

CTB Standard Setting Handbook

A Guide for the Sponsoring Agency

**Karla L. Egan, Ricardo Mercado,
Adele Brandstrom, Dorothy Tele'a
and Michaela Gelin**

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Section I: EXECUTIVE SUMMARY

The CTB Standard Setting Handbook is meant to serve as a general guide to the agency sponsoring a standard setting. This Handbook describes the Bookmark Standard Setting Procedure, provides guidance for steps that your agency should consider before the standard setting begins, and gives examples of the overheads and training materials that will be used at the standard setting workshop. This Handbook is divided into three sections: (I) Executive Summary, (II) The Bookmark Standard Setting Procedure, and (III) A Guide for the Sponsoring Agency.

About standard setting

Standard setting is a method for dividing students into different performance levels. For example, the National Assessment of Educational Progress (NAEP) regularly divides students into four performance levels: *Advanced*, *Proficient*, *Basic*, and *Below Basic*. In standard setting, cut scores are established, which students must meet or exceed in order to be classified in a given performance level.

To set meaningful cut scores, we conduct a standard setting process that considers the knowledge, skills, and abilities that are expected of students in each performance level.

The Bookmark Standard Setting Procedure

In Section II of this Handbook, the Bookmark Standard Setting Procedure (BSSP) is described. This section outlines the day-by-day schedule of activities that participants engage in to set standards.

This section outlines the types of participants that should be invited to the standard setting. It also explains the roles that participants, sponsoring agency staff, and CTB staff will have during the standard setting workshop. In particular, this section discusses the information that the sponsoring agency should provide participants during the Opening Session.

This section is supplemented by the documentation presented in the Appendix to Section II. The Appendix contains the agenda for the standard setting, overheads used to train participants for the BSSP, BSSP training materials, and the evaluation that will be given to participants following the BSSP. All materials presented in the Appendix are generic. Materials specific to your standard setting will be based on these materials and created prior to the standard setting.

A Guide for the Sponsoring Agency

In Section III of this Handbook, the role that the sponsoring agency should take during the standard setting is discussed, particularly regarding the preparations that lead up to the standard setting. These preparations include recruiting participants, reserving conference space, and crafting an opening address.

This section is supplemented by the documentation presented in the Appendix to Section III. CTB provides examples of documents that the sponsoring agency may find useful in this Appendix. The Appendix contains sample materials that the sponsoring agency may use to nominate and recruit participants. It also contains examples of generic performance level descriptors and examples of overheads that the sponsoring agency may use during the Opening Session of the standard setting workshop.

Section II. The Bookmark Standard Setting Procedure

The Bookmark Standard Setting Procedure (BSSP) will bring participants together from across the state to set performance standards on the assessments. These participants will be selected by the sponsoring agency. Each grade/content area will have approximately 24 participants, including four Table Leaders. The implementation of the BSSP will consist of training, orientation, and three rounds of judgments. Table 1 provides a general schedule for a Bookmark standard setting.

The Appendix to Section II contains the agenda for the standard setting, overheads used to train participants for the BSSP, BSSP training materials, and the evaluation that will be given to participants following the BSSP. It also contains sample overheads that may be used by the sponsoring agency in the Opening Session. All materials presented in the Appendix are generic. Materials specific to your standard setting will be based on these materials and created prior to the standard setting.

Table 1. General Schedule for a Bookmark Standard Setting

Day	Time	Activity
Day 1	AM	
	PM	Table Leader Training
Day 2	AM	Opening Session
	PM	Bookmark Activities
Day 3	AM	Bookmark Activities
	PM	Bookmark Activities
Day 4	AM	Bookmark Activities
	PM	Descriptor Writing

Types of Participants

The standard setting committee for each grade/content area should represent a sample of expert participants from the entire pool of all such qualified experts. It is important that the sample is representative of the pool of experts in terms of geographic location, socioeconomic status, ethnicity, gender, community size, and other demographic characteristics. Teacher-participants should be proportionally selected from general classrooms, as well as gifted, special education, and vocational classrooms. School administrators (e.g., school principals) may also be invited to attend the standard setting. If a homogenous group of participants were to be selected, then the resulting cut scores could be biased, jeopardizing the validity of the cut scores.

Sometimes, a state department may choose to include parents, business leaders, or politicians in the standard setting to increase buy-in by the community-at-large. If these types of participants are to be invited, it is important that they understand and be very

familiar with the content being tested. Participants who do not understand the content on which cut scores are being established may erode the credibility of the process.

Day 1: Table Leader Training

Table Leader training is an opportunity for Table Leaders to experience the process of standard setting by participating in mock standard setting exercises. The sponsoring agency should set the tone for the standard setting by expressing the agency's expectations for the type of cut scores that it anticipates from the process. Staff from the sponsoring agency should be available during the standard setting to answer policy-related questions.

Group Leaders and Table Leaders actively participate in Table Leader training, the first formal training of the standard setting. Staff from the sponsoring agency are welcome to attend this series of presentations and practice activities to enhance their understanding of the BSSP. Descriptions of Table Leaders and Group Leaders are provided.

Table Leaders. Table Leaders facilitate discussion and keep the process on track within their small groups. There will be four Table Leaders per grade/content area, each of whom should be an experienced educator within his/her content area. Table Leaders are chosen from among the participants and often have had some previous role with the assessment, such as serving on item-review committees. Their primary role is to monitor the group discourse, keep the group focused on the task at hand, and keep time for the group. Occasionally, Table Leaders must focus the discussion, find a diplomatic middle ground between participants, or request assistance from CTB and the sponsoring agency. Table Leaders need appropriate skills for group facilitation and should be very familiar with the state curriculum and academic standards. Table Leaders are voting members of their standard setting committee.

Group Leaders. Group Leaders facilitate the implementation of the BSSP in their respective grade/content area breakout rooms. In their rooms, Group Leaders monitor the discourse at each of the tables, keep their groups on schedule, and facilitate inter-table discussion during the BSSP. Group Leaders are non-voting members of the standard setting staff. Group Leaders are typically from CTB.

During Table Leader training, Group and Table Leaders will participate in a mock BSSP in which they will review all of the tools of the BSSP, including the ordered item booklet (OIB) and the item map. They will simulate the three rounds of BSSP activities by studying the items in the OIB, placing bookmarks, and discussing bookmark placement. Group Leaders will serve as Table Leaders during the mock BSSP, modeling appropriate Table Leader behaviors. In addition, Table Leaders will be given advice on facilitating discussion at their tables, handling problem participants, and completing tasks in a timely manner. Descriptions of the materials used during the mock BSSP are provided.

The *ordered item booklet* (OIB) is comprised of selected-response (SR) and constructed-response (CR) items. These items are ordered in terms of difficulty. For SR items, the ordering is straightforward, in that easier items are placed earlier in the booklet and harder items follow. For CR items, each score point appears separately in the OIB. The difficulty associated with each score point of the CR items is ordered with the difficulty of each SR item.

The *item map* summarizes the materials in the OIB and indicates the order of difficulty, scale location, item number, scoring key, and standard that each item measures. On the item map, the participants answer two questions: (1) “What does this item measure? That is, what do you know about a student who can respond successfully to this item/score point?”; and (2) “Why is this item more difficult than the preceding items?”

Following the mock BSSP, a Target Student discussion will be conducted. A Target Student is defined as a student whose performance is equivalent to the minimum score required for entry into a particular performance level. Working in grade/content areas, the Table Leaders will draft descriptions of the Target Student for each cut score being set using the appropriate content standards, generic performance descriptors, and expectations that they have for these students. These definitions will serve as a basis for establishing a common understanding of the type of student that should be considered for each cut score in each grade/content area.

Day 2: Opening Session and the Bookmark Standard Setting Procedure

The Opening Session is participants’ first opportunity to meet staff from the sponsoring agency and CTB. It is important that participants feel appreciated and valued for their content expertise. A representative of the sponsoring agency will welcome participants to the standard setting, overview the testing program, and outline the review process for the cut scores after the standard setting.

Overview of the testing program. The sponsoring agency should address the purpose of the testing program. The agency may comment on the history of the testing program, legislative requirements, and policy decisions that are based on testing results.

Outline of the review process for cut scores following the standard setting. It is important that the sponsoring agency sets the tone for the standard setting and specifies the review steps that will be taken before final cut scores are established. The agency should inform participants that they are one part of an overall, multi-step process. Participants should understand that their cut scores are recommendations that will be reviewed by different groups, such as the Technical Advisory Committee (TAC) or policy-advisory committee. The sponsoring agency may provide participants with a handout that shows the review process for the cut scores.

Sample overheads that may be used by the sponsoring agency in the Opening Session are included in the Appendix.

A member of the CTB Standard Setting Team will then overview the purpose of standard setting and will introduce the Bookmark Standard Setting Procedure (BSSP). Participants will be introduced to key concepts and materials of the BSSP including the ordered item booklet (OIB), the item map, and bookmarks. After this brief presentation, participants will be directed to their pre-assigned tables in their grade/content area breakout rooms.

Once participants are in their breakout rooms, they will begin activities that will familiarize them with the assessment for which they are setting standards.

Take the test. Participants will take the test for which they are setting standards to see the test from the student's perspective.

Target Student Discussion. Participants will review the Target Student descriptions written by the Table Leaders. Table Leaders will have an opportunity to share their rationales behind the descriptions, and participants will share their opinions regarding the descriptions. After this discussion, revised descriptors may be made available to the participants in their respective grade/content areas.

Round 1. At each table, participants will study each item in the OIB in detail as a small group and will take notes about each item on their item maps. Participants will receive training on bookmark placement. They will be instructed to keep the Target Student descriptions in mind when placing their bookmarks. Participants will place their bookmarks independently.

Day 3: Bookmark Standard Setting Procedure

Complete Round 1 activities.

Round 2. Participants will discuss bookmark placements in their small groups at their tables. After discussions, they will again place their bookmarks independently.

Day 4: Bookmark Standard Setting Procedure and Description Writing

Round 3. Participants in each grade/content area will be shown impact data based on their large group's median Round 2 bookmarks. Impact data summarize the percentage of students in each performance level. The sponsoring agency should be present for this presentation of impact data to answer policy-related questions.

Description Writing. Participants will summarize the knowledge, skills, and abilities required of students in each performance level.

Evaluation. All participants will complete an evaluation of the Bookmark Standard Setting.

After the Standard Setting

Articulation of the Cut Scores

When cut scores are recommended in multiple grades, it is likely that the cut scores will not be well-articulated. The articulation of impact data refers to the way these data look across grades, that is, to the consistency of the data across grades. Table 2 shows examples of well-articulated impact data, in which the percentage of students classified as *Proficient* is constant, decreasing, or increasing across the grades. Poorly articulated impact data may raise and fall across grades. The public sometimes expects to see well-articulated impact data because the data meet their expectations of what data for a testing program should look like. On the other hand, impact data that does not appear to be well-articulated may reflect the increasing and decreasing expectations and skills of students in each grade. Table 3 shows two examples of poorly articulated impact data. Notice that in Example 2 the number of *Proficient* students is lower in Grade 4 than it is in Grade 3 or 5. The sponsoring agency may find it necessary to adjust participants’ recommended cut scores following the standard setting in order to promote a well-articulated system of cut scores.

Table 2. Well-articulated Impact Data

	Grade					
	3	4	5	6	7	8
Constant	30%	30%	30%	30%	30%	30%
Decreasing	40%	35%	30%	25%	20%	15%
Increasing	15%	20%	25%	30%	35%	40%

Table 3. Poorly Articulated Impact Data

	Grade					
	3	4	5	6	7	8
Example 1	25%	35%	18%	30%	19%	35%
Example 2	45%	30%	40%	25%	35%	12%

Adjusting the Cut Scores

To adjust cut scores, some states have invited Table Leaders from each grade level within a content area to smooth the data. After all grade levels in a content area have placed their Round 3 bookmarks, the Table Leaders gather to discuss the consistency of impact data across the grades. The impact data from each grade level are reviewed, and Table Leaders share the discussions that occurred in each grade. The cross-grade group decides whether or not the performance standards demonstrate a logical progression from grade-to-grade. This group then makes a recommendation to the sponsoring agency and its advisory committee on possible adjustments to the cut scores. Even if Table Leaders are provided the opportunity to smooth the cut scores, there is still a chance that they will recommend cut scores that do not articulate well across the grades.

In other states, cut scores have been smoothed by an advisory committee or by the staff from the state department of education. Following the standard setting, the sponsoring agency may adjust the cut scores based on standard errors. The agency may also implement a policy model in which, for example, an equal percent of students are classified as *Proficient* or above in all grade levels. It is important that a logical rationale be used when cut scores are adjusted so that any adjustments may be explained.

Technical Report

Following the workshop, CTB will provide the sponsoring agency with a Preliminary Bookmark Standard Setting Technical Report. The Preliminary Report will include summaries of voting in all grade/content areas and information about standard errors of measurement and of the cut scores.

