

# **Alaska High School Graduation Qualifying Exam**

## **HSGQE Standard Setting Technical Report**

**Submitted to the  
Alaska Department of Education and Early Development  
June 4, 2001**



**CTB/McGraw-Hill  
20 Ryan Ranch Road  
Monterey, California 93940**

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# 1. Introduction

A standard setting conference for the High School Graduation Qualifying Exam (HSGQE) administered in Reading, Mathematics, and Writing was held in Anchorage, Alaska, from June 12 to 14, 2000. Passing cut scores and category descriptions were established for the Alaska Department of Education and Early Development (ADEED). This report provides a summary of the conference and documents the cut scores and category descriptions produced by conference participants.

## 1.1 Background

The Alaska HSGQE is a statewide test administered operationally for the first time to HSGQE (Grade 10) students in Spring 2000. Test development was conducted by CTB in close cooperation with the ADEED. The HSGQE operational form is administered twice a year. The assessment includes both constructed-response tasks and multiple-choice items. Items and tasks from the first operational form and the item pool were included in the standard setting workbooks.

The cut score was determined using the Bookmark procedure (Lewis, Mitzel, & Green, 1996). Conference participants selected one cut score, which in turn determined the two categories of student achievement: “Not Passing” and “Passing”. After determining the cut score, participants wrote descriptions of the Passing category to be used in score reports and other State materials. An agenda for the conference is included as Appendix A.

## 1.2 Conference Participants

Approximately 60 participants were invited for all three content areas, forming three panels of approximately 20 participants or “judges” within each content area. Alaska’s panels were representative of the State’s educational, business, and professional communities. Panelists were selected based on a statewide nomination process, whereby school superintendents, city mayors, and local business leaders identified outstanding candidates.

## 1.3 Conference Staff

The conference was designed and organized cooperatively by CTB and ADEED staff members. Linda Judd of the ADEED made conference arrangements for the facilities and Alaska participants. CTB’s Research department conducted the conference. Presentations were led by Dr. Valerie Link, the primary research monitor for the contract, and Dr. Karla Egan. The conference was designed by Research staff. Marjorie Sanders is CTB’s Program Manager for the contract, and Linda Gardner is the Project Coordinator. The Publishing and Research departments supplied the following large-group leaders for each panel:

### Large-Group Leaders

Kathy Wendell, Writing  
Jason Schwartz, Mathematics  
Barbara Mountrey, Reading

**ADEED Staff**

Bruce Johnson, Assistant Commissioner  
 Richard Smiley, Director of Assessments  
 Linda Judd, Project Assistant

## 2. Cut Scores: Summary of Round 3 Results

The cut score was established in the customary three rounds using the Bookmark procedure. The final cut score for each content area represents the median of all participants voting in Round 3 for a particular content area. The table below shows the recommended median cut scores (with the 98 percent confidence interval applied), and the percents of students at and below each cut for Reading, Writing and Mathematics.

### Alaska High School Graduation Qualifying Exam Round 3 (Final) Achievement Level Results

Content Area	Number of Students Tested	Scale Score Cut (Median)	Percent Passing Students	Percent Not Passing Students
Reading	8275	305	74.7	25.3
Writing	8244	356	47.6	52.4
Mathematics	8179	383	33.2	66.8

The percent data are based on testing participation sizes of approximately 8,200 students for each content area. Detailed voting data, by group, is presented in Appendix B. These cut scores create the scale score ranges for each achievement level detailed in the table below.

### Alaska High School Graduation Qualifying Exam Achievement Level Scale Score Ranges

Content Area	Achievement Level	Scale Score Range
Reading	Passing	305 – 600
	Not Passing	100 – 304
Writing	Passing	356 – 600
	Not Passing	100 – 355
Mathematics	Passing	383 – 600
	Not Passing	100 – 382

Appendix B gives summary statistics for each small group's judged cut point placements by round. Appendix C shows a graphical representation of each group's cut points by round. The graphs also show the convergence of group judgments across the three rounds.

Alaska Performance Index (API) cuts cores for each content performance strand are presented in the table below. A general description of the generation of the API scores can be found in the 2000 Technical Report for Benchmark Assessments and the High School Qualifying Exam.

### **API Cut Scores for Each Content Performance Strand for HSGQE**

Content Area/Strand		OPI Cut Score	
Code	Title	Form A	Form B
<b>Reading</b>			
R4.01	Use context clues	0.63	0.60
R4.02	Analyze and evaluate themes	0.70	0.69
R4.04	Summarize information	0.63	0.69
R4.05	Critique arguments	0.46	0.57
R4.06	Apply multi-step directions	0.67	0.69
R4.07	Analyze literary conventions	0.61	0.46
R4.08	Analyze narrative elements	0.69	0.40
R4.09	Make and support assertions	0.35	0.37
<b>Mathematics</b>			
B/C/D	Prob. Solve/Comm/Reasoning	0.56	0.60
M.A.1	Numeration	0.74	0.63
M.A.2	Measurement	0.68	0.66
M.A.3	Estimation & Computation	0.62	0.56
M.A.4	Functions & Relationships	0.62	0.72
M.A.5	Geometry	0.71	0.74
M.A.6	Statistics/Probability	0.72	0.64
<b>Writing</b>			
W4.1/4.2	Write compositions	0.66	0.63
W4.3	Use conventional English	0.71	0.75
W4.4	Revise writing for word choice	0.80	0.84

### **3. Descriptions of Student Performance at Achievement Levels**

Conference participants following determination of the cut points drafted achievement level descriptors. Unabbreviated descriptions are presented below. Unabbreviated descriptions provide more detail on the content associated with each achievement level and are published in teacher's guides and other appropriate publications. Brief descriptions will be presented in the Final Technical Report. They appear on score reports and may be used in other appropriate publications, such as brochures, describing the achievement levels.

## Reading

### Passing

The student uses context clues to learn new words; analyzes and compares themes; interprets details that support the theme; summarizes events and the author's position; identifies main and secondary ideas, relevant details, summary sentences, and author's point of view; finds evidence to support arguments; differentiates between emotional and fact-based arguments; makes connections between evidence and ideas; interprets workplace documents; reads and follows multi-step directions to complete a task; explains the reasons for using specific methods to complete a task; recognizes literary terms; determines purpose for using a literary technique; recognizes that an author can violate writing conventions to convey a message; identifies and interprets figurative language; analyzes characters, author's tone, and perspective; interprets message conveyed by a character's actions; writes assertions and identifies evidence; and compares information from multiple sources.

## Writing

### Passing

The student writes narrative, informative, persuasive, and descriptive compositions that include relevant details; uses logical organization including an introduction, transitions, and a conclusion; uses appropriate vocabulary, and varied and accurate sentence structures, and mostly correct spelling, punctuation, and grammar. In others' writing, the student corrects sentence fragments, run-ons, capitalization, and spelling; determines topic and concluding sentences and supporting details; uses commas and semicolons correctly in different sentence structures; uses commas correctly with phrases and series; uses capitalization and punctuation correctly in letters, addresses, and quotations; combines sentences succinctly; organizes a paragraph by placing sentences in logical order, using effective transitions, and removing irrelevant sentences; and identifies correct verb tense and form, subject-verb agreement, and usage and form of adjectives and adverbs.

## Mathematics

### Passing

The student can compare and order real numbers (whole numbers, negative numbers, fractions, decimals, and percents), convert between equivalent forms (e.g., decimal to scientific notation), and perform computations; measure directly using a ruler and protractor and find measurements indirectly using formulas, estimation, and properties of geometry; use algebra to simplify expressions and solve equations with one or more unknowns; analyze, interpret, represent, and apply algebraic relationships in equations, graphs, tables, or patterns; apply properties of geometric figures (shapes, lines, angles, and three-dimensional figures) and geometric transformations (rotations, reflections, and translations); analyze, present, and draw conclusions from data in various forms; determine probabilities of simple and compound events; use mathematical terms and symbols to explain solutions; and use a variety of problem solving strategies (guess and check, diagrams, patterns, and working backward).

