

# Comparisons of Computer-Aided Bookmarking (CAB) and Body-of-Work Technological Integration and Enhancements (BoWTIE)

The table below provides comparisons between the two software packages developed for standard setting work conducted by the National Assessment Governing Board (NAGB) for work on National Assessment of Educational Progress (NAEP).

<b>Basis for Comparison</b>	<b>Computer-Aided Bookmarking (CAB)</b>	<b>Body-of-Work Technological Integration and Enhancements (BoWTIE)</b>
Projects for which the software was developed and used	NAEP Grade 12 Preparedness Judgmental Standard Setting (JSS) Studies (see references below)	Developing achievement levels on the NAEP for writing grades 8 and 12 in 2011 (see references below)
Standard Setting Method	Bookmarking (Mitzel, Lewis, Patz, & Green, 2001)	Body of Work (Kingston, Kahl, Sweeney, & Bay, 2001)
Number of Cut Scores set	One cut score that indicates preparedness	Three cut scores: one for each achievement level (Basic, Proficient, and Advanced)
Type of Assessment	Assessment with multiple-choice and open response items	Performance assessment with two parts
Itinerary/Agenda	Standard setting steps are customizable. That is, KSA review (OIB and CROIB), bookmarking, and evaluation are added in the setup; thus, one might specify the number of bookmarking rounds, for example.	Standard setting steps are fixed consistent with the operational implementation of the standard setting process for which the software was developed.
Software Development Framework	Flex	.Net
Required expertise needed for further development	Software engineer who programs in Flex; Database administrator (DBA)	Software engineer who programs in .Net; DBA
Expertise needed for setup for another standard setting	Functionalities are available so that it may be set up for other use by administrative users familiar with similar projects	Has been loaded successfully by the software engineer who was the technology lead for the software development
Evaluation Forms	Functionalities are available to create evaluation forms with both Likert-type and open-ended questions.	Evaluation forms are customized Excel spreadsheets accessed through a link on the home page. A copy of the spreadsheet is made when a panelist clicks on the link. The filename for this new spreadsheet identifies the panelist.
Evaluation Results	Functionalities are available to output evaluation data collected. Reports and summaries need to be created outside the software.	A script is necessary to harvest the data from panelists' spreadsheets. Reports and summaries need to be created outside the software.

Basis for Comparison	Computer-Aided Bookmarking (CAB)	Body-of-Work Technological Integration and Enhancements (BoWTIE)
Related Publications: Process Report	WestEd & Measured Progress (2011) ( <a href="http://www.nagb.org/content/nagb/assets/documents/what-we-do/preparedness-research/judgmental-standard-setting-studies/Standard_Setting_Process.pdf">http://www.nagb.org/content/nagb/assets/documents/what-we-do/preparedness-research/judgmental-standard-setting-studies/Standard_Setting_Process.pdf</a> )	Bay (2012a) ( <a href="http://www.nagb.org/content/nagb/assets/documents/publications/ALS_Process_Report_9-21-12_Final_Panelist_Names_Redacted.pdf">http://www.nagb.org/content/nagb/assets/documents/publications/ALS_Process_Report_9-21-12_Final_Panelist_Names_Redacted.pdf</a> )
Related Publications: Technical Report	Measured Progress & WestEd (2012) ( <a href="http://www.nagb.org/content/nagb/assets/documents/what-we-do/preparedness-research/judgmental-standard-setting-studies/Standard_Setting_Technical.pdf">http://www.nagb.org/content/nagb/assets/documents/what-we-do/preparedness-research/judgmental-standard-setting-studies/Standard_Setting_Technical.pdf</a> )	Bay (2012b) ( <a href="http://www.nagb.org/content/nagb/assets/documents/publications/ALS_Writing_Grades8and12_Tech_Rep_Final.pdf">http://www.nagb.org/content/nagb/assets/documents/publications/ALS_Writing_Grades8and12_Tech_Rep_Final.pdf</a> )

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