After the standard setting workshop, a Final Standard Setting Technical Report detailing the process and results of the standard settings will be submitted to the sponsoring agency. This report will contain detailed information about judgments made by participants in each grade/content area; information about standard errors of measurement and of the cut scores; graphical representations of participants' judgments; detailed summaries of participants' evaluations; and copies of the handouts and overheads used during the standard setting workshop.

Response Probability and the Bookmark Standard Setting Procedure

In the BSSP, the response probability (RP) criterion is used as an indication of mastery because it specifies the likelihood with which students of a particular ability level will correctly answer an item. The RP criterion affects the cut scores, the impact data, and the ordering of the items in the OIB¹.

In nearly all implementations of the BSSP, the RP criterion is $p = 0.67$, referred to as RP67. The decision to use RP67 was informed by research by Kolstad (1996) and Huynh (1998). Huynh demonstrated that the Fisherian information function for a correct response to a selected-response item under the three-parameter logistic (3PL) model is

¹ Research by Egan (2001) indicates that RP criterion has a limited impact on the ordering of items.

maximized with a response probability of two-thirds when guessing is factored out (see Lewis, Green, Mitzel, Baum, and Patz, 1998).

For each item in the ordered item booklet (OIB), a scale location is identified at which students with that scale score have a two-thirds chance of answering the item correctly once guessing has been factored out. Thus, when a cut score is placed in an OIB, we can say with some certainty that students who exceed the cut score have *mastered* the content which the standard setting participants expected them to master. The students at or above the cut score will have at least a two-thirds chance of answering the item correctly.

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Section III: A Guide for the Sponsoring Agency

Before the standard setting workshop begins, many tasks must be completed, from recruiting qualified participants to considering policy issues. This section of the Handbook details some of these tasks. The time required for each task may vary depending on the structure of your agency and the size of the standard setting workshop.

Tasks to complete before the standard setting fall into three main categories: (1) selecting participants, (2) making logistical arrangements, and (3) considering possible results. These three categories are each discussed.

Selecting Participants

A successful standard setting depends on the recruitment of an adequate number of qualified participants. Although this important process can seem daunting at first, there is an established method for identifying and contacting participants.

- Closely estimate the number of participants needed
- Conduct a nomination process for standard setting participants
- Select participants and identify Table Leaders
- Invite participants by letter
- Divide participants into demographically balanced groups
- Make a roster of Table Leaders and participants

Closely estimate the number of participants needed

You should plan to recruit 24 participants for each grade/content area for which standards are to be set. Most sponsoring agencies prefer to recruit more participants so that alternate participants are available if emergencies arise.

Each grade/content area will be divided into several workgroups, or *tables*. A grade/content group of 24 participants will be divided into four tables of six participants each.

If a different number of participants per grade/content area are to be invited for the standard setting, the CTB Standard Setting Team should be consulted. This may alter the number of tables the participants are divided into and the number of Table Leaders that are needed.

Conduct a nomination process for standard setting participants

Having knowledgeable, experienced participants is critical to a successful standard setting. Because of this, the process used to select participants is an important component in the preparation for the standard setting. The final group of participants should be representative of the state in terms of geographic location, socioeconomic status,

ethnicity, gender, community size, and other demographic characteristics. If an agency were to select a homogeneous group of participants, it might introduce bias into the results, which could jeopardize the validity of the cut scores. To protect the validity of the cut scores, CTB recommends a more formal nomination process to find standard setting participants.

Participant Characteristics

The participants at the standard setting should be experts in the background knowledge that is assessed by the test. More specifically, participants must have a strong base of knowledge in the following areas.

- Recognize developmentally appropriate ability
- Be familiar with statewide curriculum frameworks
- Be familiar with local curriculum and classroom practices
- Be able to infer the measurement intent of items and tasks that appear on the test

Clearly, a number of years of classroom teaching is a good training ground for the development of this knowledge base, especially when it includes teaching several different grade levels or student populations. In addition, some formal training in measurement or assessment is helpful for participants.

Experience is also vital for standard setting participants; many successful committee members are long-time, well-respected classroom teachers. The following are recommended experience criteria for standard setting participants.

- Five or more years of classroom teaching experience
- Varied teaching experiences, such as multiple grades, special education, or curriculum expertise
- Knowledge of the state content standards and curriculum frameworks
- Understanding of developmentally appropriate achievement at the grade level for which standards will be set
- If participants are included from outside the education community, such as business leaders or legislators, they should have some background in education.

The last point applies if the sponsoring agency would like to include non-education professionals in the standard setting process. Generally, agencies may choose to include parents, business leaders, or politicians in the standard setting workshop to increase buy-in by the community-at-large. Although these participants can have significant influence on their peers, non-education professionals may find themselves with only a limited amount of knowledge to contribute regarding test content and instructional experience. If non-education professionals are to be invited, it is important that they understand and be very familiar with the content being tested. Participants who do not understand the content on which cut scores are being established may erode the credibility of the process. Non-education professionals may provide effective impact in other aspects of test creation, such as bias review or content standard creation.

The standard setting committee represents a sample of expert participants from the entire pool of all such qualified experts. With this, it is important that the sample be representative of the pool of experts in terms of geographic location, socioeconomic status, ethnicity, gender, community size, and other demographic characteristics. Teacher-participants should be selected from general classrooms, as well as gifted, special education, and vocational classrooms.

The Nomination Process

Many sponsoring agencies begin their nomination process at the local level. Nomination letters, as well as subsequent invitations to nominees, should come from directly from the sponsoring agency. Letters soliciting nominations for participants should be sent by the sponsoring agency to district superintendents or school principals to recruit participants from the educational community. These letters should include a brief description of the standard setting process, the necessary qualifications, the dates and location of the standard setting, and the compensation, if any. An example of the nomination form is provided in the Appendix to Section III.

Successful nomination campaigns convey a sense of opportunity to potential participants. Your call for nominations should emphasize that participation in the standard setting is a chance for professional growth and is a privilege for which participants must qualify.

District-level officials should return a nomination form for each teacher or administrator they nominate. Once you receive a nomination, you should first contact the nominee to affirm interest in the standard setting, and then send an information form for their completion. This information form should include the participant's qualification, contact information, demographic information, teaching specialization, and geographic information. A brief non-technical description of standard setting that may be sent to nominees is included in the Appendix.

To reduce the paperwork load, administrators can be encouraged to limit the number of nominations they make; for example, they might be asked to nominate only the five most qualified participants, keeping demographic balance in mind.

The information forms you collect from nominees represent the pool of expertise from which you will select the standard setting participants. Retain these forms, as well as the background data for all nominees and final participants for your records.

Select participants and identify Table Leaders

You can use the nominee information sheets to make final selections for the standard setting committee. First, sort the forms into "cells" as needed to produce a representative sample. For example, you may cross the ethnic background of each nominee (minority, non-minority) with regional demographics (western urban, eastern rural, central suburban, etc.).

Once the information sheets are divided into cells, you can choose final participants by judgment or random chance. For example, you may select the most qualified participant from each cell to be part of the standard setting committee. Alternately, you may use a lottery mechanism to select randomly a nominee from each cell. After this selection process, you should have a representative sample from the pool of experts.

Many sponsoring agencies also choose to invite teachers and administrators with whom they have worked in the past to serve as participants. Often, these participants have a great deal of knowledge about the assessment, making them ideal candidates. Selections of this type, however, fall outside the selection mechanism detailed above. The impact of these selections on the representativeness of the panel compared to the state is unknown and should be made with great care. Should you choose to make this type of selection, these participants should meet the following criteria.

- Meet the same qualifications as participants in the normal selection process
- Have the same background paperwork on file
- Be dispersed to different tables during the standard setting workshop since they may already be familiar with one another

If the sponsoring agency chooses to include non-education professionals in the standard setting workshop, these participants may also be selected outside the normal nomination process. These participants should also meet the following criteria.

- Have as much background knowledge and experience as possible in the content area
- Be distributed uniformly across the groups

Identify Table Leaders

Once you have selected participants for the standard setting, the sponsoring agency can choose Table Leaders. Table Leaders should be selected from the pool of standard setting participants based on their teaching experience, knowledge of the content standards, knowledge of the curriculum and assessment, and ability to facilitate groups. Table Leaders are voting members of their table. Their duties also include monitoring the group discourse, keeping the group focused on task, and serving as timekeeper for their table. They will also facilitate discussion and may be called upon to find a diplomatic middle group between participants or to call upon their Group Leader for assistance.

Invite participants by letter

As soon as possible after you have selected standard setting participants, you should formally invite them to the standard setting workshop. This letter should extend warm congratulations for being selected to participate; generally, more educators are nominated than are needed for the workshop. This letter should also include all pertinent details about the logistics of the standard setting, including location, dates, time necessary for arrival, compensation, travel arrangements, hotel information, and contact information.

If a participant has been selected as a Table Leader, they should be informed and told when Table Leader training will occur. Examples of participant and Table Leader letters may be found in the Appendix.

Participants should RSVP by telephone, mail, or email; the sponsoring agency should have a record of acknowledgement from each standard setting participant before the workshop. As you receive confirmations from participants, you should answer any questions they have about the workshop quickly and accurately. This process of confirmation can be used to form a long-lasting sense of trust and confidence in the sponsoring agency.

Divide participants into demographically balanced groups

When you first selected participants from the pool of nominees, you thought about the demographic characteristics of the standard setting committee. As you finalize the roster of participants and Table Leaders, you should continue this careful planning process by dividing the committee into demographically balanced groups.

Within each grade/content area of 24 participants, the sponsoring agency divides the participants into four tables. First, assign each Table Leader in the grade/content area to an arbitrary table, and then form the table around him or her. Make sure each table is balanced in the target demographic factors, including ethnicity, gender, community type, community size, and professional background. Properly balancing the demographics within each table will enhance the validity and reliability of the cut scores.

Make a roster of Table Leaders and participants

Once nominees have responded to their invitations to participate in the standard setting workshop, you should have a good idea of how many alternate participants you may need to invite. As you draw on your pool of alternates, remember to draw on a demographically diverse group of participants.

Building a roster of Table Leaders and participants can help you in logistical planning. For example, hotels often need to have contact lists for groups that will be staying overnight. On the roster, be sure to denote which participants will be Table Leaders.

The participant list may include participants' names, city, telephone number, e-mail address, content area, grade level, table number, and relevant demographic information. Many sponsoring agencies also list information on the roster about the alternates who are available if needed.

Making Logistical Arrangements

The logistics of a standard setting workshop are of paramount importance. When workshop accommodations are at their best, participants can focus their attention on the tasks of the standard setting.

On some projects, the sponsoring agency prefers to take a lead role in making logistical arrangements. On others, CTB makes all these plans, from hotel space to nametags. Discuss these options with your CTB Program Manager well in advance of the standard setting.

- Arrange for hotel and workshop accommodations
- Develop a security plan for the workshop
- Prepare participant sign-in sheets, nametags, legal documents

Arrange for hotel and workshop accommodations

Early planning is key, especially if your standard setting is large. In some markets, venues for standard setting can be booked months in advance, so it is crucial to begin thinking about these logistical considerations early.

At a typical standard setting, each grade/content area has its own breakout room. One room serves as a secure operations room. A large room is used for the Opening Session and training. Specific requirements can be discussed with the CTB Standard Setting Team.

Many state assessment agencies prefer to have the standard setting workshop in the capital city at a hotel with conference space. Be sure to choose a hotel with enough available conference rooms and sleeping rooms for everyone at the workshop, including staff from CTB and your agency. Make sure that the hotel can provide catering support, as well as provisions for the security of the test materials.

You should also consider what reimbursements you will offer participants. Most sponsoring agencies provide participants reimbursement for mileage to and from the workshop, hotel rooms for participants from outside the immediate area, and meals during the workshop. Some agencies also provide an honorarium to participants or reimburse their districts for costs associated with hiring a substitute teacher.

Develop a security plan for the workshop

Since participants will be reviewing items from the tests, test security is a prime concern at the standard setting. To help prevent unplanned disclosure of test materials, CTB will take the following steps at the workshop.

- All secure documents will be provided on colored paper, and all non-secure documents will be provided on white paper.
- Materials will be collected in a highly structure process that occurs at the end of each day, as detailed in the Master Agenda.
- Materials will be audited at the end of each day.
- The CTB Standard Setting team will emphasize test security throughout the standard setting, including at the Opening Session and each day of the workshop.
- Participants will be required to sign non-disclosure agreements.

The sponsoring agency must also take an active role in safeguarding the test materials. For example, CTB recommends that a representative from the sponsoring agency mentions the importance of test security at the Opening Session of the standard setting, thereby alerting participants to the need for security from the outset. Additionally, you should answer three questions about test security at the standard setting workshop.

What materials may participants take home with them, if any? Many sponsoring agencies allow participants to keep the non-secure materials involved in the standard setting, such as copies of the state content standards, the workshop agenda, and training materials. Alternatively, some agencies decide not to allow participants to retain any materials from the workshop. This decision should be made before the standard setting workshop so that it can be clearly communicated to participants during the Opening Session.