## 4. Standard Errors

The table below reports the standard errors (of the mean) for each of the Bookmark cut scores established by the three panels. Each panel was composed of three groups. In deriving these

estimates, each of the small Bookmark groups is assumed to contribute an independent estimate of a "true" cut score. By "true" we mean that hypothetical cut score which would be established by a large number of groups with about the same credentials as those who actually met and set cut scores in June 2000. Standard errors, then, are useful in establishing the precision of an averaged score. The standard errors are cluster-sampling estimates (Cochran, 1963: p. 210), based on the Round 2 bookmark placements. Cluster-sampled standard errors are appropriate when data are collected from groups and when independence may be assumed between groups, not within groups (e.g., when observations from within the same group are expected to be more similar than observations from different groups). This statistical technique, then, adjusts the magnitude of an estimate for the lack of independence among observations. In the Bookmark procedure, the source of the lack of independence in the judgments is presumed to result from the group discussion process. The Round 2, rather than the Round 3, Bookmark placements are used because the small groups in the Bookmark procedure often decide to present a single, agreed-upon cut point as a collective judgment at the end (Round 3) of the process. Therefore, the Round 2 Bookmarks represent a compromise between the independent and individual judgments of Round 1 and the relatively collective group judgment of Round 3. The formulas for computing the standard error for a Round 2 Bookmark placement ( $SE_{R2}$ ) are:

$$SE_{R2} = \sqrt{\frac{S^2}{N} [1 + (n-1)r]},$$

where  $r$  is the intraclass correlation,  $S^2$  is the sample variance of  $Y$ .  $Y_{nk}$  represents a judgment from the  $n^{\text{th}}$  participant in group  $k$ :

$$r = \frac{Var(\bar{Y}_k)}{Var(\bar{Y}_k) + Var(Y_{nk} - \bar{Y}_k)} \quad \text{and} \quad S^2 = \frac{1}{N-1} \sum_{n,k} (Y_{nk} - \bar{Y})^2.$$

Note that the final cut scores are based on the Round 3 judgments. However, standard errors based on the Round 2 judgments provided information relevant to how much agreement existed between the groups. Again, standard errors can be used to provide an estimate of where a Bookmark would be placed if, hypothetically, other groups of participants (with similar credentials) had been selected. Doubling each standard error, then adding and subtracting that sum from each corresponding Bookmark cut score in the following table, will provide approximately a 95 percent confidence interval for the "true" Bookmark cut score. For example, the HSGQE Reading cut point at the "Passing" achievement level would be expected to be placed between scale scores 283 and 327 by 95 percent of all panels hypothetically selected. Conversely, the standard error and its corresponding confidence interval can be used to indicate where a cut score might be considered unreasonable (i.e., outside of the confidence interval). The method used by CTB for computing standard errors is similar to that used by the NAEP in evaluating its cut scores.

**Alaska HSGQE  
Standard Errors for Achievement Level Cut Scores**

<b>Content Area</b>	<b>Achievement Level</b>	<b>Scale Score Cut (Median)</b>	<b>Standard Error</b>
Reading	Passing	305	22.29
Writing	Passing	356	27.77
Mathematics	Passing	383	15.50

Appendix C includes a graphical presentation of voting behavior for each cut score, and then for all cut scores together. The graphs also show the convergence of group judgments across the three rounds. The vertical bars to the right of each graph represent two standard errors, or approximately a 95 percent confidence interval around the mean cut score.

## 5. Evaluation Survey

At the end of the workshop, all participants were asked to complete an evaluation survey. The purpose of this survey is to assess the design of the standard setting process and to find out if participants valued the experience and feel confident about the outcome. The survey is included as Appendix D. In general, participants were quite pleased with the standard setting and the outcomes. Approximately 96 percent were “satisfied” or “very satisfied” with the overall conference and 88 percent said they would defend their cut points. The detailed results of the survey are listed in Appendix E.

## Appendix A: Standard Setting Agendas

## Alaska 2000 Standard Setting Master Agenda HSGQE

### Monday, June 12<sup>th</sup> 2000 -- Day 1 of Standard Setting

- **8:00 - 8:30 AM: *Participant registration.*** Participants receive a participant agenda, training materials, non-disclosure agreements, and nametags at the registration desk.
  
- **8:30 - 10:15 AM (general assembly room): *Opening Session***
  - Welcome
  - ADEED address
  - Standard Setting orientation
  - Logistics
  
- **10:15 - 10:30 AM: *Break***
  
- **10:30 - 11:30 AM (break-out rooms): *Sign out Materials and take operational test.***
  - Materials in break out rooms: operational test forms, scoring guides, exemplar papers, ordered item booklets, overheads, notepads, pens, highlighters, index cards, flip-chart, flip-chart markers, masking tape, extra post its, paper clips, and binder clips.
  
  - **Large Group Leader/Small Group Leader Responsibilities:**
    - Have participants write their name and small group number on all secure materials (anything color-coded).
    - Help participants find operational tests in their packets. Have participants take the operational test. They will find the multiple choice answer key on the item map and can confirm their own answers. This is intended to help the participants understand what the test measures, i.e., what knowledge, skills and abilities (KSA's) are entailed in each item and see the items from the students' perspective.
    - *Note:* Participants tend to want to spend time critiquing the items, however, extended discussion of this type will not be useful and should be discouraged. Announce that participants may write comments about items on the index cards provided on each table. *Please have participants note the /content area and item number on the index card.*
  
- **11:30 AM - 12:00 PM (Break out rooms) Study Constructed Response items & rubrics.**

The Group Leader conducts an examination of each CR item and scoring rubric (using the overhead projector—transparencies of the rubrics will be provided). Examine each stimulus and associated rubric, discuss the knowledge, skills and competencies required for students to obtain each score point, and note the additional skills required to move from each score point to the next higher one.

- **Large Group Leader Responsibilities:** Lead discussion in a focused manner. Note the pace to stay on schedule. The group should stay together on this activity. If you see the groups breaking up into cliques, bring the group together.
  - **Small Group Leader Responsibilities:** Keep your group focused on the task at hand.
- 
- **12:00 - 1:00 PM *Lunch Break***
- 
- **1:00 - 2:45 PM (break-out rooms) *Study ordered item booklets.*** Participants work in small groups reviewing the ordered booklets, item by item, from the easiest to the hardest, discussing what each item measures and what makes an item harder than the items preceding it. Participants note these observations on the item map. Participants must be encouraged to spend considerable effort in this task because the rest of the Standard Setting is based on their understanding of the ordered item booklet.
- 
- **Large Group Leader Responsibilities:** Facilitate this activity. Monitor small groups—If groups are not proceeding efficiently, intervene diplomatically. Each member of the group should be examining the same item. If you see the group breaking up into cliques, help the Small Group Leader bring them back together. Keep track of time and help them stay on schedule. If you see problems developing, notify Valerie Link or Karla Egan.
  - **Small Group Leader Responsibilities:** Facilitate orderly, focused, and efficient discussion of the ordered item booklet, but do not be controlling. Insure that all group members participate. The group should stay on task should stay together when discussing the items, and progress through the book efficiently. Note that the leader is a member of the group.
- 
- **2:45 - 3:00 PM: *Break***
- 
- **3:00 - 4:15 PM (break-out rooms) *Continue to Study ordered item booklet***

Participants work in small groups reviewing the ordered booklets, item by item, from the easiest to the hardest, discussing what each item measures and what makes an item harder than the items preceding it. Participants note these observations on the item map. Participants must be encouraged to spend considerable effort in this task because the rest of the Standard Setting is based on their understanding of the ordered item booklet.
- 
- **Large Group Leader Responsibilities:**
    - Monitor small groups—If groups are not proceeding efficiently, intervene diplomatically. Each member of the group should be examining the same item. If you see the group breaking up into cliques, help the Small Group Leader bring them back together. Keep track of time and help them stay on schedule. If you see problems developing, notify Valerie Link or Karla Egan.
  - **Small Group Leader Responsibilities:**
    - Facilitate orderly, focused, and efficient discussion of the ordered item booklet, but do not be controlling. Insure that all group members participate. The group should stay on task should stay together when discussing the items, and progress through the book efficiently. Note that the leader is a member of the group.

- **4:15 - 5:00 PM (break-out rooms): *Orientation to bookmark placement and Vote 1***
  - When all groups have completed studying the ordered item booklets, the Group Leader should call in Valerie Link or Karla Egan to introduce the fundamental task—Bookmark placement.
  - Each participant places his or her Passing bookmark independently.
  - **Passing bookmark placement directions:** Place the bookmark at the first point in the ordered item booklet where you feel that a student who is able to respond successfully to the items up to that point (with at least a 2/3 likelihood) has demonstrated sufficient skills to infer that the student’s achievement level is Passing. Items preceding the bookmark are items reflecting content that all Passing students should master. For multiple choice items this means passing students should know the correct response. For constructed response items (score points) this means Passing students should achieve at least that score point.
  - Transfer your bookmark placement to the Round 1 row of your rating form.
- **Small Group Leader Responsibilities:**
  - Collect your group’s participants’ rating forms as they complete them. Turn them in for recording. Check to see that they have made the bookmark ratings. When rating forms are all complete, collect participant rating forms and turn them in for recording.
  - Collect and verify that all Standard Setting material has been turned in to the materials monitor by each participant. Use the checklist provided.

