1117	C27_1		7
★	1120	C28_1		8
★	1126	M9		9
★	1136	CT_1		10
★	1141	CT		11
★	1147	M7		12
★	1156	M8		13
★	1155	M8		14
★	1165	M10		15

- Right-click the item where you wish to set the bookmark, based on your understanding of the borderline description.

3. Click **Place Bookmark Here**.



The bookmark is set.



NOTE: To remove a bookmark, right-click the bookmark and click **Unset the bookmark**.

4. Click **Back to Dashboard** to return to your **Dashboard**.

The scaled score for the item where the panelist sets his/her bookmark appears on the **Dashboard** for the round.

Name: [Ordered Item Book Review](#)

Bookmark: 1117

Complete an Evaluation

Panelists complete evaluations for each major phase of the standard-setting process. The evaluations are reviewed to identify difficulties panelists may have, improve the standard-setting process, and provide procedural validity for cut score recommendations.

To complete an evaluation, follow the steps below:

1. On the **Dashboard**, click an active evaluation.

The Evaluation window opens.



2. Click **Next** to proceed through the evaluation.
3. When you are finished, click **Close**.
4. Click **Yes** to confirm you wish to submit the evaluation.

NOTE: Click **Cancel** to make changes to the evaluation before you submit it.

Once you submit the evaluation, the evaluation is no longer active in the **Dashboard**.

NOTE: The admin may view the progress and results of the evaluation using the CAB Administration system.

View a Rater Location Chart

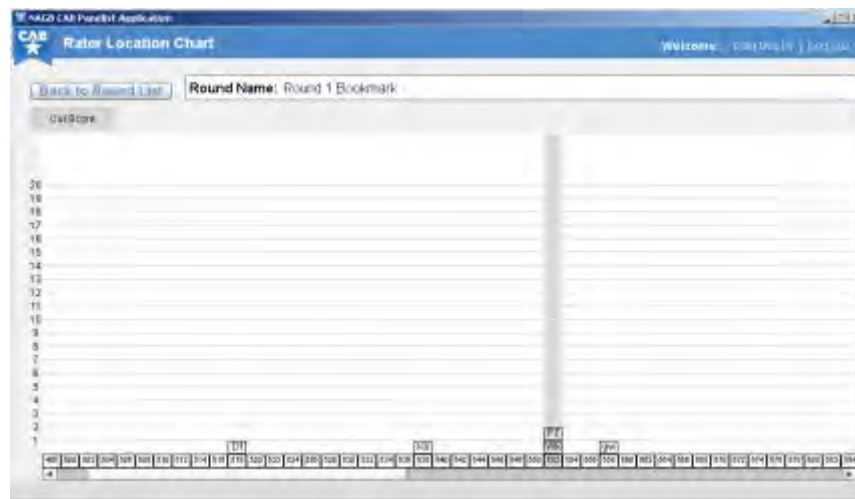
When the admin user closes a rating round and publishes the Rater Location Chart for the round, the panelists assigned to the round can view where their cut scores appear in relation to other panelists and the median score for the round.

To view a Rater Location Chart, follow the steps below:

1. On the **Dashboard**, select the panel from the **Rater Location** for the closed rating round.



The **Rater Location Chart** opens.



NOTE: The gray bar indicates the median cut score for the rating round.

Panelists locate themselves on the chart using their unique identifiers or secret codes. Panelists can compare their cut scores to the median cut scores as well as the cut scores set by other panelists without revealing to each other their own personal cut scores. To find out what their secret codes are, they have to click their names on the upper right hand corner of the screen. It will reveal a window with their own personal information.

2. Click **Back to Round List** to return to the list of rounds on the **Dashboard**.

NOTE: When the admin user un-publishes the Rater Location Chart, the **Rater Location** option is no longer visible to the panelist.

View Cut Scores and Consequences Data Feedback

When the admin user closes a rating round and publishes the Feedback Chart for the round, panelists can view the cut scores and consequences data feedback when the round is closed.