What aspects of the standard setting may participants discuss in public? Of course, participants are disallowed from discussing specific test items outside the workshop, but other aspects of the standard setting process may be deemed sensitive. For example, participants may be asked not to share information about the cut scores, impact data, or performance-level descriptors with their colleagues. CTB recommends that participants be encouraged to share their experience with the Bookmark Standard Setting Procedure with their peers, but not any information about the actual test or data (e.g., impact data or cut scores) from the workshop.

Will the media be invited to the workshop? On rare occasions, local media are invited to observe the Opening Session or film participants during the standard setting. If the media will be invited, please notify CTB far in advance. Efforts must be made to keep secure materials from being photographed, videotaped, or otherwise recorded.

Prepare participant sign-in sheets, nametags, legal documents

Many sponsoring agencies require participants to sign in each day of the standard setting workshop. Simple sign-in sheets for each grade/content area can simplify the registration and sign-in process.

Participant nametags are an invaluable aid at the workshop. Nametags should be designed to last for several days and may include the participant's name and grade/content area assignment at the standard setting. Participants are encouraged to wear their nametags at all times to aid in identifying who is allowed into the breakout rooms.

Non-disclosure agreements are one facet of the overall test-security plan. CTB and some sponsoring agencies have standard non-disclosure agreements they require participants to sign. Discuss these arrangements with your CTB Program Manager. Agreements are generally signed on the first day of the workshop, before the Opening Session.

Most participants, especially teacher-participants, are very comfortable in signing non-disclosure agreements. In practice, when it is made clear that the non-disclosure agreement protects the test against unplanned disclosure, virtually all participants have signed agreements without reservation. However, to protect the testing program, CTB recommends excluding participants who refuse to sign the non-disclosure agreement.

Considering Possible Results

The sponsoring agency should consider the range of possible performance standards that might be set by the committee. Engaging in these discussions before the standard setting can help to set expectations for the standard setting, inspire a tone for the workshop, and avoid difficulties along the way. To help address these topics, the sponsoring agency should plan the following activities well in advance of the standard setting.

- Convene a Technical Advisory Committee
- Draft generic performance-level descriptors
- Consider the social and political possibilities of the outcomes
- Invite an agency executive to make opening remarks at the standard setting

Make plans to convene a Technical Advisory Committee

A Technical Advisory Committee (TAC) can provide valuable guidance to the sponsoring agency, as well as promote the legal defensibility of the cut scores. A TAC is usually comprised of three to five well-respected members of the educational measurement community. These TAC members review the plans for and implementation of the standard setting. Your agency can look to TAC members for this third-party advice, as well as use their review to defend cut scores in case they are challenged later.

Members of the TAC are usually culled from local universities and existing contacts. TAC members are generally paid a fee for their participation in TAC meetings. If you need assistance locating suitable members for a TAC, or if you have questions about the TAC review process, ask the CTB Standard Setting Team.

Draft generic performance-level descriptors

To help the standard setting committee establish cut scores, the sponsoring agency must have a clear conceptualization of the level of competency expected from students in each performance level. These conceptualizations, the *generic performance-level descriptors*, provide participants with guidance as they begin the standard setting. Generic performance-level descriptors can range from very formal to quite informal, but all successful descriptors convey the general nature of the performance levels.

The tone used in generic performance-level descriptors may have a significant impact on the judgements of participants during the standard setting. Participants use the descriptors to calibrate themselves during the workshop as to the nature of the performance levels. For example, if the sponsoring agency is looking for minimal competency standards, the generic performance-level descriptors might talk about students “mastering basic skills.” If the sponsoring agency is looking for world-class standards, on the other hand, the descriptors might talk about “mastering challenging content,” use the phrase “world-class standards,” or reference an established set of rigorous standards, such as the NAEP standards. Examples of generic performance level descriptors can be found in the Appendix.

Some agencies must seek the approval of a board or committee for these generic performance-level descriptors. If this is the case with your agency, you should begin this process early; generic performance-level descriptors should be approved and provided to CTB at least two weeks prior to the standard setting workshop.

Consider the social and political possibilities of the outcomes

While you are still in the early stages of planning the standard setting workshop, the sponsoring agency should take time to consider the ramifications of the standards that will be set. Many sponsoring agencies are hesitant to discuss expectations for the percent of students in each performance level, but many have some expectations of what would be considered reasonable.

In order to obtain “reasonable” standards, the sponsoring agency should convey the nature of the performance levels through the generic performance-level descriptors they create and the tone with which they are discussed. The public should be prepared well in advance through media releases that indicate the purpose of the performance levels.

The sponsoring agency should consider who will review the recommended cut scores following the standard setting. There is substantial precedent for modifying cut scores following a standard setting, especially in terms of standard errors. If cut scores are to be

set for the same content area across multiple grades, one might expect the results to be roughly consistent, increasing, or decreasing from grade to grade. If one grade is inconsistent with the other grades, there should be a mechanism to review the cut scores and make recommendations to achieve a consistent system of standards across grades. This mechanism should be discussed well in advance of the standard setting workshop.

Invite an agency executive to make opening remarks at the standard setting

The sponsoring agency should have an executive make opening remarks at the Opening Session of the standard setting workshop. These remarks serve a three-fold purpose. First, the speaker makes it clear to participants that the sponsoring agency is the host of the workshop and that CTB is only a facilitator of the process. Second, the speaker welcomes participants to the workshop and briefly describes the standard setting process. Third, and perhaps most importantly, the speaker sets the tone of the standard setting, just as the generic performance-level descriptors do.

During these remarks, the agency executive can tell the participants of the importance of the standard setting. The sponsoring agency can also be prepared to discuss the background and purpose of the testing program, the content standards, the generic performance-level descriptors, and the stakes associated with the assessment and the performance levels.

Participants must also understand their role in the standard setting process. Typically, results from a standard setting workshop are considered a recommendation to a policy-making group, such as a state board or commissioner. If this is the case, standard setting participants should be informed of this fact from the beginning; the speaker should discuss who will review the recommendations and who will ultimately make the final decisions.

The speaker should also emphasize the secure nature of the test materials at the standard setting workshop. Participants need to know which materials they may take away from the standard setting, as well as what they can discuss outside the workshop. The speaker may wish to specify, for example, that participants may not discuss individual test items, the cut scores, or impact data with anyone outside the workshop, but they can talk about the standard setting process in which they participated.

Appendix to Section II

This Appendix contains generic materials based on two cuts (*Proficient and Advanced*) and three performance levels (*Basic, Proficient, and Advanced*).

Materials specific to your state will be based on these generic materials and will be created prior to the standard setting.

Appendix to Section II

Generic Materials

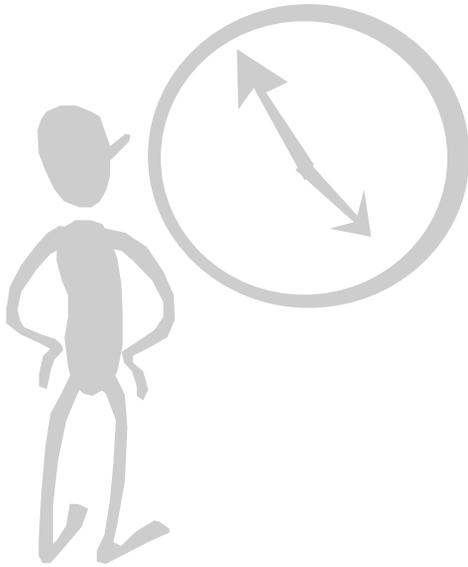
Master Agenda.....	App IIA-1 to 6
Overheads to train participants in the Opening Session.....	App IIB-1 to 9
Training Materials	
Bookmarks.....	App IIC-1 to 2
Bookmark Graphic	App IIC-3
Bookmark Placement.....	App IIC-4
Frequently Asked Questions	App IIC-5
Mastery	App IIC-6 to 10
Check Set.....	App IIC-11
Evaluation	App IIC-12 to 14
Overheads the Sponsoring Agency May Use in the Opening Session	App IID-1 to 7



**Assessment
Grades
Content Areas
*Bookmark Standard Setting Workshop***

Master Agenda

Month & Dates, City, State



Welcome to the Bookmark Standard Setting Workshop!
The State Department of Education and CTB/McGraw-Hill would like to thank you for your time and expertise during this important process.

Please use this agenda to orient yourself during the workshop. If you have any questions or concerns, please contact a member of the CTB Standard Setting Team.

- 12:00 PM** **Table Leader registration**
Please check in at the reception area to sign a non-disclosure agreement, get your nametag, and collect any other information.
- 1:00 PM** **Table Leader training**
You will receive an overview of the standard setting workshop, learn how the Bookmark Procedure works, and discuss your role and responsibilities during the workshop.
- 3:30 PM** **Target Student discussion**
Table Leaders engage in structured discussions about the knowledge, skills, and abilities they expect to be demonstrated by students in each performance level.
- 5:00 PM** **Dismissal**

Welcome!

Weekday, Month & Date

- 7:30 AM Registration and continental breakfast***
Participants check-in at the reception table; Table Leaders need not register again. Continental breakfast is served.
- 8:30 AM Opening Session**
All participants are formally welcomed and receive an overview of the standard setting workshop.

After the Opening Session, participants go to their assigned breakout rooms and tables.
- 10:30 AM Take operational test**
Participants sign out materials and then take the operational test under testing conditions similar to those experienced by students.
- 12:00 PM Lunch**
The group stops work for a one-hour lunch.
- 1:00 PM Study constructed-response items**
The Group Leader leads an examination of each constructed-response item, its scoring rubric, and anchor papers, focusing on the knowledge, skills, and abilities required to achieve each score point.
- 2:00 PM Target Student discussion**
The group discusses the knowledges, skills, and abilities expected of students in each performance level.
- 3:00 PM Begin discussion of each item in the Ordered Item Booklet**
Facilitate a discussion of each item in the OIB. Start with the first item, and discuss each item in turn, focusing on what each item measures and what makes it harder than the previous items. Record these details on the Item Map.
- 4:15 PM Secure materials collection**
The Group Leader facilitates collection of the secure materials from all participants.
- 4:30 PM Secure materials audit**
After participants are dismissed by the Group Leader, Table Leaders audit materials at one other table.
- 4:45 PM Table Leader debrief**
Table Leaders discuss the events of the day and plans for the next day with the Group Leader.
- 5:00 PM Table Leader dismissal**

*A 15 minute break will be held from 10:00-10:15 am and from 2:30-2:45 pm.

<p><i>Discuss</i></p> <p>Weekday, Month & Date</p>

- 7:30 AM** **Continental breakfast**
Continental breakfast is served.
- 8:30 AM** **Finish discussion of each item in the Ordered Item Booklet**
Continue discussing each item in turn, focusing on what each item measures and what makes it harder than the previous items. Record these details on the Item Map.
- 12:00 PM** **Lunch**
The group stops work for a one-hour lunch.
- 1:00 PM** **Orientation to bookmark placement and Round 1 ratings**
A member of the CTB Standard Setting Team introduces bookmark placement, explaining how bookmarks are placed and what bookmarks mean. After this brief presentation, a short checkset is given, followed immediately by Round 1 bookmark placement.
- 3:00 PM** **Discuss Round 1 as a table**
Lead a discussion surrounding the ratings made in Round 1.
- 3:30 PM** **Round 2 ratings**
After your Round 1 discussion, begin Round 2 bookmark placement.
- 4:15 PM** **Secure materials collection**
The Group Leader facilitates collection of the secure materials from all participants.
- 4:30 PM** **Secure materials audit**
After participants are dismissed by the Group Leader, Table Leaders audit materials at one other table.
- 4:45 PM** **Table Leader debrief**
Table Leaders discuss the events of the day and plans for the next day with the Group Leader.
- 5:00 PM** **Table Leader dismissal**

*A 15 minute break will be held from 10:00-10:15 am and from 2:30-2:45 pm.

<p>Weekday, Month & Date</p>	<p><i>Bookmark</i></p>
---	------------------------

- 7:30 AM** **Continental breakfast**
Continental breakfast is served.
- 8:30 AM** **Discuss Round 2 as a large group**
A summary of the voting from each table is presented to the entire group. Impact data are presented that indicate the percentage of students in each performance level based on the median Round 2 bookmarks. Afterwards, the Group Leader leads a discussion on each bookmark, very similar to the discussions of Round 2.
- 9:30 AM** **Round 3 ratings**
The Group Leader directs all participants to make their Round 3 bookmark placements.
- 10:00 AM** **Presentation of final results**
Round 3 Results and impact data are presented to the entire group.
- 11:00 AM** **Descriptor Writing**
The Group Leader explains Descriptor Writing to participants.
- 12:00 PM** **Lunch**
The group stops work for a one-hour lunch.
- 1:00 PM** **Continue Descriptor Writing**
- 4:00 PM** **Secure materials collection**
The Group Leader facilitates collection of the secure materials from all participants.
- 4:15 PM** **Evaluations**
Each participant is asked to complete an evaluation of the standard setting.
- 4:30 PM** **Secure materials audit**
After participants are dismissed by the Group Leader, Table Leaders audit materials at one other table.
- 4:45 PM** **Table Leader debrief**
Table Leaders debrief with the Group Leader.
- 5:00 PM** **Table Leader dismissal**

**A 15 minute break will be held from 10:00-10:15 am and from 2:30-2:45 pm.*

Final Round

Weekday, Month & Date

Why do we do Secure Materials Collection?