- **5:00 PM: Large Group Leader leads the collection of secure materials**

It is very important that all secure materials be organized prior to participant departure each evening. Often these rooms are not secure and the materials need to be collected and stored in the Operations Room. In order for each participant to receive their own complete set of materials the next day, and to account for all secure materials, please lead the materials collection process in a highly structured and organized manner. When you are collecting materials:

1. Get the attention of all participants and Small Group Leaders. *Do not proceed until all eyes are on you!*
2. Tell the participants that it is very important that they follow your instructions exactly, placing their materials in the order you specify *in one stack per participant*.
3. Have participants place each of the materials on the table in front of them, exactly as you ask for them, one at a time.
4. You will be provided with an overhead that lists each secure material (for example, ordered item booklet, item map, and scoring guide).
5. Call out the first secure material, for example “ordered item booklet.”
6. Ask each Small Group Leader to watch and let you know when each of their participants has placed that material on the table in front of them.
7. Proceed in this manner through the list of secure materials, one at a time, until each is accounted for, with each piece placed on top of the previous piece, *in one stack for each participant*.
8. Any additional materials the participants would like to leave overnight may be placed on top of the stack.

9. When each Small Group Leader has confirmed that all secure materials are accounted for, you can dismiss the participants.
- **5:15 – 5:30 PM: *Day 1 debriefing with CTB, ADEED, and Large Group Leader***
    - Meet to discuss how the day went for each group and any problems that occurred.
    - Consider any comments from the participants.

## Tuesday, June 13, 2000—Day 2 Agenda

- **8:30 - 9:00 AM (break-out rooms): *Day 2 orientation***  
Review process of discussing differences using Example 1 as an illustration.
- **9:00 - 10:15 AM Round 2 (break-out rooms): *Discussion of Vote 1 results.***  
Review Vote 1 bookmark placements in small groups.
  - **Large Group Leader Responsibilities:** Group leader passes out small group results (provided by CTB Research) to each small group and monitors the work of small groups.
  - **Small Group Leader Responsibilities:**
    - Facilitate discussion of the group's Passing bookmark results. Use Example 1 below as a guide.
      - Have each participant place a Passing bookmark (post-it) in his/her ordered item booklet that shows where each of the other participants in the small group made their Passing bookmark placements. According to the sample Vote 1 results below, for the Passing bookmark, each participant would place a post-it on pages 72, 81, 77, and 75.
      - Of these bookmarked items, consider only the items in the bookmark range. Using the sample results below, these would be items 72 to 81.
      - Facilitate a group discussion of these items in terms of what they are measuring, and whether students whose achievement level is Passing should be expected to respond correctly to these items. Begin with the items between the first two post-its, and then discuss the items between the second and third post-its, etc.

**Example 1**  
**Hypothetical Example of Vote 1 Results**

	Passing Bookmark on page
Participant 1	72
Participant 2	81
Participant 3	72
Participant 4	77
Participant 5	75

- **10:15-10:30 AM: *Break***
- **10:30 – 11:15 AM Round 2 (break-out rooms): *Discussion of Vote 1 results continued.***

**11:15-11:30 AM: Vote 2**

- **Large Group Leader Responsibilities:**
  - Have each participant make a Vote 2 Passing bookmark based on each participant's new perspective and transfer the location to the Vote 2 column of the rating form. This should be done independently for each participant. Participants do not have to agree, but may choose to do so.
  - When rating forms are all complete, collect participant rating forms and turn them in for recording.
  
- **11:30 AM – 12:30 PM: Lunch Break**
  
- **12:30 – 2:15 PM Round 3 (break-out rooms): Discussion of Vote 2 results**  
Review Vote 2 bookmark placements across tables.
  - **Large Group Leader Responsibilities:** Group leader passes out small group results (provided by CTB Research) to each small group.
  - The Large Group Leader will present a summary of each small group's bookmark placements.
  - The Large Group Leader facilitates a discussion of the bookmarks. Use Example 2 below as a guide.
    - Have each participant place a Passing bookmark (post-it) in his/her ordered item booklet that shows where each of the other table groups made their Passing bookmark placements. According to the sample Vote 2 results below, for the Passing bookmark, each participant would place a post-it on pages 75, 77, and 83.
    - Consider the items within the bookmark range. Using the sample results below, these would be items 75 to 83.
    - Facilitate an across table discussion of these items in terms of what they are measuring, and whether students whose achievement level is Passing should be expected to respond correctly to these items. Begin with the items between the first two post-its, and then discuss the items between the second and third post-its, etc.

Example 2  
**Hypothetical Example of Vote 2 Results**

**Small group 1:**

	Passing Bookmark on page
Participant 1	72
Participant 2	81
Participant 3	71
Participant 4	75
Participant 5	79
<b>Group Median</b>	<b>75</b>

**Small group 2:**

	Passing Bookmark on page
Participant 1	75
Participant 2	79
Participant 3	78
Participant 4	73
Participant 5	77
<b>Group Median</b>	<b>77</b>

**Small group 3:**

	Passing Bookmark on page
Participant 1	76
Participant 2	99
Participant 3	83
Participant 4	85
Participant 5	66
<b>Group Median</b>	<b>83</b>

- **2:15 - 2:30 PM: *Vote 3***
  - **Large Group Leader Responsibilities:**
    - Have each participant make a Vote 3 Passing bookmark placement and transfer the bookmark location to the Vote 3 column of the rating form
    - When rating forms are all complete, collect participant rating forms and turn them in for recording.
- **2:30 - 3:00 PM: *Break***
- **3:00 - 5:00 PM: *Discussion of Vote 3 Results***

Review Vote 3 bookmark placements across tables.

  - **Large Group Leader Responsibilities:** Group leader passes out small group results (provided by CTB Research) to each small group.
  - The Large Group Leader will present a summary of each small group's bookmark placements.
  - The Large Group Leader facilitates a discussion of the final recommended bookmarks. Use Example 3 below as a guide.
    - Have each participant place a Passing bookmark (post-it) in his/her ordered item booklet that shows where each of the other table groups made their Passing bookmark placements. According to the sample Vote 3 results below, for the Passing bookmark, each table would place a post-it on pages 75, 77, and 83.
    - Consider the items within the bookmark range. Using the sample results below, these would be items 75 to 83.
    - Facilitate an across table discussion of these items in terms of what they are measuring, and whether students whose achievement level is Passing should be expected to respond correctly to these items. Begin with the items between the

first two post-its, and then discuss the items between the second and third post-its, etc.

### Example 3 Hypothetical Example of Vote 3 Results

#### Small Group 1:

	Passing Bookmark on page
Participant 1	72
Participant 2	81
Participant 3	71
Participant 4	75
Participant 5	79
<b>Group Median</b>	<b>75</b>

#### Small Group 2:

	Passing Bookmark on page
Participant 1	75
Participant 2	79
Participant 3	78
Participant 4	73
Participant 5	77
<b>Group Median</b>	<b>77</b>

#### Small Group 3:

	Passing Bookmark on page
Participant 1	76
Participant 2	99
Participant 3	83
Participant 4	85
Participant 5	66
<b>Group Median</b>	<b>83</b>

- **5:00 PM: Large Group Leader leads the collection of secure materials**

It is very important that all secure materials be organized prior to participant departure each evening. Often these rooms are not secure and the materials need to be collected and stored in the Operations Room. In order for each participant to receive their own complete set of materials the next day, and to account for all secure materials, please lead the materials collection process in a highly structured and organized manner. When you are collecting materials:

1. Get the attention of all participants and Small Group Leaders. *Do not proceed until all eyes are on you!*

2. Tell the participants that it is very important that they follow your instructions exactly, placing their materials in the order you specify *in one stack per participant*.
  3. Have participants place each of the materials on the table in front of them, exactly as you ask for them, one at a time.
  4. You will be provided with an overhead that lists each secure material (for example, ordered item booklet, item map, and scoring guide).
  5. Call out the first secure material, for example “ordered item booklet.”
  6. Ask each Small Group Leader to watch and let you know when each of their participants has placed that material on the table in front of them.
  7. Proceed in this manner through the list of secure materials, one at a time, until each is accounted for, with each piece placed on top of the previous piece, *in one stack for each participant*.
  8. Any additional materials the participants would like to leave overnight may be placed on top of the stack.
  9. When each Small Group Leader has confirmed that all secure materials are accounted for, you can dismiss the participants.
- **5:15 – 5:30 PM: Day 2 debriefing with CTB, ADEED, and Large Group Leader.**
    - Meet to discuss how the day went for each group, any problems that occurred, etc.