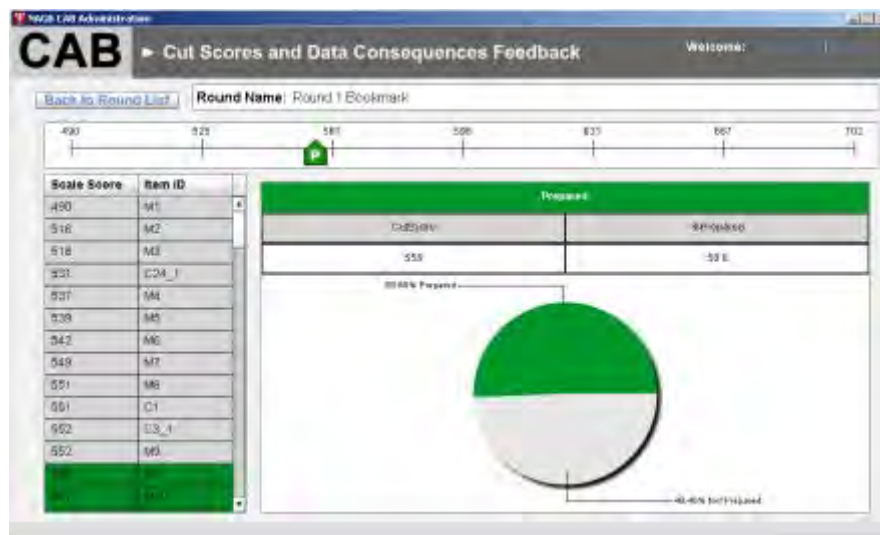
NOTE: See the Process Report (WestEd and Measured Progress, 2011, p.66) for more information about cut scores and consequences data feedback.


To view cut scores and data consequences feedback, follow the steps below:

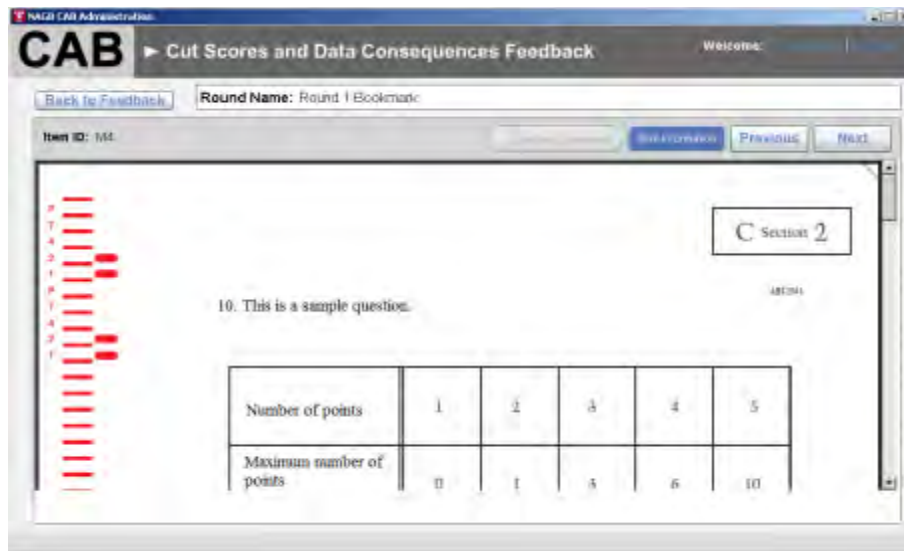
1. On the **Dashboard**, select the **Feedback** for the rating round you wish to view.

Name: Round 1 Bookmark	Status: Closed
Bookmark: 557	

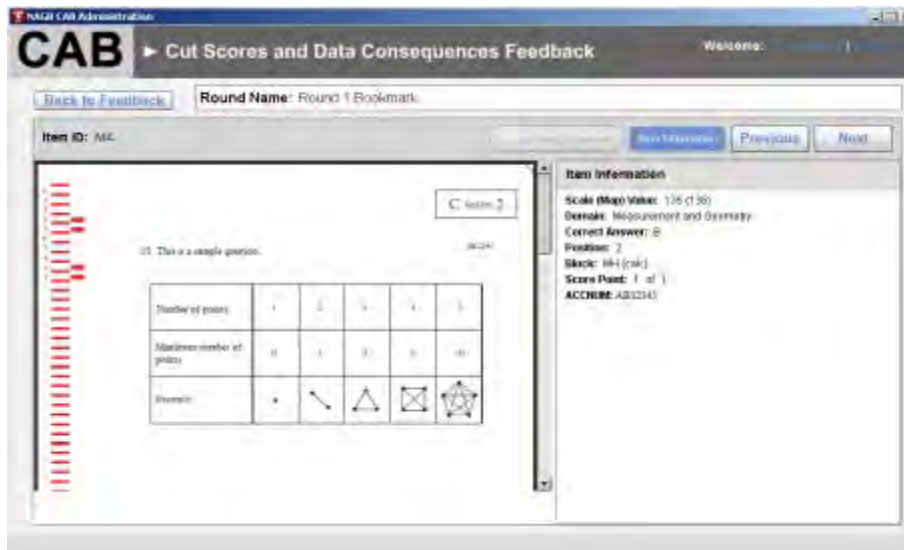
The **Cut Scores and Consequences Data Feedback** window opens.