A thorough collection of secure test materials protects both the reliability of the testing program and the substantial monetary investment in the assessment. A structured method of collection has been established to gather effectively all of the secure material at the workshop. Each day as you facilitate secure materials collection at your table, refer to this guide for instructions and suggestions.

During the collection, participants should place each secure item, one at a time, in a pile on the table in front of them. After the process, each participant will have a single stack of materials, each stacked in the same way as everyone else in the room. Please follow these steps to facilitate the process.

How do I do Secure Materials Collection?

1. Get the attention of all the participants at your table. Discourage any side conversations or inattention.
2. Using the list provided, call out each item, one at a time, and watch participants place that item on their stack. Discourage participants from moving ahead. Ensure that participants have placed the item in their stack before moving on.
3. Proceed through the list until each piece of secure material has been collected. Direct participants to place a rubber band around their stack when completed.
4. If any participants wish to leave additional items with their materials overnight, encourage them to place it beneath their stack, inside the rubber band.
5. Once you have supervised the collection of secure materials and are satisfied that all items have been collected, inform the Group Leader.

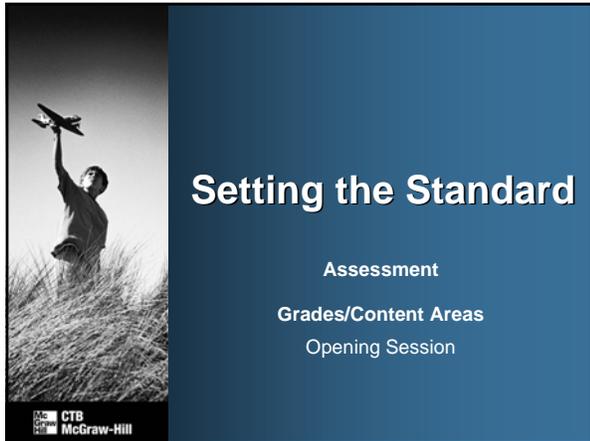
What should I expect from Secure Materials Collection?

The materials collected from your table will be stored in a secure facility overnight and returned in the morning. For added security, the materials may be audited as part of the overall test security process.

Generally, secure materials collection goes smoothly. If you have any questions about the collection process, or if you have a concern about test security at the standard setting workshop, please contact your Group Leader or a member of the CTB Standard Setting team.

Secure Materials

The Bookmark Standard Setting Procedure © 1999 by CTB/McGraw-Hill.



Setting the Standard

Assessment
Grades/Content Areas
Opening Session

CTB
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What is standard setting?

- A process that lets experts make judgements about the content that the *Proficient* student should know.
 - Also, *Advanced* students.

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McGraw-Hill

Why standard setting?

- Content standards define what students are tested on.
 - These are things students *should* be able to do.
 - The state has content standards in content areas.
- Performance standards define what students *can do* in each performance level.
 - You will actively discuss your expectations of students in each performance level.

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Performance Levels

- Specify the knowledge, skills and abilities a student needs to know in order to be classified as *Basic*, *Proficient*, or *Advanced*.



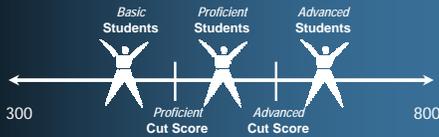
How do we set our standards?

- ~~Percentages~~
 - Arbitrary
 - Does not consider content
 - Test-specific
- Content
 - Uses pre-established content standards
 - Considers the educational objectives
- Bookmark Standard Setting Procedure



Purpose of the Standard Setting

- Allows cut scores to be set on the test scale
- The test scale represents the ability of students



Purpose of the Standard Setting

- Set a cut score on the test scale.
- Students who meet or exceed the cut score will have enough knowledge, skills and abilities to be classified as *Proficient* on the state tests.
 - Also *Advanced*.
- Content decisions will be based on state content standards.



Bookmark Standard Setting

- Item-centered method
- Content-based decisions



Committee Roles

- Group Leaders
- Table Leaders
- Participants
- State Department of Education
- CTB

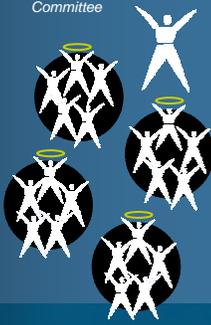
Standard Setting Committee



Committee Roles

Standard Setting Committee

- Group Leader
 - Facilitator
 - Participants stay focused on task
 - Participants interact with their own group
 - Participants finish in a timely manner
 - Leads discussion
 - Materials collection
 - Secure materials

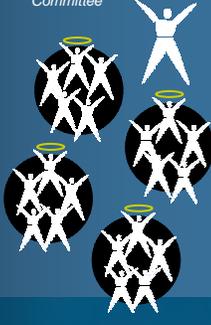


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Committee Roles

Standard Setting Committee

- Table Leaders
 - Lead discussion at the table
 - Standard setters
- Participants
 - Standard setters



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Workshop Overview

- Round 1
 - Study test items
 - Make ratings
- Round 2
 - Discuss ratings in a small group
- Round 3
 - Discuss ratings in a large group
- Descriptor Writing

CTB McGraw-Hill

Ordered Item Booklets

- One boxed item per page
- Easiest item first, hardest item last
- Items increase in difficulty



Item Map

Print Name: _____ Group Number: _____

Order of difficulty (easy to hard)	Location	Form	Item No.	Item Type	Score Key	Content Strand ¹	What does this item measure? That is, what do you know about a student who can respond successfully to this item/score point?	Why is this item more difficult than the preceding items?
1	.220	12	1	MC	B	1		N/A
2	.225	9	4	MC	C	4		
3	.229	9	3	MC	B	5		
4	.240	12	2	MC	D	1		
5	.241	12	4	MC	B	4		
6	.256	12	7	CR	1/2	1		
7	.282	9	5	MC	A	1		
8	.282	12	7	CR	2/2	1		
9	.303	9	6	MC	B	2		
10	.321	9	8	MC	B	2		
11	.401	9	9	MC	C	4		

1 = Number Sense, Properties, & Operations; 2 = Measurement; 3 = Geometry; 4 = Data Analysis, Statistics, & Probability; 5 = Algebra & Functions



Ordered Item 1

1

1. Kitty is taking a trip on which she plans to drive 300 miles each day. Her trip is 1,723 miles long. She has already driven 849 miles. How much farther must she drive?

A. 574 miles
 B. 874 miles
 C. 1,423 miles
 D. 2,872 miles



6 rubric

SOLUTION:

For one day, the sum is \$1.75. For 5 days, the sum is \$8.75. Therefore, he should ask his mother for nine one-dollar bills (or 1 \$5 bill and 4 \$1 bills) .

Answer may be given pictorially.

Note: No explanation is asked for, so paper could have small error, such as copying a number incorrectly and still get a score of 2, provided method and answer are correct.

SCORING GUIDE:

0 Incorrect response -- includes \$1.75 or \$2; also \$975 or \$875.00

① \$8.75 or 875
OR
One day is \$1.75 so he needs \$2 each day, so \$10 for a week (picture of \$10 bill is acceptable)
OR
correct method but rounded down to \$8 (this requires work to be shown)
OR
correct method but small error and incorrect response of \$7 to \$11, inclusive

2 Correct response



6 exemplar

7. Sam can purchase his lunch at school. Each day he wants to have juice that costs 50¢, a sandwich that costs 90¢, and fruit that costs 35¢. His mother has only \$1.00 bills. What is the least number of \$1.00 bills that his mother should give him so he will have enough money to buy lunch for 5 days? **\$8.75**



8

Score	7. Sam can purchase his lunch at school. Each day he wants to have juice that costs 50¢, a sandwich that costs 90¢, and fruit that costs 35¢. His mother has only \$1.00 bills. What is the least number of \$1.00 bills that his mother should give him so he will have enough money to buy lunch for 5 days?
Point	
2 of 2	



Agenda

- Opening Session
- Take the test
 - Individual Activity
- Study the constructed-response items
 - Table Activity
- Discuss the Target Students
 - Table Activity
- Study the ordered item booklet
 - Table Activity



Agenda

- Make Round 1 bookmark placements
 - Individual Activity
- Round 2
 - Review Round 1 results in tables
 - Discuss in tables
 - Make new judgments individually



Agenda

- Round 3
 - Review Round 2 results as a large group
 - Discuss as a large group
 - Make new judgments individually
- Review final results
- Descriptor Writing
- Evaluate the Standard Setting





I am placing my

***Proficient
bookmark***

here because students who have mastered the items in front of the bookmark have demonstrated enough knowledge, skills, and abilities to be considered ***Proficient.***

I am placing my

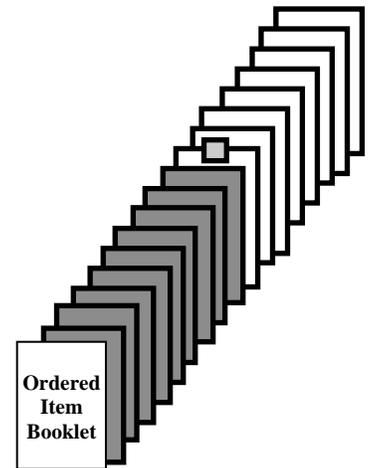
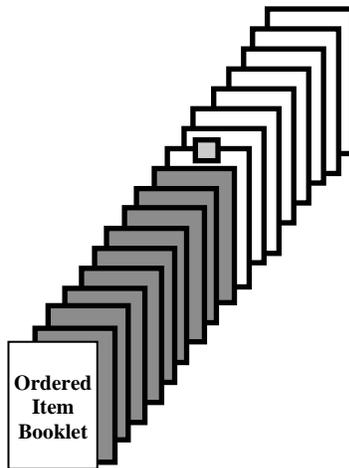
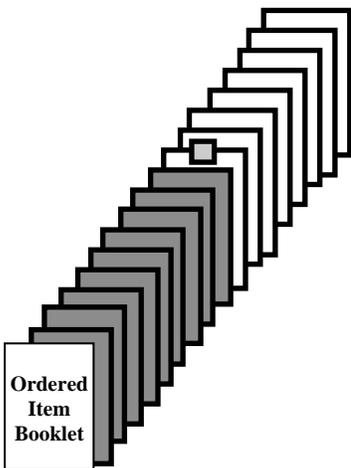
***Proficient
bookmark***

here because students who have mastered the items in front of the bookmark have demonstrated enough knowledge, skills, and abilities to be considered ***Proficient.***

I am placing my

***Proficient
bookmark***

here because students who have mastered the items in front of the bookmark have demonstrated enough knowledge, skills, and abilities to be considered ***Proficient.***



I am placing my

***Advanced
bookmark***

here because students who have mastered the items in front of the bookmark have demonstrated enough knowledge, skills, and abilities to be considered ***Advanced.***

I am placing my

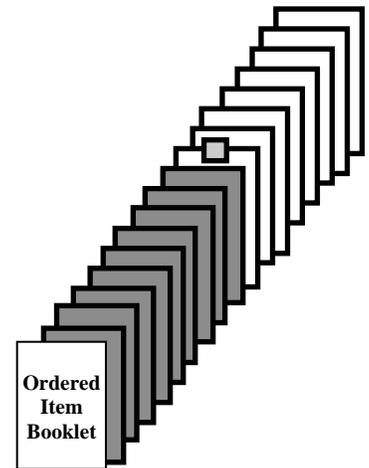
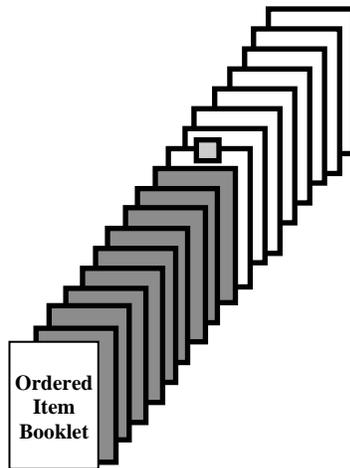
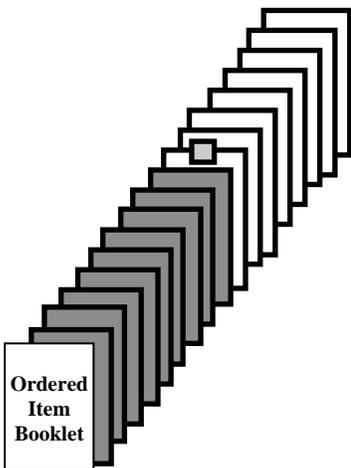
***Advanced
bookmark***