## Wednesday, June 14, 2000—Day 3 Agenda

- **8:30 – 9:00 AM (break-out rooms): *Day 3 orientation***  
Review process of writing descriptors.
- **9:00 - 10:15 AM: Write Descriptors**
  - Large Group Leader will guide the descriptor writing process by encouraging the participants to:
    - Provide clear information to guide curriculum and instruction.
    - Describe specific learner outcomes.
      - Describe the measurable content domain of the test.
      - Describe the skills and knowledge needed to master the score point. (What must a student do to demonstrate competence?)
      - Write the descriptor so that the higher category should imply mastery of more complex knowledge or skills, such that the categories could be ordered without the labels.
- **10:15 –10:30 AM: *Break***
- **10:30 AM - 11:45 AM: *Continue to Write and Finalize Descriptors***
- **11:45 AM – 12:00 PM:**
  - Large Group Leader Responsibilities
    - Distribute evaluation forms—participants complete evaluation questionnaires.
    - Ensure that all participants complete evaluation questionnaires.
    - Invite participants to complete and/or turn in item comment cards.
    - Collect evaluation forms.
- **12:00 PM: Large Group Leader leads the collection of secure materials**  
It is very important that all secure materials be organized prior to participant departure each day. Often these rooms are not secure and the materials need to be collected and stored in the Operations Room. In order for each participant to receive their own complete set of materials the next day, and to account for all secure materials, please lead the materials collection process in a highly structured and organized manner. When you are collecting materials:
  1. Get the attention of all participants and Small Group Leaders. *Do not proceed until all eyes are on you!*
  2. Tell the participants that it is very important that they follow your instructions exactly, placing their materials in the order you specify *in one stack per participant*.
  3. Have participants place each of the materials on the table in front of them, exactly as you ask for them, one at a time.
  4. You will be provided with an overhead that lists each secure material (for example, ordered item booklet, item map, and scoring guide).
  5. Call out the first secure material, for example “ordered item booklet.”

6. Ask each Small Group Leader to watch and let you know when each of their participants has placed that material on the table in front of them.
7. Proceed in this manner through the list of secure materials, one at a time, until each is accounted for, with each piece placed on top of the previous piece, *in one stack for each participant*.
8. Any additional materials the participants would like to leave overnight may be placed on top of the stack.
9. When each Small Group Leader has confirmed that all secure materials are accounted for, you can dismiss the participants.

- **12:15 PM: *Final Debriefing with ADEED, CTB, and Large Group Leaders***

Meet to discuss how the day went for each group

## Appendix B: Final Round Summary Statistics for Each Small Group's Judged Cut Point Placements

**Reading**  
**Group 1, Round 1 Results**

Participant	<i>Passing</i> Bookmark on Page
1	66
2	79
3	98
4	79
5	70
6	80
7	69
Median	79.0

**Reading**  
**Group 2, Round 1 Results**

Participant	<i>Passing</i> Bookmark on Page
1	43
2	107
3	54
4	63
5	61
6	97
7	94
Median	63.0

**Reading**  
**Group 3, Round 1 Results**

Participant	<i>Passing</i> Bookmark on Page
1	51
2	77
3	52
4	62
5	52
6	56
7	61
Median	56.0

**Reading**  
**Group 1, Round 2 Results**

Participant	<i>Passing</i> Bookmark on Page
1	69
2	70
3	80
4	69
5	75
6	75
7	70
Median	70.0

**Reading**  
**Group 2, Round 2 Results**

Participant	<i>Passing</i> Bookmark on Page
1	80
2	97
3	65
4	85
5	70
6	91
7	94
Median	85.0

**Reading**  
**Group 3, Round 2 Results**

Participant	<i>Passing</i> Bookmark on Page
1	62
2	77
3	53
4	61
5	52
6	56
7	61
Median	61.0

**Reading**  
**Group 1, Round 3 Results**

Participant	<i>Passing</i> Bookmark on Page
1	69
2	70
3	80
4	65
5	65
6	70
7	70
Median	70.0

**Reading**  
**Group 2, Round 3 Results**

Participant	<i>Passing</i> Bookmark on Page
1	60
2	87
3	68
4	78
5	70
6	85
7	85
Median	78.0

**Reading**  
**Group 3, Round 3 Results**

Participant	<i>Passing</i> Bookmark on Page
1	65
2	77
3	61
4	69
5	64
6	61
7	70
Median	65.0

**Reading**  
**Round 3 Large-Group Summary**

	<i>Passing</i> Bookmark on Page
Mean	70.9
Median	70.0
Minimum	60.0
Maximum	87.0
SD	8.1

**Writing**  
**Group 1, Round 1 Results**

Participant	<i>Passing</i> Bookmark on Page
1	92
2	85
3	104
4	72
5	91
6	89
7	95
Median	91.0

**Writing**  
**Group 2, Round 1 Results**

Participant	<i>Passing</i> Bookmark on Page
1	105
2	89
3	80
4	89
5	91
6	49
Median	89.0

**Writing**  
**Group 3, Round 1 Results**

Participant	<i>Passing</i> Bookmark on Page
1	88
2	97
3	95
4	100
5	55
6	88
7	101
Median	95.0

**Writing**  
**Group 1, Round 2 Results**

Participant	<i>Passing</i> Bookmark on Page
1	105
2	89
3	95
4	103
5	94
6	93
7	105
Median	95.0

**Writing**  
**Group 2, Round 2 Results**

Participant	<i>Passing</i> Bookmark on Page
1	105
2	94
3	99
4	92
5	91
6	80
Median	93.0

**Writing**  
**Group 3, Round 2 Results**

Participant	<i>Passing</i> Bookmark on Page
1	89
2	95
3	95
4	98
5	76
6	90
7	97
Median	95.0

**Writing**  
**Group 1, Round 3 Results**

Participant	<i>Passing</i> Bookmark on Page
1	105
2	89
3	95
4	110
5	92
6	95
7	100
Median	95.0

**Writing**  
**Group 2, Round 3 Results**

Participant	<i>Passing</i> Bookmark on Page
1	105
2	95
3	95
4	95
5	91
6	80
Median	95.0

**Writing**  
**Group 3, Round 3 Results**

Participant	<i>Passing</i> Bookmark on Page
1	89
2	97
3	96
4	102
5	90
6	90
7	100
Median	96.0

**Writing**  
**Round 3 Large-Group Summary**

	<i>Passing</i> Bookmark on Page
Mean	95.6
Median	95.0
Minimum	80.0
Maximum	110.0
SD	6.9

**Mathematics**  
**Group 1, Round 1 Results**

Participant	<i>Passing</i> Bookmark on Page
1	93
2	77
3	75
4	82
5	57
Median	77.0

**Mathematics**  
**Group 2, Round 1 Results**

Participant	<i>Passing</i> Bookmark on Page
1	60
2	83
3	71
4	109
5	94
6	76
7	65
Median	76.0

**Mathematics**  
**Group 3, Round 1 Results**

Participant	<i>Passing</i> Bookmark on Page
1	65
2	84
3	93
4	84
5	77
6	69
7	60
Median	77.0

**Mathematics**  
**Group 1, Round 2 Results**

Participant	<i>Passing</i> Bookmark on Page
1	87
2	91
3	75
4	87
5	65
Median	87.0

**Mathematics**  
**Group 2, Round 2 Results**

Participant	<i>Passing</i> Bookmark on Page
1	71
2	83
3	75
4	92
5	89
6	80
7	76
Median	80.0

**Mathematics**  
**Group 3, Round 2 Results**

Participant	<i>Passing</i> Bookmark on Page
1	77
2	84
3	90
4	84
5	69
6	81
7	74
Median	81.0

**Mathematics**  
**Group 1, Round 3 Results**

Participant	<i>Passing</i> Bookmark on Page
1	93
2	91
3	80
4	87
5	65
Median	87.0

**Mathematics**  
**Group 2, Round 3 Results**

Participant	<i>Passing</i> Bookmark on Page
1	71
2	80
3	80
4	88
5	90
6	80
7	80
Median	80.0

**Mathematics**  
**Group 3, Round 3 Results**

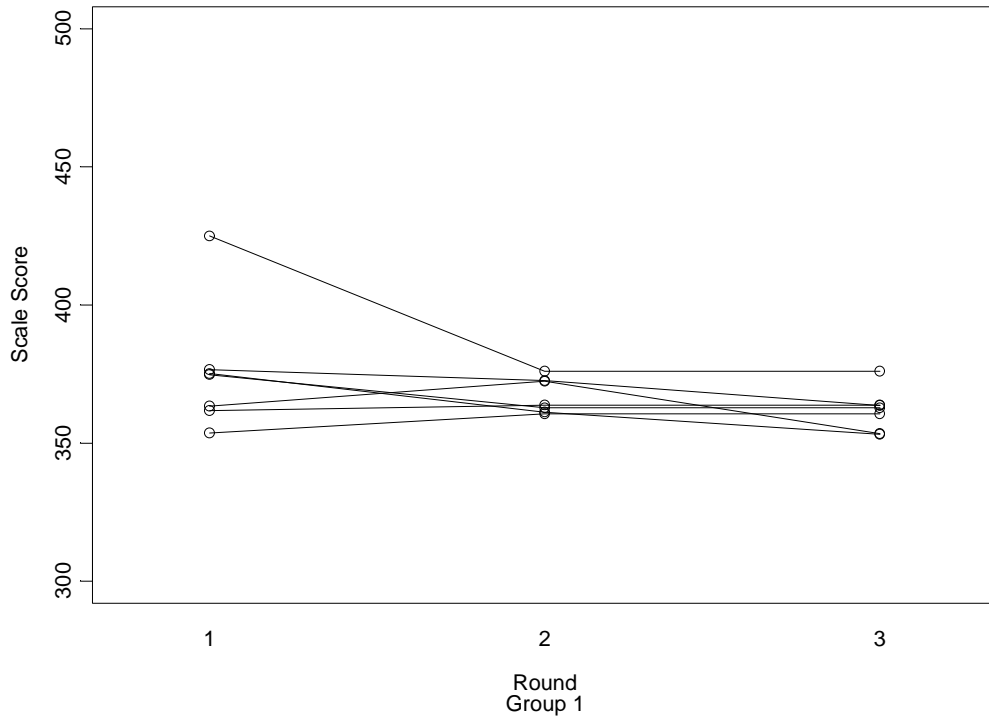
Participant	<i>Passing</i> Bookmark on Page
1	84
2	85
3	90
4	84
5	72
6	81
7	74
Median	84.0