2. Drag the slider  to preview the impact data for various cut scores. The list of items (on the left hand side) below and above the cut score also changes.
3. Click an item in the **Item ID** column to view the item contents. Viewing items around where one is considering moving the cut score will provide information whether the items around that cut score will be consistent with the borderline description. This helps ensure the cut scores remain consistent with student performance.



4. Click **Item Information** to view information about the item.



5. Do the following:
 - Click **Next** to go to the next item in the list.
 - Click **Previous** to go to the previous item in the list.
6. Click **Back to Feedback** to return to the Cut Scores view.

NOTE: When the admin user un-publishes the Feedback Chart, the **Feedback** option is no longer visible to the panelist.

Complete an Exemplar Evaluation

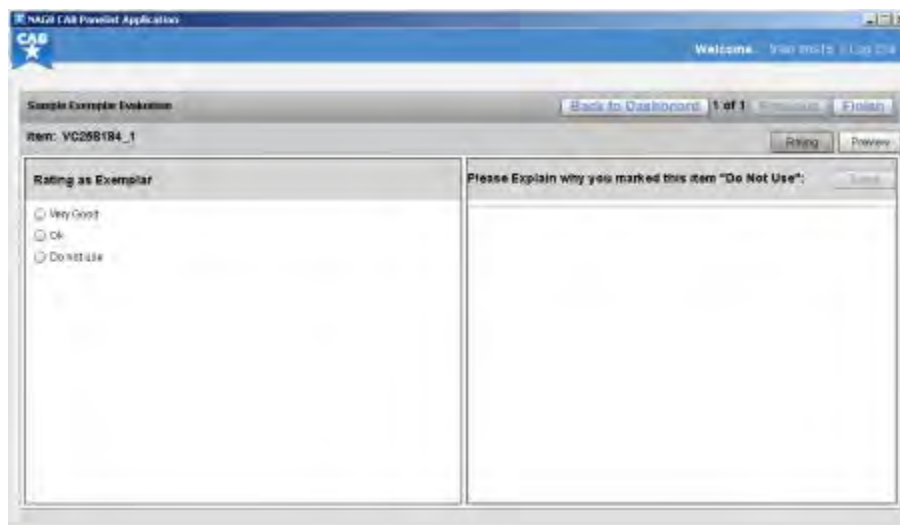
Panelists rate potential exemplar items to indicate whether the items should be used to illustrate academic preparedness.

In this example, exemplar items illustrate the knowledge and skills representing academic preparedness for entry-level coursework in credit-bearing college courses or occupational job-training programs.

To complete an exemplar evaluation, follow the steps below:

1. On the **Dashboard**, click an active exemplar evaluation.

The **Exemplar Evaluation** window opens.



2. Indicate whether the item should definitely be used, is OK to use, or should not be used as an exemplar.

NOTE: Click **Preview** to view the item and item information.

NOTE: If you select **Do not use**, provide an explanation for your selection and click **Save**.

3. Click **Next** to proceed through the evaluation.
4. When you are finished, click **Finish**.
5. Click **Yes** to confirm you wish to close the exemplar evaluation.

NOTE: The admin may view the progress and results of the exemplar evaluation using the CAB Administration system.

Index

A

Acronyms, 2
Add KSA commentary for an CROIB rating round, 7, 9

B

Bookmark, 4

C

CAB, 2
Complete an evaluation, 13
Constructed Response Ordered Item Book (CROIB), 2
CROIB, 2
Cut Scores and Consequences Data Feedback, 15
Cut Scores and Data Consequences Feedback window, 15

D

Dashboard, 4

E

Evaluation, 13
Evaluation window, 13
Exemplar Evaluation, 17

F

Feedback, 4
Feedback Chart, 15

H

Help documents, 5

I

Item Commentary box, 8, 10
Item Information, 16
Item Preview window, 6, 8, 10

J

JSS, 2
Judgmental Standard Setting (JSS), 2

K

KSAs, 2

L

Log into the CAB Panelist system, 3

O

Observer, 2
OIB, 2
Ordered Item Book (OIB), 2

P

Panel Administrator, 2
Panelist, 2
Process, 2

R

Rater Location, 4
Rater Location Chart, 14
Recalculate consequences data, 15
Round window, 11

S

Set the bookmark for an OIB rating round, 11

V

View a Rater Location Chart, 14
View cut scores and consequence data feedback, 15
View Item Information, 5

W

War Room Administrator, 2