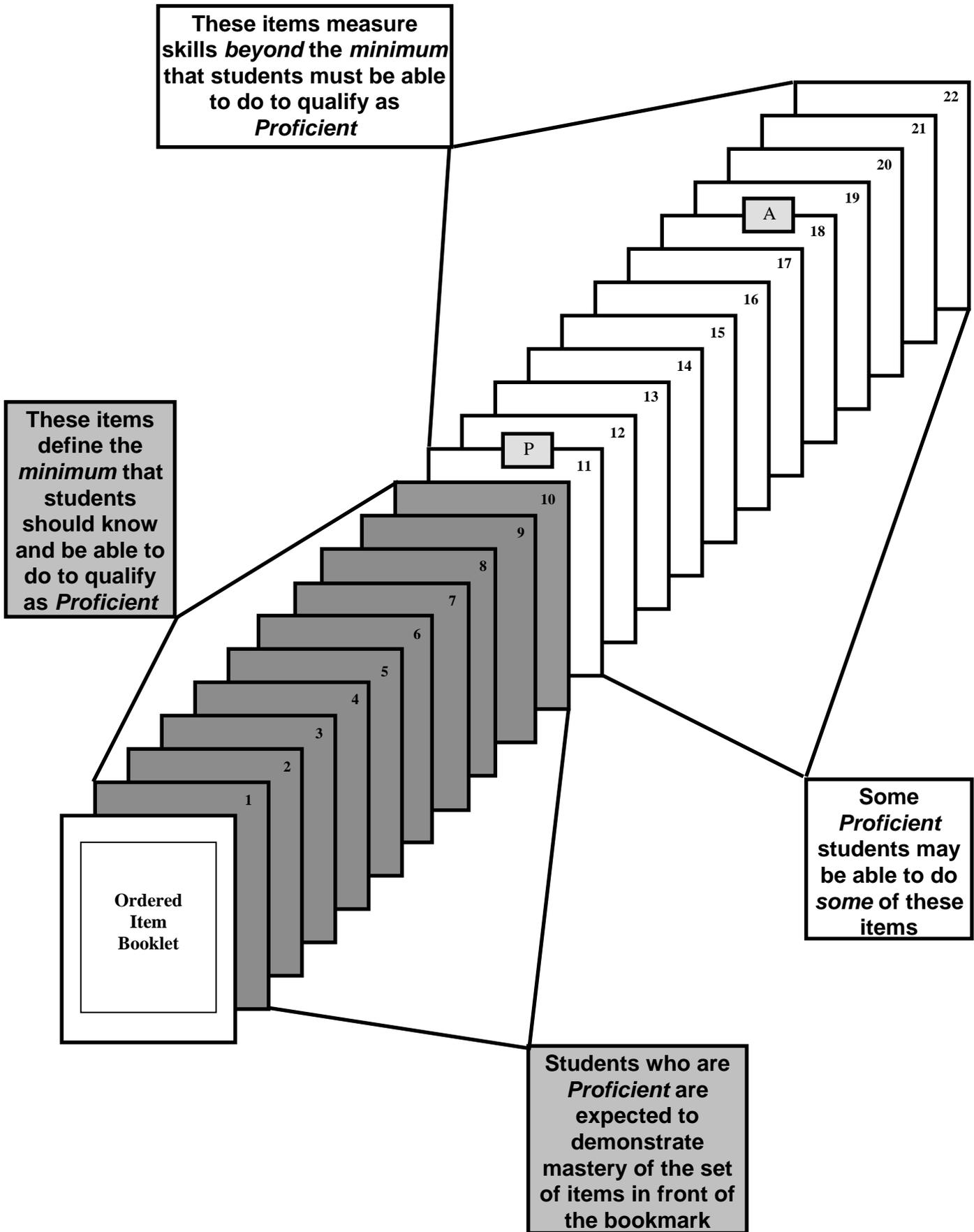
here because students who have mastered the items in front of the bookmark have demonstrated enough knowledge, skills, and abilities to be considered ***Advanced.***

I am placing my

***Advanced
bookmark***

here because students who have mastered the items in front of the bookmark have demonstrated enough knowledge, skills, and abilities to be considered ***Advanced.***





Bookmark Placement

These directions are written for placing the *Proficient* bookmark and apply analogously to the *Advanced* bookmark.

For whom am I placing this bookmark? The Target Student

When you place your *Proficient* bookmark, you are separating the highest ability *Basic* students from the lowest ability *Proficient* students. In other words, you are keeping in mind the Target Student who will just make it into the *Proficient* level.

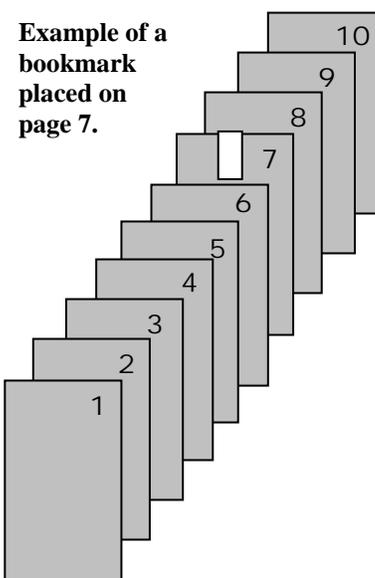
How do I place my bookmark? The Mechanics

The bookmark is exactly that: a bookmark. It separates the content students are expected to master from the content they are *not* expected to master. In the example below, a participant has placed the *Proficient* bookmark on page 7. With this bookmark placement, the participant says that a student must master the content represented by items 1 through 6 to be *Proficient*.

To place your bookmark, start at page 1 in the Ordered Item Booklet (OIB). Page through the OIB **looking at the content covered** until you find the *first* page where you think a student has demonstrated a sufficient body of evidence to indicate that the student *Proficient* relative to the content standards. This is the content you are saying a *Proficient* Target Student needs to master to just make it into the *Proficient* level.

Hold the pages that contain the content you expect the student to master in your left hand. Place your bookmark on the page **AFTER** the last item you expect the student to master. This page number is your bookmark. Write it on your Rating Form.

Hint: It may be helpful to first identify the interval of items in which you are reasonably certain the bookmark should be placed; then you can place the bookmark within that interval. If you are uncertain about where to place your bookmark, make your best decision; you will have two more rounds of voting to reconsider your bookmark.



What does my *Proficient* Bookmark mean? Some Answers

- You expect *Proficient* students to master the knowledge, skills, and abilities contained in the items **before** your bookmark.
- *Proficient* students should know and be able to do the items **before** the bookmark. For multiple-choice items, *Proficient* students should know the correct response. For constructed-response items, *Proficient* students should achieve the score points before the bookmark.

Is my bookmark the same as a raw score? NO

It is very important to remember that your bookmark placement is *not* equal to a raw score. In the example above, the *Proficient* bookmark was placed on page 7. The participant was *not* saying that a student must get six items correct to be classified as *Proficient*. This participant is saying that a barely *Proficient* student must master the content measured by the items on pages 1 through 6. The numbers in the OIB correspond to the rank order of difficulty of each item. These numbers do *not* correspond to a raw score.

Frequently Asked Questions about Bookmark Placement

These questions are written in reference to the *Proficient* bookmark and apply analogously to the *Advanced* bookmark.

How do I know if I placed my bookmark in the “right” place?

The “right” place is a matter of judgment, *your* judgment. You are placing your bookmark based on the content you expect students to know and be able to do.

I set my bookmark based on the content I expect students to know and be able to do, that is, the content I expect students to master. What is the definition of mastery?

We look at mastery by considering the likelihood with which students will respond correctly to the items. This question is answered in more depth in the *Mastery* handout.

If a student misses some items before the *Proficient* bookmark and gets some correct after the bookmark, is that student still *Proficient*?

A student does *not* have to get every item before the bookmark correct to be *Proficient*. *Proficient* students can miss some items *before* the bookmark and correctly respond to some items *after* the bookmark.

Does the page number on which I place my bookmark correspond to the raw score a student must get on the test?

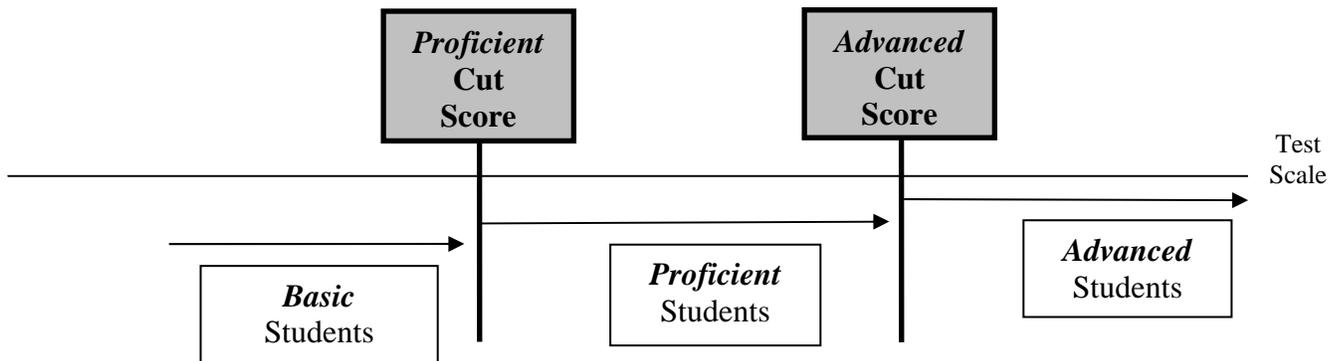
No. Remember, you are placing your bookmark based on the content you expect students to know and be able to do. You are *not* making your decision based on the number of items students must answer correctly. The bookmark is placed on a *page* in the Ordered Item Booklet. This page number corresponds to the difficulty ordering of the item, *not* to the raw score.

Should I place my bookmark in the first place in the Ordered Item Booklet where all the content standards have occurred?

Not necessarily. The test only samples the content domain. In some cases, some content standards will only be represented by difficult items that would be hard for most students to master.

How many bookmarks do I set?

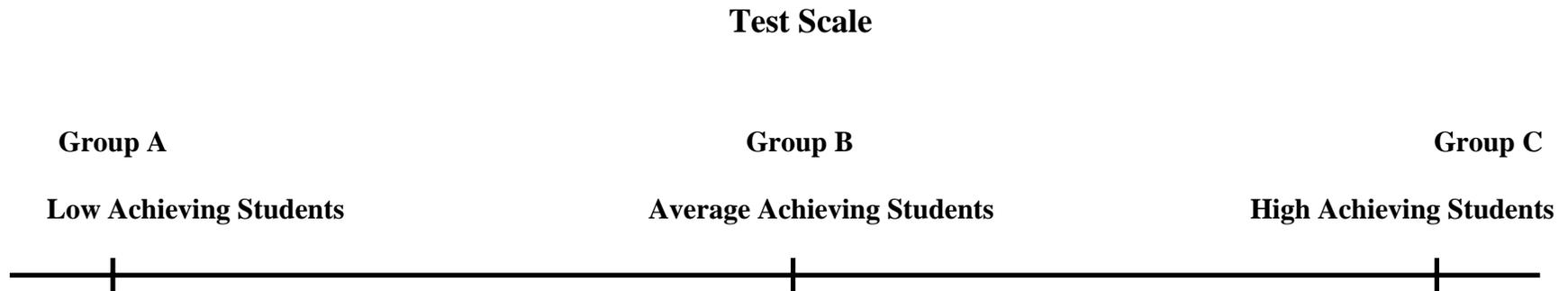
You set one less bookmark than the number of proficiency levels. For this assessment, you will set two bookmarks to separate students into three performance levels.



How Participants' Bookmark Judgments Relate to Expected Student Achievement within Each Proficiency Level

You are participating in this standard setting because of your experience with students and your knowledge of the state content standards, curriculum, and current instructional practices. You will be making judgments that will operationalize your expectations for the level of achievement students must demonstrate in order to place in each proficiency level. To understand how your judgments relate to expected student achievement within each proficiency level, consider the following examples.

Consider how students at various scale locations might perform on an imaginary assessment that consists of a total of 50 score points. In particular, we will consider the performance of groups of students who are at three specific points on the test scale. Group A consists of 100 low achieving students, Group B consists of 100 average achieving students, and Group C consists of 100 high achieving students. Assume that the students have all taken the assessment and that the 100 students within each group have all obtained the exact same scale score. Note the location of the obtained scale score for each of the three groups on the test scale below.



The following three figures show how students in each of the three groups might perform on the assessment.

Figure A shows how many students in Group A responded correctly to each item in the ordered item booklet. Observe that the students in Group A performed well on the items that appear early in the ordered item booklet but performed poorly on the items that appear later in the ordered item booklet. This makes sense, because the items appear in order of difficulty, with the easiest item first and the hardest item last. For example, 99 of the 100 Group A students responded correctly to item 1, 67 of the Group A students responded correctly to item 10, but only 1 of the Group A students responded correctly to item 50.