**Mathematics**  
**Round 3 Large-Group Summary**

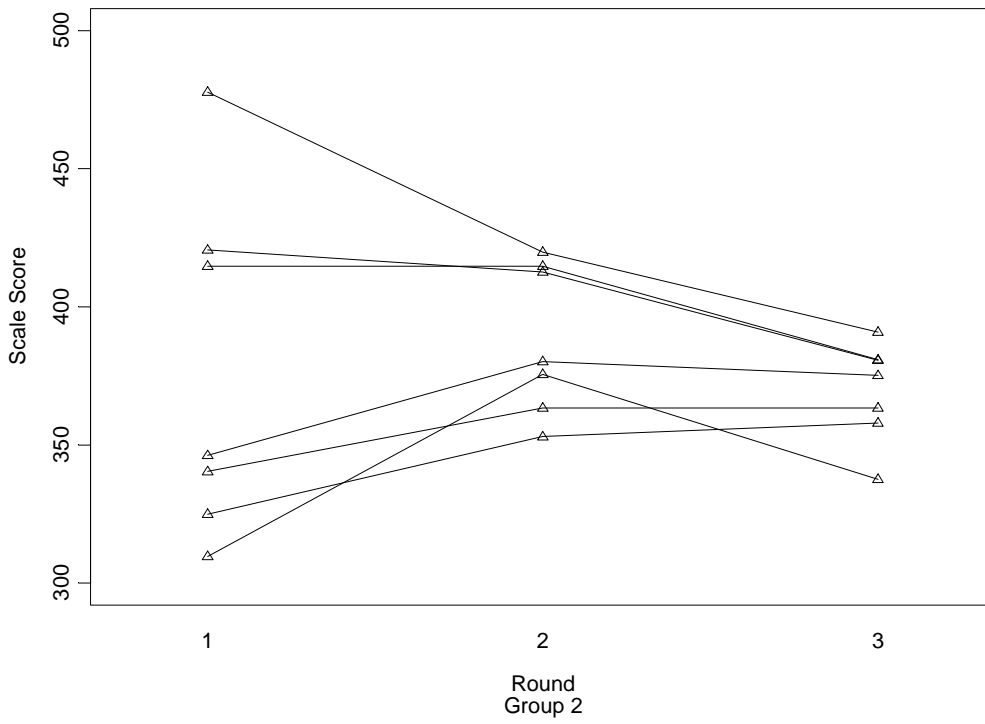
	<i>Passing</i> Bookmark on Page
Mean	81.8
Median	81.0
Minimum	65.0
Maximum	93.0
SD	7.5

## Appendix C: Graphical Presentation of Voting Behavior for Each Cut Score

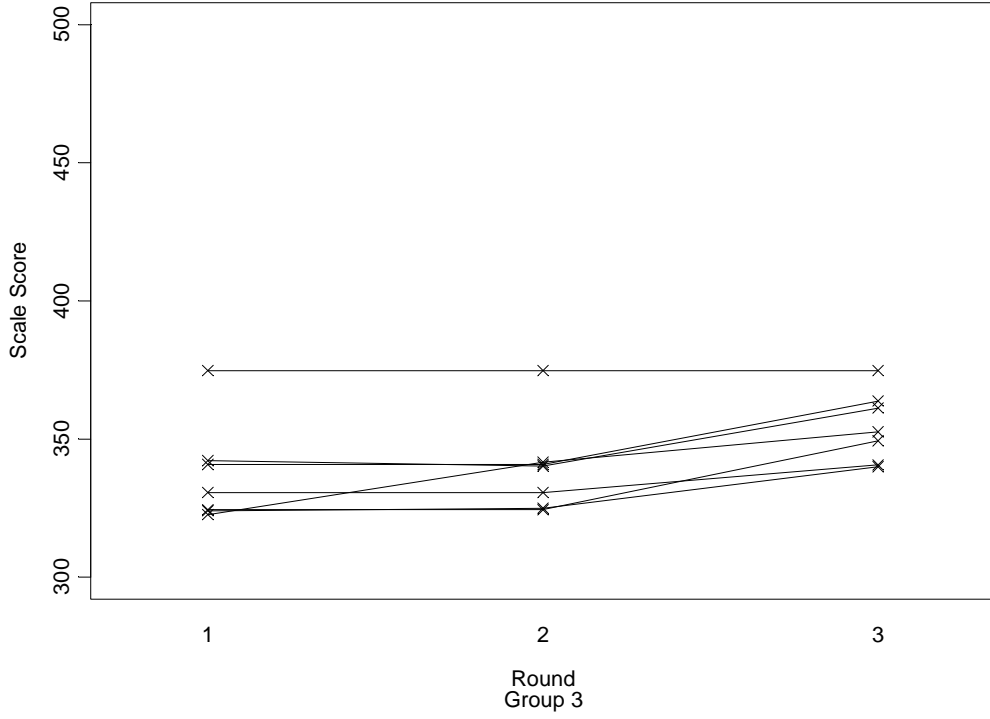
### Group 1, Alaska Reading Passing Cut Point



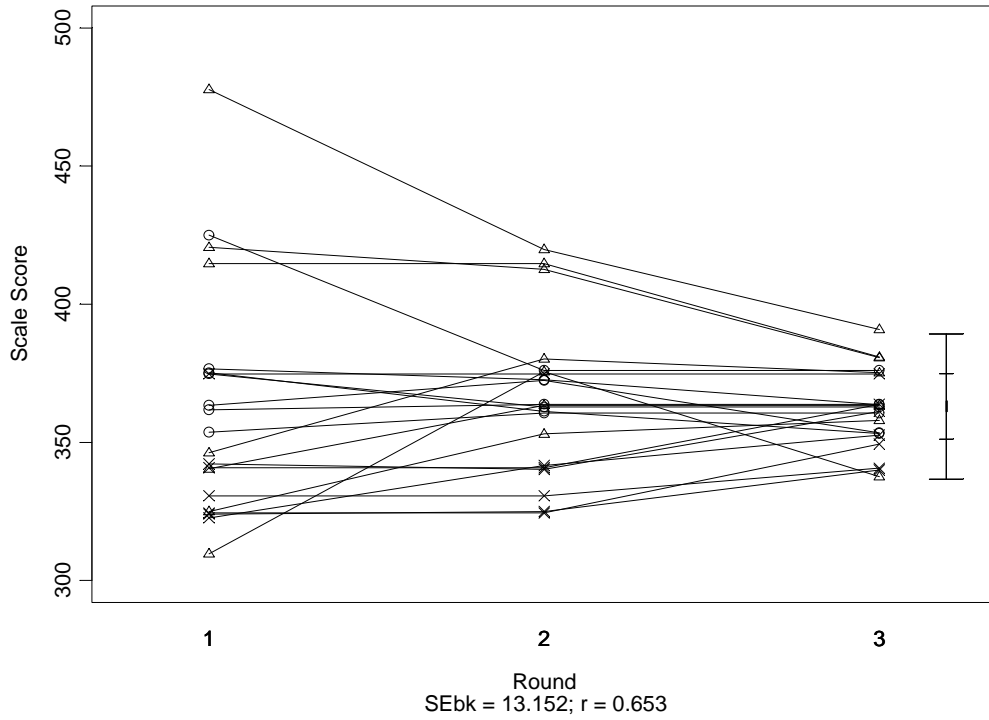
### Group 2, Alaska Reading Passing Cut Point



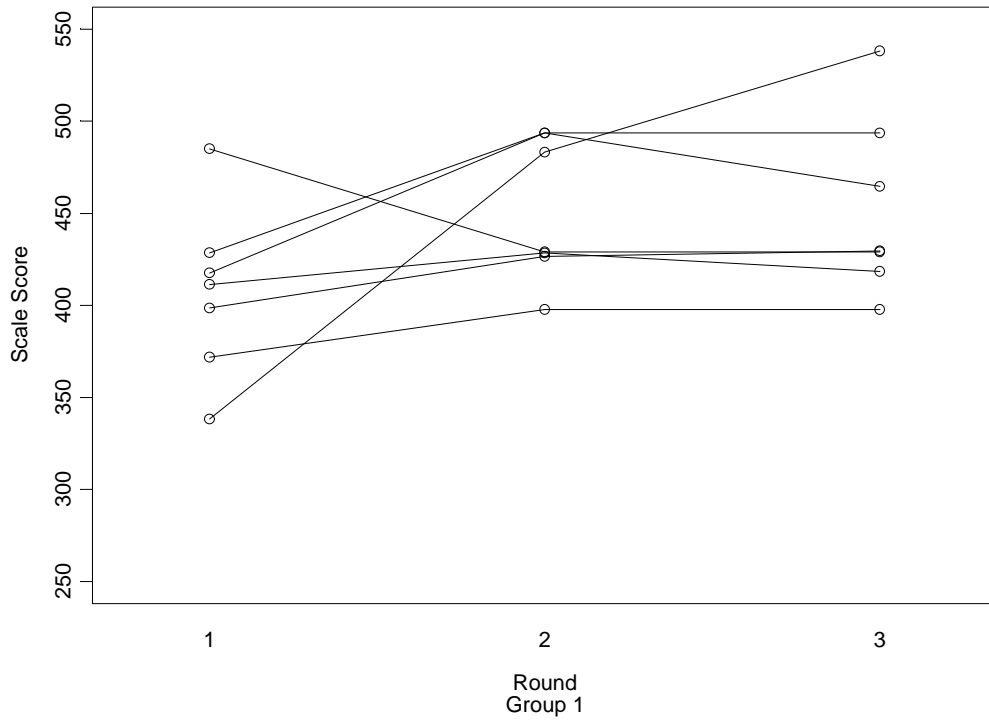
### Group 3, Alaska Reading Passing Cut Point



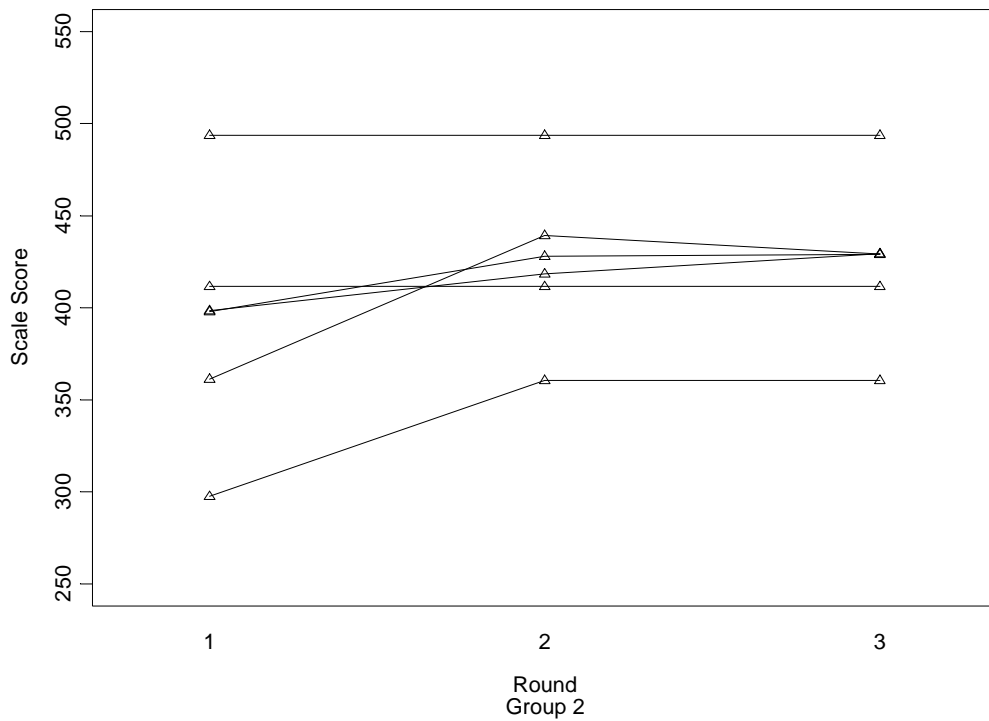
### Large-Group Summary, Alaska Reading Passing Cut Point



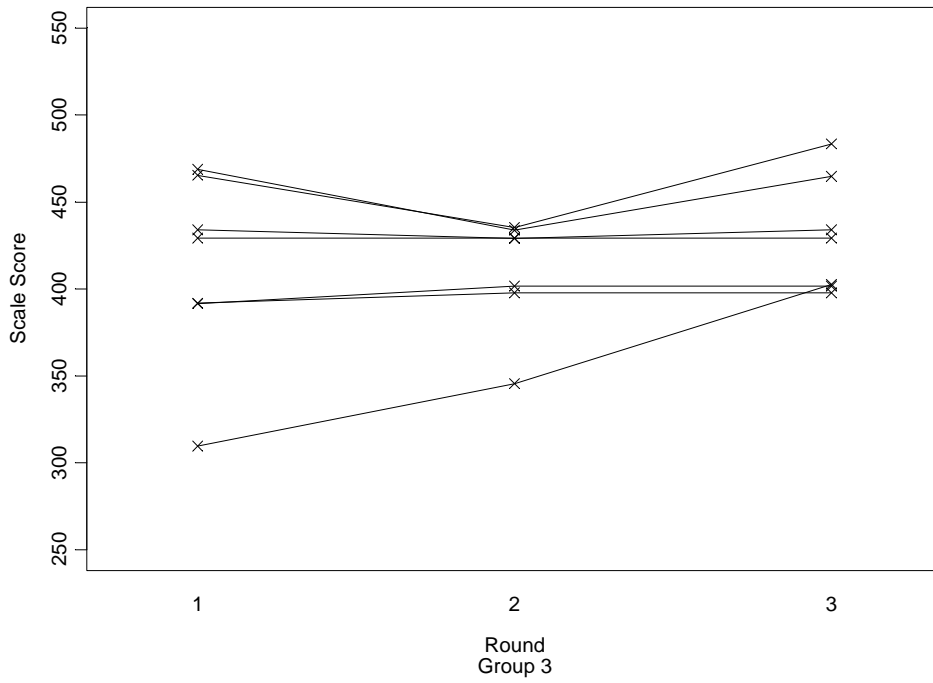
### Group 1, Alaska Writing Passing Cut Point



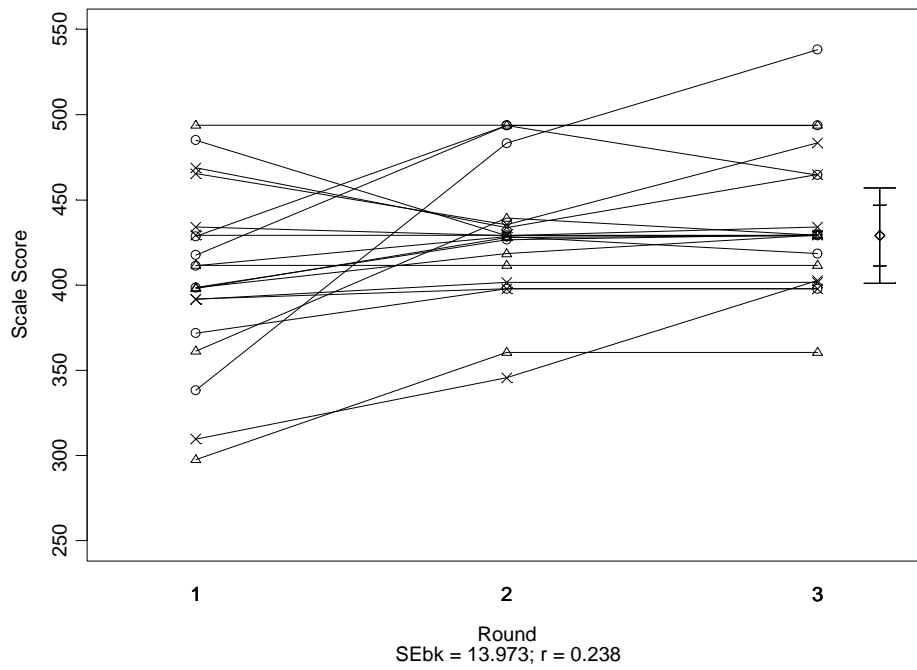
### Group 2, Alaska Writing Passing Cut Point