We say that a group of like students have demonstrated mastery of the content represented by an item if at least 2/3 of the students (about 67 out of 100) in the group can be expected to respond successfully to the item. According to Figure A, Group A students have demonstrated mastery of items 1 through 10, but have not demonstrated mastery of items 11 through 50.

Figure A. The number (or percent) of Group A students who responded correctly to each item in the ordered item booklet.

item 1	item 2	item 3	item 4	item 5	item 6	item 7	item 8	item 9	item 10
<u>99</u> 100	<u>95</u> 100	<u>93</u> 100	<u>87</u> 100	<u>83</u> 100	<u>82</u> 100	<u>78</u> 100	<u>74</u> 100	<u>69</u> 100	<u>67</u> 100

item 11	item 12	item 13	item 14	item 15	item 16	item 17	item 18	item 19	item 20	item 21	item 22	item 23	item 24	item 25	item 26	item 27	item 28	item 29	item 30
<u>63</u> 100	<u>60</u> 100	<u>59</u> 100	<u>58</u> 100	<u>57</u> 100	<u>53</u> 100	<u>52</u> 100	<u>50</u> 100	<u>50</u> 100	<u>49</u> 100	<u>49</u> 100	<u>48</u> 100	<u>47</u> 100	<u>43</u> 100	<u>41</u> 100	<u>39</u> 100	<u>37</u> 100	<u>35</u> 100	<u>34</u> 100	<u>31</u> 100

item 31	item 32	item 33	item 34	item 35	item 36	item 37	item 38	item 39	item 40	item 41	item 42	item 43	item 44	item 45	item 46	item 47	item 48	item 49	item 50
<u>30</u> 100	<u>29</u> 100	<u>25</u> 100	<u>22</u> 100	<u>20</u> 100	<u>18</u> 100	<u>17</u> 100	<u>14</u> 100	<u>11</u> 100	<u>10</u> 100	<u>9</u> 100	<u>7</u> 100	<u>5</u> 100	<u>5</u> 100	<u>4</u> 100	<u>3</u> 100	<u>2</u> 100	<u>2</u> 100	<u>1</u> 100	<u>1</u> 100

Definition of Mastery
We say that a group of like students have demonstrated mastery of the content represented by an item if at least 2/3 (67/100) of the students in the group can be expected to respond successfully to the item.

Figure B shows how many students in Group B responded correctly to each item in the ordered item booklet. Observe that the students in Group B performed much better than students in Group A. That makes sense because Group B students are average achieving students while Group A students are low achieving students.

Before you read further, use Figure B and the definition of mastery stated in the box above to determine which items Group B has mastered.

Group B students have demonstrated mastery of the content reflected in items 1 through 30 of the ordered item booklet, but have not demonstrated mastery of the content reflected by items 31 through 50. This is true according to the definition, because at least 67 of the 100 Group B students responded successfully to each of items 1 through 30, but fewer than 67 of them responded correctly to items 31 through 50.

Figure B. The number (or percent) of Group B students who responded correctly to each item in the ordered item booklet.

item 1	item 2	item 3	item 4	item 5	item 6	item 7	item 8	item 9	item 10
<u>99</u> 100	<u>99</u> 100	<u>99</u> 100	<u>99</u> 100	<u>99</u> 100	<u>98</u> 100	<u>98</u> 100	<u>98</u> 100	<u>97</u> 100	<u>97</u> 100

item 11	item 12	item 13	item 14	item 15	item 16	item 17	item 18	item 19	item 20	item 21	item 22	item 23	item 24	item 25	item 26	item 27	item 28	item 29	item 30
<u>96</u> 100	<u>96</u> 100	<u>95</u> 100	<u>93</u> 100	<u>89</u> 100	<u>85</u> 100	<u>84</u> 100	<u>83</u> 100	<u>83</u> 100	<u>81</u> 100	<u>79</u> 100	<u>79</u> 100	<u>78</u> 100	<u>73</u> 100	<u>72</u> 100	<u>72</u> 100	<u>71</u> 100	<u>70</u> 100	<u>69</u> 100	<u>67</u> 100

item 31	item 32	item 33	item 34	item 35	item 36	item 37	item 38	item 39	item 40	item 41	item 42	item 43	item 44	item 45	item 46	item 47	item 48	item 49	item 50
<u>65</u> 100	<u>63</u> 100	<u>63</u> 100	<u>61</u> 100	<u>58</u> 100	<u>57</u> 100	<u>57</u> 100	<u>55</u> 100	<u>55</u> 100	<u>54</u> 100	<u>53</u> 100	<u>53</u> 100	<u>52</u> 100	<u>51</u> 100	<u>44</u> 100	<u>41</u> 100	<u>39</u> 100	<u>37</u> 100	<u>35</u> 100	<u>33</u> 100

Definition of Mastery
We say that a group of like students have demonstrated mastery of the content represented by an item if at least 2/3 (67/100) of the students in the group can be expected to respond successfully to the item.

Figure C shows how many students in Group C responded correctly to each item in the ordered item booklet. Observe that Group C performed much better than Groups A or B. That makes sense because Group C consists of high achieving students while Groups A and B consist of low and average achieving students, respectively.

Before you read further, use Figure C and the definition of mastery stated in the box above to determine which items Group C has mastered. Group C students have demonstrated mastery of the content reflected in items 1 through 45 of the ordered item booklet, but have not demonstrated mastery of the content reflected by items 46 through 50. This is true according to the definition, because at least 67 of the 100 Group C students responded successfully to each of items 1 through 45, but fewer than 67 of them responded correctly to items 46 through 50.

Figure C. The number (or percent) of Group C students who responded correctly to each item in the ordered item booklet.

item 1	item 2	item 3	item 4	item 5	item 6	item 7	item 8	item 9	item 10
<u>99</u> 100	<u>97</u> 100	<u>97</u> 100							

item 11	item 12	item 13	item 14	item 15	item 16	item 17	item 18	item 19	item 20	item 21	item 22	item 23	item 24	item 25	item 26	item 27	item 28	item 29	item 30
<u>97</u> 100	<u>97</u> 100	<u>95</u> 100	<u>95</u> 100	<u>94</u> 100	<u>93</u> 100	<u>92</u> 100	<u>92</u> 100	<u>91</u> 100	<u>89</u> 100	<u>89</u> 100	<u>89</u> 100	<u>88</u> 100	<u>88</u> 100	<u>88</u> 100	<u>87</u> 100	<u>87</u> 100	<u>86</u> 100	<u>85</u> 100	<u>84</u> 100

item 31	item 32	item 33	item 34	item 35	item 36	item 37	item 38	item 39	item 40	item 41	item 42	item 43	item 44	item 45	item 46	item 47	item 48	item 49	item 50
<u>83</u> 100	<u>81</u> 100	<u>81</u> 100	<u>81</u> 100	<u>80</u> 100	<u>80</u> 100	<u>79</u> 100	<u>78</u> 100	<u>77</u> 100	<u>75</u> 100	<u>74</u> 100	<u>72</u> 100	<u>70</u> 100	<u>68</u> 100	<u>67</u> 100	<u>64</u> 100	<u>58</u> 100	<u>53</u> 100	<u>49</u> 100	<u>46</u> 100

You have seen from the above examples that by using a specific definition of mastery, we can identify the content in the ordered item booklet that students at any location of the test scale have mastered.

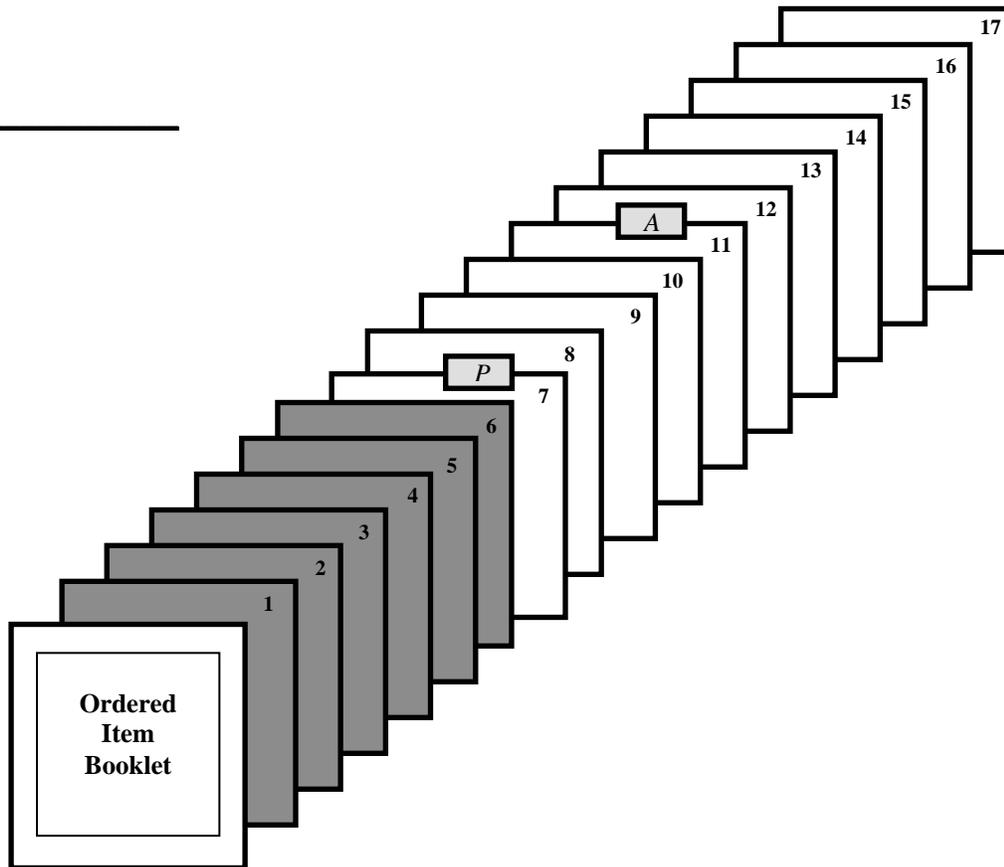
Also, if *you* identify a set of items in the ordered item booklet, the specific point on the test scale at which students have demonstrated mastery of the content you have specified can be determined. This is how the various cut scores are ascertained.

As experts, you will first specify the content in the ordered item booklet that you expect students to master in order to be classified as ***Proficient***. This means that you will identify the items that reflect the knowledge, skills, and abilities you expect all ***Proficient*** students to master. When you have made that judgment, the point on the scale at which students achieve that level of mastery can be identified.

CHECK SET

Table Number: _____

State, Round 1



Suppose the bookmarks were placed in this sample ordered item booklet as follows:

	<i>Proficient</i> Bookmark on Page #	<i>Advanced</i> Bookmark on Page #
Round 1	7	11

1. Which items does a student need to master to make it into the *Proficient* performance level?

Items ____ through ____

2. If a student mastered only items 1 through 5, in which performance level would this student be? (circle one)

Basic ***Proficient*** ***Advanced***

3. Suppose a student mastered items 1 through 6. Which performance level is this student in? (circle one)

Basic ***Proficient*** ***Advanced***

4. For students who are classified as *Proficient*, with at least what likelihood will they be able to answer item 6?

1/3 **1/2** **2/3** **3/4** **None of these**

5. Will the items BEFORE the *Proficient* bookmark be more or less difficult to answer than the items AFTER the bookmark or about the same? (circle one)

More difficult to answer **About the same** **Less difficult to answer**

**Assessment
BOOKMARK STANDARD SETTING EVALUATION**

PART I: About the Conference

Rating Scale

Please consider the statements below and circle the level of agreement or disagreement you have with each statement. A 5-point rating scale ranging from Strongly Disagree (SD) to Strongly Agree (SA) has been provided. Please select only 1 of the 5 options for each statement.

	1=Strongly Disagree (SD)	2=Disagree (D)	3=Neutral (N)	4=Agree (A)	5=Strongly Agree (SA)
	SD	D	N	A	SA
1. The Bookmark Standard Setting Procedure was well described.	1	2	3	4	5
2. The goals for this procedure were clear.	1	2	3	4	5
3. I felt that this procedure was fair.	1	2	3	4	5
4. Participating in the Bookmark Standard Setting Procedure increased my understanding of the test.	1	2	3	4	5
5. The conference was well organized.	1	2	3	4	5
BOOKMARK TRAINING AND PLACEMENT					
6. The training materials were helpful.	1	2	3	4	5
7. The training on Bookmark placement made the task clear to me.	1	2	3	4	5
8. Reviewing the Target Student helped me place my bookmarks.	1	2	3	4	5
9. Taking the test helped me place my bookmarks.	1	2	3	4	5
10. During Round 1, I placed my bookmarks without consulting other participants.	1	2	3	4	5
11. I understood how to place my bookmark.	1	2	3	4	5
12. I learned how to do the Bookmark placement as I went along, so my later ones may not be comparable to my earlier ones.	1	2	3	4	5
13. Overall, I was satisfied with my group's final bookmarks.	1	2	3	4	5
14. I would defend the <i>Proficient</i> cut score against criticism that it is too high.	1	2	3	4	5
15. I would defend the <i>Proficient</i> cut score against criticism that it is too low.	1	2	3	4	5
16. I would defend the <i>Advanced</i> cut score against criticism that it is too high.	1	2	3	4	5
17. I would defend the <i>Advanced</i> cut score against criticism that it is too low.	1	2	3	4	5
18. I had enough time to consider my Round 1 bookmarks.	1	2	3	4	5

19. I considered the content standards when I placed my bookmarks.	1	2	3	4	5
20. Overall, I believe that my opinions were considered and valued by my group.	1	2	3	4	5
21. I am confident that the Bookmark Procedure produced valid standards.	1	2	3	4	5
22. The ordering of the items in the ordered item booklet agreed with my perception of the relative difficulty of the items.	1	2	3	4	5
23. Overall, my table's discussions were open and honest.	1	2	3	4	5
PROFESSIONAL DEVELOPMENT					
24. Overall, I valued the conference as a professional development experience.	1	2	3	4	5
25. This experience will help me target instruction for the students in my classroom.	1	2	3	4	5

Part II: About You

Please tell us about yourself. This information will be used to better understand the Bookmark Procedure.