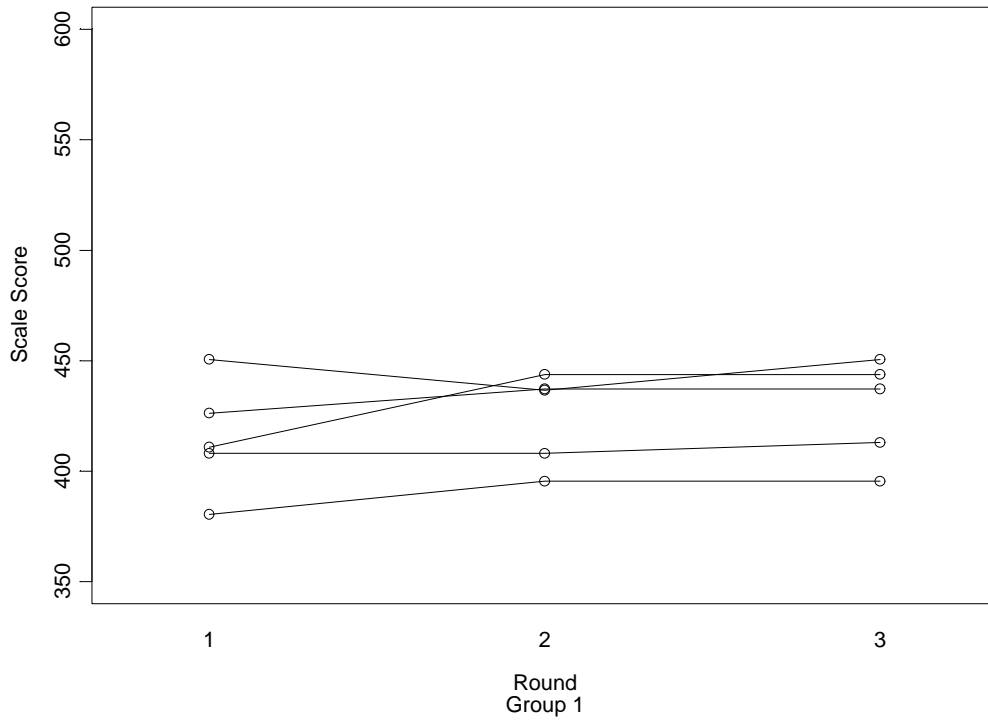
### Group 3, Alaska Writing Passing Cut Point



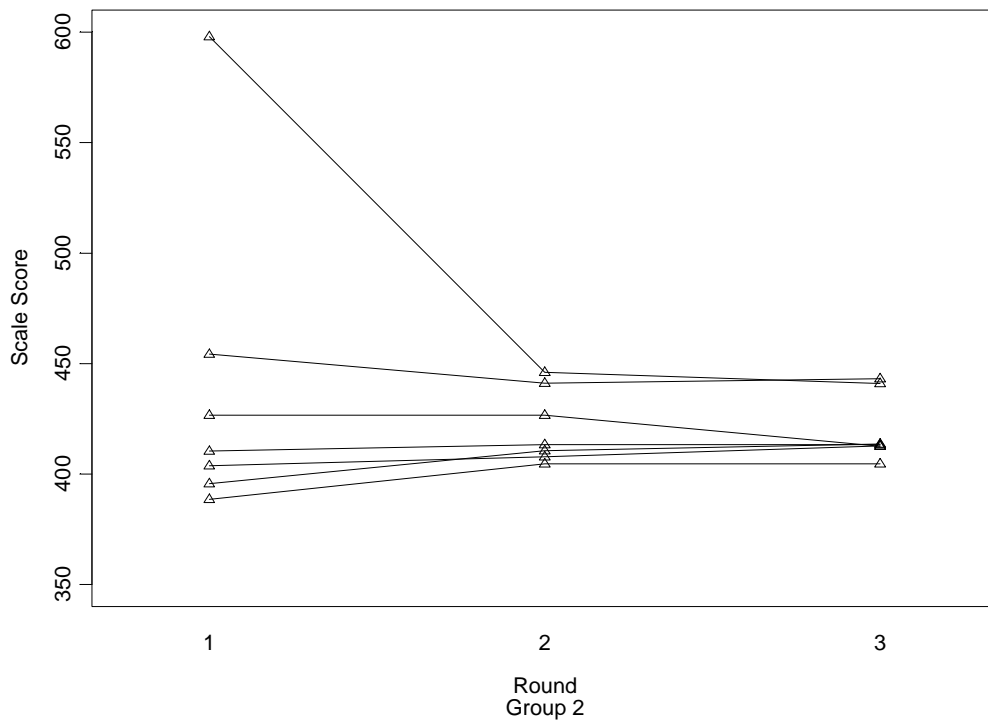
### Large-Group Summary, Alaska Writing Passing Cut Point



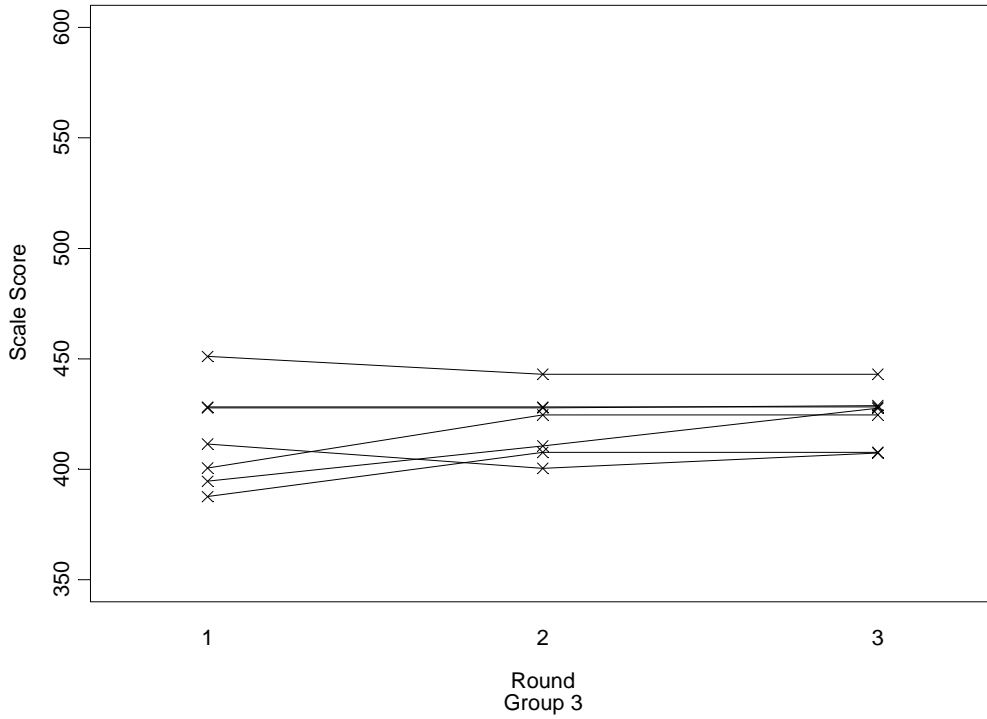
### Group 1, Alaska Mathematics Passing Cut Point



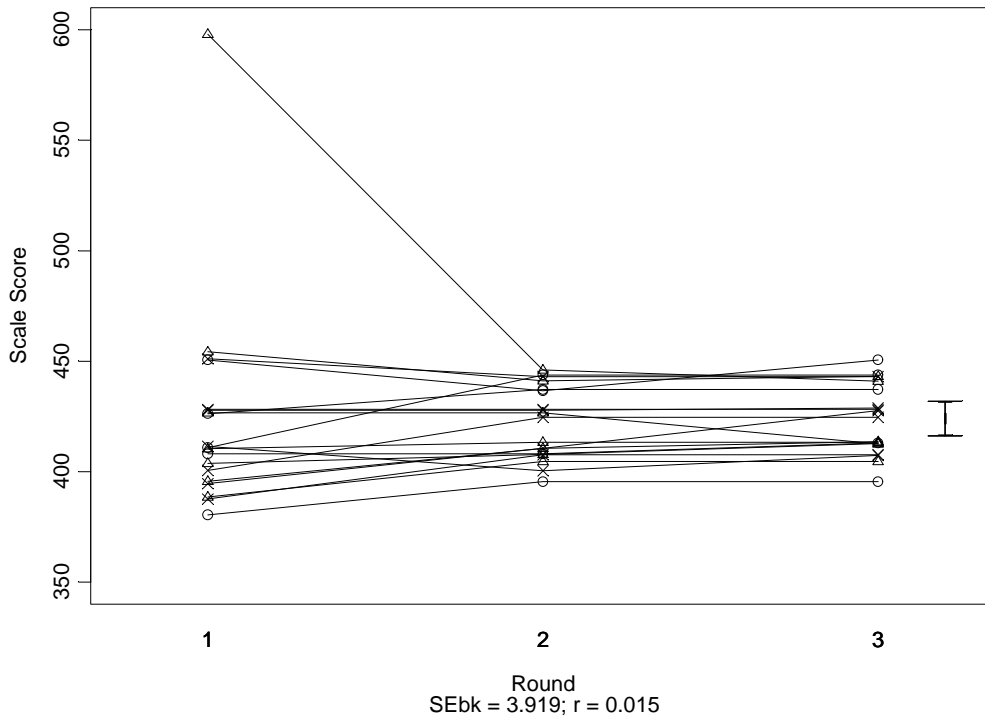
### Group 2, Alaska Mathematics Passing Cut Point



### Group 3, Alaska Mathematics Passing Cut Point



### Large-Group Summary, Alaska Mathematics Passing Cut Point



## **Appendix D: Participant Evaluation Survey**

# Alaska HSGQE Standard Setting Evaluation Survey I

Please complete the following survey. Your responses will remain anonymous.