26. What is your occupation?

Classroom Teacher Education (non-teacher) Non-Education Professional

27. If you are a classroom teacher, what grade do you teach (or teach most often)? _____

28. How many years have you worked in your current profession? _____

29. Which content area did you work on during this standard setting? (circle one)

Reading

Mathematics

30. Which grade did you work on during this standard setting? (circle one)

3 5 8 High School

31. What is your education level? _____ Bachelor's Degree _____ Master's Degree _____ Doctorate

32. What is your gender? _____ Female _____ Male

33. What is your racial/ethnic background? (Please check a single box.)

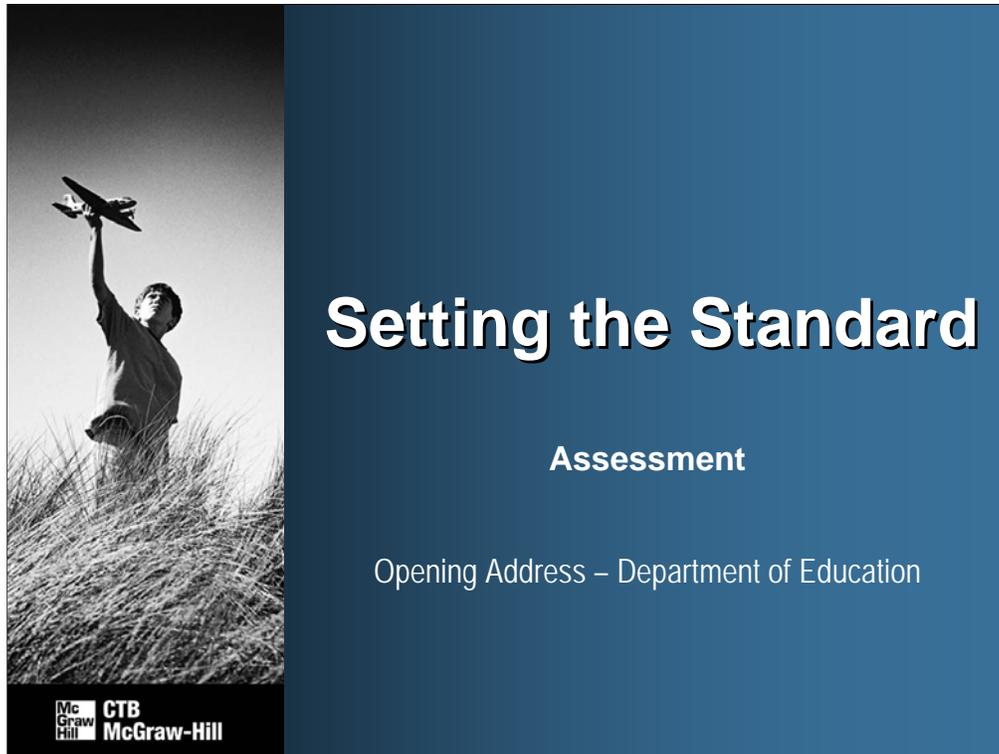
American Indian	<input type="checkbox"/>
Asian/ Pacific Islander	<input type="checkbox"/>
African American	<input type="checkbox"/>
Hispanic	<input type="checkbox"/>
White	<input type="checkbox"/>
Other (please specify)	<input type="text"/>

34. Do you have experience working in special programs? (Please check all that apply.)

Special Education	<input type="checkbox"/>
ELL/ESL	<input type="checkbox"/>
Vocational Education	<input type="checkbox"/>
Alternative Education	<input type="checkbox"/>
Adult Education	<input type="checkbox"/>
Other (please specify)	<input type="text"/>

Part III: Your Turn

35. Please feel free to expand on any of your responses above, make suggestions to improve future standard settings, and/or tell us what you liked and did not like about this conference.



CTB/McGraw-Hill would like to provide some slides for use during the state's opening address at the standard setting.

CTB recommends that a representative from the state department of education address participants before the standard setting. The purpose of this address is:

1. To welcome participants, and to establish the state as the sponsor of the standard setting process and CTB/McGraw-Hill as its facilitator.
2. To briefly describe how standard setting fits into the overall test creation process.
3. To describe the use(s) of the test within the state accountability program(s).
4. To describe the review process that will follow the standard setting workshop.
5. To set the tone for the workshop.

Of these, the fourth is particularly important for the state to cover during the opening address. CTB is an impartial facilitator of the process; the state is the only party that can describe the type of standards that it expects as an outcome.

The slides shown here are for example only. Please modify these slides in any way you see fit. Wherever possible, suggestions are provided in these notes.

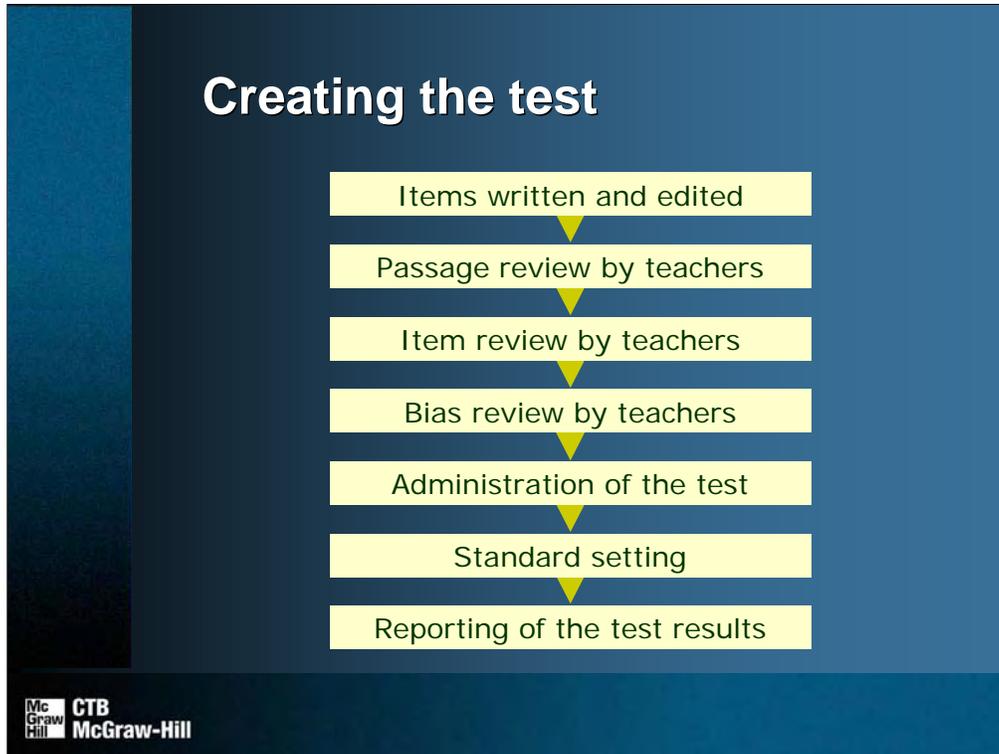
Welcome!

- The Department of Education appreciates your participation in this critical step in the test development process.



The state should warmly welcome the participants to the standard setting. Participants should feel that the process they are about to go through is both worthwhile and important; that they were selected because of their expertise and their standing in the educational community; and that the state will actively and strongly take into their comments and suggestions into account at the end of the process.

This is also an excellent time for the state to introduce all the staff from the state department of education that are present. (CTB will introduce its own staff during the opening session.) Often, the state will tell participants that if they have any questions during the process about the test or test policy, that they should feel free to seek out one of the state people to ask.



The state should put the standard setting into perspective for participants. Although some participants will have been part of the test development process from early on, others will not know where the standard setting fits into the process.

The state should emphasize the fact that teachers from the state have been involved from the inception of the test with passage reviews, item reviews, bias reviews, and the like. Participants should understand that the test items that they see during the standard setting have been reviewed by teachers several times, and that great care was taken to write and edit them in a way that was technically valid and culturally sensitive.

Standard setting is the final step before the release of reports to teachers and parents. It is an important step because it directly impacts students and teachers and may be used in the calculation of AYP.

Use of the test

- The results of the test are used in the state Adequate Yearly Progress (AYP) calculations.

Participants may have questions about AYP. The state should briefly outline the way that the test is used in accountability programs.

Sometimes, participants will use this opportunity to share their opinions with the state, especially about AYP, No Child Left Behind, the implementation of the test at their school, the inclusion/exclusion of their students in the accountability program, and the like. The state should be prepared to thank participants for their views, and to instruct participants to share these views privately with Department staff after the presentation.

If the tests are used in any high-stakes capacity, this is an appropriate time to discuss this fact.

Further review of cut scores

- After the standard setting, the cut scores will be reviewed by several groups.
 - The Technical Advisory Committee (TAC) is made up of local and national psychometric experts and will examine the standard setting for technical rigor.
 - The State Department of Education will review the cut scores for political feasibility and grade-to-grade articulation.
- The cut scores may be adjusted by these groups.

Often states hold a review process following the standard setting in which the participant-recommended cut scores may be modified. The state should describe the review process, including any groups that will examine, adjust, and/or approve the cut scores before they are implemented. These may include the Technical Advisory Committee (TAC), state board of education, business roundtable, state superintendent of education, or others.

The state should make sure that participants know that their recommendations and opinions will be carried forward in the process; however, they should also be aware that their recommendations may be adjusted to account for different considerations. For example, the cut scores from a standard setting are sometimes adjusted so that the impact data from each grade is well articulated.

Participants sometimes express concern that their recommendations will be discarded at the conclusion of the standard setting. The state should reassure participants that their recommendations will be taken to the next group and, even though they may be adjusted, the participant recommendations serve as the basis for the final cut scores.

Additionally, the state should direct participants to focus on the content of the test, and to make content-based decisions when setting performance standards. Since other review committees and entities will be reviewing the cut scores for technical and political rigor, the standard setting committee should concern itself primarily with content. CTB will reinforce this message whenever possible.

Expectations

- The Department of Education expects “_____” standards.

The state should set the tone for the standard setting by briefly describing the type of performance standards that it expects at the end of the process. On the slide, the placeholder “_____” should be replaced with whatever description is desired. The following are a few examples taken from other states.

- “reasonable but rigorous”
- “challenging and achievable”
- “world-class”
- “attainable”
- “NAEP-like”
- ...or any other phrase that conveys the desired meaning

If the state does not describe its expectations, it is highly unlikely that they will be achieved by the standard setting committee. The establishment of this tone is important to the perceived validity of the standard setting by the participants.



The state may wish to take questions at this time. Alternately, the state may wish to direct questions to Department staff after the address.

Again, participants should be thanked for their time and expertise. After this presentation, CTB will describe the standard setting process to participants.

Appendix to Section III

This Appendix contains generic materials based on two cuts (*Proficient and Advanced*) and three performance levels (*Basic, Proficient, and Advanced*).

Materials specific to your state will be based on these generic materials and will be created prior to the standard setting.

Appendix to Section III

Generic Materials

Sample Nomination Form.....	App IIIA-1
Sample Non-technical Description of Standard Setting.....	App IIIB-1 to 2
Sample Participant and Table Letters	App IIIC-1 to 2
Sample Performance-Level Descriptors	App IIID-1 to 2

Nomination to the Bookmark Standard Setting Procedure (BSSP) Committee

Note to Nominator: This form serves to nominate a <state> teacher or other education professional to the BSSP Committee. Twenty-four committee seats are available in each of the grade/content area: <grade/content areas>. Please be honest and specific in completing this form. Final committee assignments will be made by the State Department of Education from the pool of nominees. Successful candidates will be contacted on or about <date>. The standard setting will be held in <City> from <date range>. Committee members will receive information about travel and travel reimbursement.

About the Nominee

Name and Title

School, School District, and City

Telephone Number

E-mail Address

Profession Experience of the Nominee in the Educational Community
(Please be specific and include dates and length of service if known.)

Qualities that Make the Nominee Especially Suited for the BSSP Committee
(Please mention any specific content area expertise.)

Gender

Ethnicity, if known

About You

Name and Title

Telephone Number

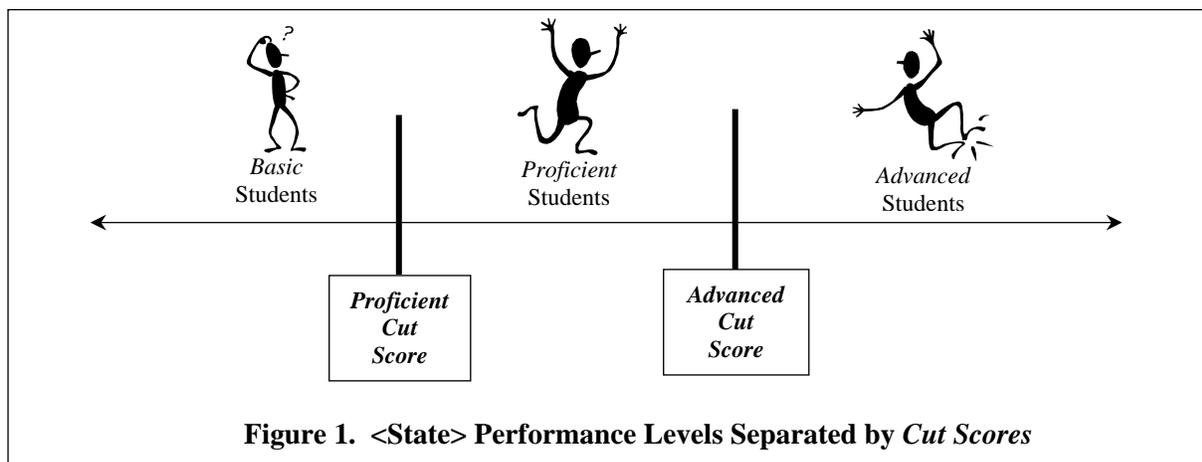
E-mail Address

Thank you for your nomination!
Please return to: <Name>, <Address>

Overview of Standard Setting

<State> assesses student performance in <grade/content areas>. Based on the results of these tests, students will be classified into three performance levels: *Basic*, *Proficient*, or *Advanced*. <State>educators may use these performance levels to target instruction, define an accountability model, or show academic progress over time. The performance levels will reflect the knowledge, skills, and abilities (KSAs) that students demonstrate on the <State> Assessments. Committees of educators will determine the KSAs needed for classification into the performance levels at a standard setting.

Standard setting is a method for determining the *cut scores* that separate students into performance levels (Figure 1). Typically, a standard setting is implemented with a committee of educators, who set *cut scores* after structured discussions of content, performance levels, test items, and expectations of student performance.



For educators, this is a variation of a routine task. Teachers regularly separate students into performance levels, such as A Students, B Students, C Students, D Students, and F Students. The teacher assigns cut scores to each performance level; for example, 90% for A Students, 80% for B Students, 70% for C Students, and 60% for D Students.

Bookmark Standard Setting Procedure

A standard setting is held to set valid, meaningful cut scores for a large-scale assessment. In <State>, committees of educators (the participants) will use the Bookmark Standard Setting Procedure to establish *cut scores* for the <State> Assessments.

The Bookmark Standard Setting Procedure is a groundbreaking process developed by CTB/McGraw-Hill. Since its inception in 1996, over 28 states have used Bookmark to set *cut scores* on large-scale assessments.

Bookmark Materials: The Ordered Item Booklet (OIB) and Item Map are key materials for the Bookmark Procedure. The OIB contains the test items ordered by difficulty, with the easiest item appearing first and the hardest item appearing last. The ordering is determined by student performance on the items. The Item Map provides information about each item in the OIB and has space for participants to record their thoughts about the items.

At the Bookmark Standard Setting Workshop

Occurring over a three-day period, the Bookmark Standard Setting Procedure typically includes training, three rounds of structured discussions and ratings to set the cut scores on an assessment, and description writing. Each grade/content area (e.g., Grade 4 Reading) will have a committee of educators to set the cut scores.

Round 1 Discussion and Bookmark Placement: In small groups (tables of six to eight people), participants examine each item in the OIB, discussing what each item measures and what makes it harder than the items before it. After this discussion, each participant sets a *cut score* by placing a bookmark in the OIB according to his or her own judgement of what content, for example, *Proficient* students should know and be able to do. The process is repeated for the other performance level, *Advanced*.

Rounds 2 and 3 Discussion and Bookmark Placement: In Round 2, participants discuss the rationale behind their original bookmark placements with the participants at their table. In Round 3, participants at all tables discuss their bookmark placement. After each round of discussion, participants may keep or adjust their bookmark placements. After the final round of bookmark placement, the recommended *cut score* for each performance level is the median of the bookmark placements in the final round.

Description Writing: Participants write performance-level descriptors that reflect the final recommended *cut scores*. In small groups, participants examine the items before a bookmark and describe the content measured by those items. The performance-level descriptors represent a summary of the knowledge, skills, and abilities students must be able to demonstrate to be classified into a performance level.

Sample Participant Orientation Letter

Date

Dear <Name>,

Congratulations! You have been nominated to participate in the standard setting for <Test Name>. Since only a select number of teachers across the state are being asked to participate in this important process, we would like to extend our congratulations! The purpose of this standard setting is to determine the types of content that students must master in order to be classified as *Basic*, *Proficient*, or *Advanced* on the <content area> assessments for <grade range>.

This Bookmark Standard Setting Workshop will be held in <City, State>, at the <convention center or hotel name>. The workshop will begin at <time> on <Day, Month Date, Year>, and will end at <time> on <Day, Month Date, Year>. As a voting member of the standard setting committee, it will be important for you to attend *all* workshop sessions during this time. Please plan on participating in the workshop each day from <time> to <time>. Lunch will be provided each day, as will overnight accommodations at the <hotel name> if you will be traveling over <number of miles> miles to attend the workshop.

Enclosed, please find some helpful materials that describe the standard setting procedure and your role in the process. Please read these materials before the workshop and bring them with you on the first day.

Again, you were nominated to participate in this process because of your experience and your demonstrated expertise in the area of <grade/content area>. If for any reason you are unable to attend the workshop, please notify us at once so we may select another qualified nominee to fill your place.

Once more, congratulations on your nomination for the standard setting! We look forward to working with you at the workshop.

Sincerely,

Name

Address

Sample Table Leader Orientation Letter

Date

Dear <Name>,

Congratulations! You have been nominated to participate in the standard setting for <Test Name>. Moreover, because of your outstanding qualifications, you have been selected to participate as a Table Leader at the standard setting workshop. Since only a select number of teachers across the state are being asked to participate in this important process, and even fewer are invited to serve as Table Leaders, we would like to extend our congratulations on your selection. The purpose of this standard setting is to determine the types of content that students must master in order to be classified as *Basic*, *Proficient*, or *Advanced* on the <content area> assessments for <grade range>.

As a Table Leader, your assistance is vital to the success of the standard setting. During the workshop, you will facilitate discussions with a small group of your peers—generally between six and eight individuals—from across the state. We will conduct a training session on <Day, Month Date, Year> from <time> to <time> to acquaint you with the Bookmark Standard Setting Procedure.

This Bookmark Standard Setting Workshop will be held in <City, State>, at the <convention center or hotel name>. The workshop will begin at <time> on <Day, Month Date, Year>, and will end at <time> on <Day, Month Date, Year>. As a voting member of the standard setting committee, it will be important for you to attend all workshop sessions during this time; please plan on participating in the workshop each day from <time> to <time>. Lunch will be provided each day, as will overnight accommodations at the Sea Breeze if you will be traveling over <number of miles> miles to attend the workshop.

Enclosed, please find some helpful materials that describe the standard setting procedure and your role in the process. Please read these materials before the workshop and bring them with you on the first day.

Again, you were nominated to participate in this process because of your experience and your demonstrated expertise in the area of <grade/content area>. If for any reason you are unable to attend the workshop, please notify us at once so we may select another qualified nominee to fill your place.

Once more, congratulations on your nomination for the standard setting and your selection as a Table Leader! We look forward to working with you at the workshop.

Sincerely,

Name
Address

Sample Generic Performance Level Descriptors

NAEP's General Performance Level Descriptors

(Achievement-level definitions adopted by NAGB on May 11, 1990)

Advanced. Signifies superior performance beyond the proficient grade-level mastery at grades 4, 8, and 12. For 12th grade the advanced level shows readiness for rigorous college courses, advanced technical training, or employment requiring advanced academic achievement.

Proficient. Represents solid academic performance for each grade tested—4, 8, and 12—and reflects a consensus that students reaching such a level have demonstrated competency over challenging subject matter and are well prepared for the next level of schooling. At grade 12 the proficient level will encompass a body of subject-matter knowledge and analytical skills, of cultural literacy and insight, that all high school graduates should have for democratic citizenship, responsible adulthood, and productive work.

Basic. Denotes partial mastery of the knowledge and skills that are fundamental for proficient work at each grade—4, 8, and 12. For 12th grade this is higher than minimum competency skills (which normally are taught in elementary and junior high schools) and covers significant elements of standard high school-level work.

General Performance Level Descriptors

Advanced. Advanced students demonstrate superior academic performance evidenced by achievement substantially beyond the level of mastery described for the Proficient student.

Proficient. Attainment of at least this level is the goal for all students. Proficient students demonstrate solid academic performance and mastery of the challenging subject matter reflected by the content standards. This includes subject-matter knowledge, application of such knowledge to real world situations, and content-relevant analytical skills. Students who perform at this level are well prepared to begin work on even more challenging material that is required for the next grade level.

Basic. This level denotes partial mastery of the knowledge and skills that are fundamental for proficient work. Basic students demonstrate competency of the prerequisite skills necessary to begin working on the challenging content required of the Proficient student, but do not demonstrate mastery of that challenging content.

Below Basic. Below Basic students do not show sufficient evidence of the prerequisite skills necessary for Proficient work. Students who perform at the “Below Basic” level have serious gaps in knowledge and skills. They, in all likelihood, require a considerable amount of additional work and remediation in the basic skills that are prerequisite to the challenging work expected at the current grade level.

Sample Generic Performance Level Descriptor

Rhonda's Story

by Joe Morton

Minimally Passing – definition – A Minimally Passing student should demonstrate “sufficient mastery of fundamental content in certain required courses that students are required to pass in order to receive a high school diploma.”

Now, let us transfer “mastery of fundamental content” to a living, breathing member of the Class of 2001. We can't sufficiently do our job until we associate this week's work with current and future year's high school students. In order to do this, let us isolate on one student.

This student's name is Rhonda. Rhonda is currently in the 11th grade in an Alabama high school. Her mother's name is Rita. Rita is a high school graduate. She is 41 years old. She has health problems that keep her from holding a full-time job. She works part-time as a housekeeper and earns \$4,000 per year. Rhonda's father is Jeremiah. He is a high school dropout. He quit when he was 16 years old and in the 10th grade. He works full-time in the local textile industry making socks. He earns \$18,000 per year.

Rhonda is the oldest of 5 children. All children are in school and all qualify for free breakfast and lunch. The household has no subscriptions to any newspapers or magazines. They attend church on an average of 2 times per month.

Rhonda works 20 hours per week at McDonald's. She is considered a good employee. She arrives on time and has a good attitude. Rhonda has been in the same school district since kindergarten. In the 3rd grade, she was falling behind her classmates and was referred for special education evaluation. She did not qualify, but was considered a slow learner. With the help of Title I and the PTA sponsored tutoring program, Rhonda has managed to pass each grade and is on track for graduation.

She is considered by her teachers to be a diligent student who is attentive in class. She has failed one high school class (Algebra I in the 9th grade) but took it again as a 10th grader and passed with a 60.3 average. She is currently passing Biology as an 11th grader with a 60.7 average. She has Cs in English and Social Studies and an overall GPA of 2.08 on a 4.0 scale.

Rhonda is not a discipline problem. She is not an attendance problem. She is not a student leader. She is not a cheerleader. She is not a star athlete. She will probably not attend college but may try to attend community college if work schedules permit. Rhonda is on track (just barely) to pass all required credits for graduation. Her sole remaining obstacle is the Alabama High School Graduation Exam.

So, herein lies the challenge. As you define Minimally Passing, keep a visual image of Rhonda in your mind. Your goal is not to set the scale score for the valedictorian; rather it is to *find Rhonda's score*.

Eric, who is graduating with a 4.35 GPA on a 4.0 scale and will attend Harvard in the fall on 17 scholarships, is not our concern this week. At the same time, we are not overly concerned about Thomas who sleeps in class all day and who is consistently in and out of detention hall and alternative programs for school rules violations. He also never turns in his class work and prides himself on never taking a textbook home at night.

Your objective is to find the correct mark on each subject of the test for Rhonda. Keep Rhonda in your mind and in your heart and you will recommend the correct score.