**Content Area (circle one):**      Reading      Writing      Mathematics

## Part I: About You

1. Occupation:  Classroom Teacher     Education (non-teacher)     Non Education Professional
2. Years in your current profession \_\_\_\_\_
3.  Minority     Non-minority
4.  Female     Male

## Part II: Your Large Group's Outcome

5. Overall, how satisfied are you with your group's final bookmark placement?

**Very Dissatisfied**       **Dissatisfied**       **Neither Satisfied nor Dissatisfied**       **Satisfied**       **Very Satisfied**

6. How satisfied are you that your group's final bookmark is standards-referenced—that is based on what students should know and be able to do?

**Very Dissatisfied**       **Dissatisfied**       **Neither Satisfied nor Dissatisfied**       **Satisfied**       **Very Satisfied**

7. Overall, how satisfied are you that your opinions were considered and valued by your group?

**Very Dissatisfied**       **Dissatisfied**       **Neither Satisfied nor Dissatisfied**       **Satisfied**       **Very Satisfied**

8. Suppose you were discussing the standard set by your group with some of your peers next week. Would you defend the standard to criticisms that the cut point was set too high or too low by your large group? Please check one statement that most closely agrees with your opinion.

**No**, would not defend the cut point  
 **Yes**, would defend the cut point

## Part III: The Standard Setting Process

9. Overall, how confident are you that the Bookmark Procedure works in setting standards which are valid?

**Not at all Confident**       **Not Confident**       **Neutral**       **Confident**       **Very Confident**

10. You worked with ordered item booklets to make your judgments. Overall, how much agreement would you say you had with the item ordering, that is, did you find the ordering to agree with your perceptions of the relative difficulty of the items?

**Generally  
 Disagreed**

          
**Somewhat  
 Disagreed**

          
**Neither Agreed  
 nor Disagreed**

          
**Somewhat  
 Agreed**

          
**Generally  
 Agreed**

**Part IV: The Conference Setting, Food, etc.**

11. Please give us your overall impression of how organized the standard setting was in terms of how well we followed the agenda, and how smoothly the conference ran.

          
**Very  
 Disorganized**

          
**Disorganized**

          
**Neither Organized  
 Nor Disorganized**

          
**Organized**

          
**Very  
 Organized**

12. Please assign an overall grade, A, B, C, D or F to reflect your opinion of the following: Let your grades reflect: **A = Excellent B = Good C = Fair D = Poor F = Fail**

**Quality of Training & Assistance**

- General Bookmark Training
- Group Leaders

**Quality of Accommodations**

- Meeting Rooms
- Catered Food
- Hotel Facilities, Overall

**Value of Conference as a Professional Development Experience**

- Overall
- Analyzing ordered item booklet
- Interacting with peers in group
- Constructing better classroom tests
- Targeting instruction

**Part V: Your Turn**

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. Let us know if you would participate in future standard setting conferences of this type. Use the back if you have a lot to tell us.

## **Appendix E: Exit Survey Results**

	Participant Occupation							
	Reading		Writing		Mathematics		Total	
	N	%	N	%	N	%	N	%
Classroom Teacher	9	45.00	12	63.16	13	65.00	34	57.63
Education (Non-Teacher)	10	50.00	6	31.58	4	20.00	20	33.90
Non-Education Professional	--	--	1	5.00	1	5.00	2	3.39
Missing	1	5.00	--	--	2	10.00	3	5.08
Total	20	100.00	19	100.00	20	100.00	59	100.00

	Participant Ethnicity							
	Reading		Writing		Mathematics		Total	
	N	%	N	%	N	%	N	%
Minority	4	20.00	4	21.05	1	5.00	9	15.25
Non-Minority	11	55.00	11	57.89	15	75.00	37	62.71
Missing	5	25.00	4	21.05	4	20.00	13	22.03
Total	20	100.00	19	100.00	20	100.00	59	100.00

	Participant Gender							
	Reading		Writing		Mathematics		Total	
	N	%	N	%	N	%	N	%
Female	13	65.00	16	84.21	8	40.00	37	62.71
Male	5	25.00	1	5.26	10	50.00	16	27.12
Missing	2	10.00	2	10.53	2	10.00	6	10.17
Total	20	100.00	19	100.00	20	100.00	59	100.00

Overall, how satisfied are you with your group's Bookmark placements?		
	Total	
	N	%
Very Dissatisfied	1	1.69
Dissatisfied	4	6.78
Neutral	6	10.17
Satisfied	33	55.93
Very Satisfied	15	25.42
Missing	--	--
Total	59	100.00

How satisfied are you that your group's final Bookmarks are standards-referenced--that is, based on what students should know and be able to do?		
	Total	
	N	%
Very Dissatisfied	1	1.69
Dissatisfied	3	5.08
Neutral	6	10.17
Satisfied	32	54.24
Very Satisfied	17	28.81
Missing	--	--
Total	59	100.00

Overall, how satisfied are you that your opinions were considered and valued by your group?		
	Total	
	N	%
Very Dissatisfied	1	1.69
Dissatisfied	--	--
Neutral	2	3.39
Satisfied	23	38.98
Very Satisfied	33	55.93
Missing	--	--
Total	59	100.00

Would you defend the cut point that was set?		
	Total	
	N	%
No	5	8.47
Yes	52	88.14
Missing	2	3.39
Total	59	100.00

Overall, how confident are you that the Bookmark procedure works in setting standards which are valid?		
	Total	
	N	%
Not at All Confident	1	1.69
Not Confident	3	5.08
Neutral	15	25.42
Confident	26	44.06
Very Confident	14	23.73
Total	59	100.00

Overall, how much agreement would you say you had with the item ordering; that is, did you find the ordering to agree with your perceptions of the relative difficulty of the items?

	Total	
	N	%
Generally Disagreed	1	1.69
Somewhat Disagreed	8	13.56
Neutral	8	13.56
Somewhat Agreed	25	42.37
Generally Agreed	17	28.81
Total	59	100.00

How would you rate the organization of the standard setting?

	Total	
	N	%
Very Disorganized	--	--
Disorganized	1	1.69
Neutral	4	6.78
Organized	28	47.46
Very Organized	26	44.07
Total	59	100.00

How would you rate the general Bookmark training?

	Total	
	N	%
Fail	--	--
Poor	2	3.39
Fair	7	11.86
Good	25	42.37
Excellent	25	42.37
Missing	--	--
Total	59	100.00

How would you rate the group leaders?

	Total	
	N	%
Fail	--	--
Poor	2	3.39
Fair	7	11.86
Good	15	25.42
Excellent	34	57.63
Missing	1	1.69
Total	59	100.00

How would you rate the meeting rooms?		
	Total	
	N	%
Fail	--	--
Poor	1	1.69
Fair	11	18.64
Good	23	38.98
Excellent	22	37.29
Missing	2	3.39
Total	59	100.00

How would you rate the catered food?		
	Total	
	N	%
Fail	1	1.69
Poor	9	15.25
Fair	15	25.42
Good	9	15.25
Excellent	7	11.86
Missing	18	30.51
Total	59	100.00

How would you rate the overall facilities?		
	Total	
	N	%
Fail	--	--
Poor	--	--
Fair	8	13.56
Good	8	13.56
Excellent	25	42.37
Missing	18	30.51
Total	59	100.00

How would you rate the overall value of the conference?		
	Total	
	N	%
Fail	--	--
Poor	--	--
Fair	2	3.39
Good	15	25.42
Excellent	42	71.19
Missing	--	--
Total	59	100.00

How would you rate the overall value of analyzing the ordered item booklet?		
	Total	
	N	%
Fail	--	--
Poor	1	1.69
Fair	6	10.17
Good	20	33.90
Excellent	32	54.24
Missing	--	--
Total	59	100.00

How would you rate the overall value of interacting with your peers?		
	Total	
	N	%
Fail	--	--
Poor	--	--
Fair	--	--
Good	14	23.73
Excellent	45	76.27
Missing	--	--
Total	59	100.00

How would you rate the overall value of constructing better classroom tests?		
	Total	
	N	%
Fail	--	--
Poor	1	1.69
Fair	11	18.64
Good	20	33.90
Excellent	24	40.68
Missing	3	5.08
Total	59	100.00

How would you rate the overall value of targeting instruction?		
	Total	
	N	%
Fail	1	1.69
Poor	--	--
Fair	7	11.86
Good	18	30.50
Excellent	31	52.54
Missing	2	3.39
Total	59	100.00