

# **Wisconsin**

## **Knowledge and Concepts Examinations**

**Standard Setting Technical Report**

**for**

**Grades 4, 8, and 10**

**Reading, Language Arts, Mathematics, Science,  
and Social Studies**

April 2003

CTB/McGraw-Hill



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## **Section A**

### Executive Summary



## Executive Summary

Staff from CTB/McGraw-Hill conducted a Bookmark Standard Setting that was held in Madison, Wisconsin, from February 9-12, 2003, to establish proficiency-level cut scores for the Reading, Language Arts, Mathematics, Science, and Social Studies Wisconsin Knowledge and Concepts Examinations (WKCE) in Grades 4, 8, and 10. Participants in each grade/content area participated in three rounds of activities in which they determined three cut scores that defined four proficiency levels: *Minimal Performance*, *Basic*, *Proficient*, and *Advanced*.

Participants were recruited from across the state of Wisconsin to establish the cut scores. Approximately 20 panelists participated in each grade/content area. Within each grade/content area, the Wisconsin Department of Public Instruction divided participants into three small groups that were balanced in terms of relevant demographic characteristics (e.g., geographic location, school size).

Table 1 summarizes the cut scores recommended by the participants in each grade/content area after the final round of discussion and voting. The impact data are based on the statewide data from the WKCE Fall 2002 assessments.

This report summarizes the results of the Wisconsin Standard Setting. A round-by-round synopsis of this Bookmark Standard Setting is included in Section B. The Master Agenda is presented in Section C. Please note that this agenda lists the activities followed by the Grades 4, 8, and 10 Mathematics, Science, and Social Studies groups. The participants chosen for the Grades 4, 8, and 10 Reading groups did these activities for Reading, and then repeated the activities for Language Arts. The overheads presented to Table Leaders and participants during training and orientation are included in Section D. All training materials given to participants are provided in Section E. The check set and its results are also included in Section E. Section F contains the participant evaluation of the Wisconsin Standard Setting. In Section G, estimates are given of the percentage of students in each proficiency level at plus/minus one, two, and three standard errors of the participants' recommended cut scores for each grade/content area. In Sections H through V, for each grade/content area we provide detailed results of the participants' standard setting judgments; impact data for Rounds 1, 2, and 3; and graphical representations of the participants' judgments and standard errors. The cut scores and associated impact data in Section W reflect the data that were shown to the participants at the time of the Wisconsin Standard Setting. The memorandum written to the Technical Advisory Committee is also included in Section W.

**Table 1. Cut Scores and Associated Impact Data by Grade/Content Area**

**Final Recommended Cut Scores**

	Grade 4			Grade 8			Grade 10		
	Basic	Proficient	Advanced	Basic	Proficient	Advanced	Basic	Proficient	Advanced
Reading	585	616	653	633	654	698	676	694	711
Language	592	621	658	644	668	702	672	696	740
Mathematics	602	614	649	659	682	730	702	723	769
Science	579	614	663	660	682	717	697	710	740
Social Studies	592	611	639	639	662	693	689	695	714

**Impact Data Based on Final Recommended Cut Scores**

	Grade 4			Grade 8			Grade 10				
	Basic	Proficient	Advanced	Minimal Performance	Basic	Proficient	Advanced	Minimal Performance	Basic	Proficient	Advanced
Reading	12.52	43.87	39.26	7.25	8.54	42.47	41.74	11.48	11.22	19.33	57.98
Language	14.72	46.32	33.55	13.57	22.59	44.05	19.79	8.58	20.07	51.91	19.45
Mathematics	11.28	41.46	31.81	12.82	12.08	48.86	26.24	14.67	11.21	49.12	25.01
Science	16.52	59.71	19.24	9.52	15.19	49.90	25.38	16.99	9.08	36.08	37.85
Social Studies	5.90	30.48	61.47	3.77	11.37	48.44	36.42	18.42	6.77	28.18	46.62

## **Section B**

### Round-by-round Synopsis of the Wisconsin Standard Setting

## **Wisconsin Standard Setting**

The Bookmark Standard Setting Procedure (BSSP) for the Wisconsin Knowledge and Concepts Examinations (WKCE) consisted of training, orientation, three rounds of judgments, description writing, and a round of cross-grade discussion for Table Leaders. The Wisconsin Standard Setting lasted three-and-a-half days, with one-half day devoted to Table Leader training and three days to the BSSP. The Master Agenda for the Wisconsin Standard Setting is included in Section C

### *Bookmark Roles*

#### **CTB Staff**

The CTB Standard Setting Team worked with staff from the Wisconsin Department of Public Instruction (DPI) to design and organize the Wisconsin Standard Setting. The CTB Standard Setting team is comprised of Karla Egan, Ph.D., Adele Brandstrom, and Ricardo Mercado. Dr. Egan is CTB's Research Project Manager for all standard setting activities and workshops. Ricardo Mercado and Adele Brandstrom are CTB Standard Setting Specialists. During the standard setting, this team is responsible for facilitating the standard setting meeting, training participants, and entering participant results into a database. Before the standard setting workshop, this team prepares all materials related to the standard setting.

Additional CTB Research Scientists, William Lorie, Ph.D., Ross Green, Ph.D., and Richard Schwarz, Ph.D., assisted with training participants during the Wisconsin Standard Setting. Richard Schwarz is the CTB Research Project Manager for the Wisconsin contract. Zhen Wang, Ph.D., is a CTB Research Scientist working on the Wisconsin contract; she did not attend the Standard Setting. CTB Research Associates Tracy Podrabsky, Michelle Boyer, Matt Gordon, and John Hayter assisted with data entry and materials management during the Wisconsin Standard Setting.

Melody Wall is CTB's Program Manager and Brenda Lewis is CTB's Program Coordinator for the Wisconsin contract.

#### **Group Leaders**

Group Leaders essentially administrate the standard setting for those major portions that are "in-session." There is one Group Leader for each grade/content area. They are provided more training in the Bookmark Standard Setting Procedure. In each grade/content area, the Group Leader is in charge of security, data management, and time management. They collect the Bookmark data from participants and communicate with CTB Research staff and state department staff. Group Leaders also keep the small groups on approximately the same schedule, and lead large group discussions in Round 3, following the presentation of impact data.

The Group Leaders for each grade/content area are summarized in Table 1. All Group Leaders were provided by CTB.

**Table 1. Group Leaders for Each Grade/Content Area**

Grade	Reading/Language Arts	Mathematics	Science	Social Studies
Grade 4	Daniel Macomber	Steven Marsh	Margie Tully	Sheila Boyd
Grade 8	Judy Staten	Michael Frontz	Sarah Bryant	Mark Rathjen
Grade 10	Cathy Upham	Teresa Hall	Brian Dalton	Josef Maurer

**Table Leaders**

There were three Table Leaders in each grade/content area. Table Leaders are voting participants. Their primary role is to monitor the group discourse, focus the group on the current task, facilitate discussion, and maintain the schedule.

**Participants**

The Wisconsin Department of Public Instruction invited approximately 21 participants to set achievement-level standards in each grade/content area. Table 2 shows the number and demographic composition of each group of participants. Table 3 summarizes the educational background of each group of participants. Table 4 presents the work experience of each group of participants.

In each grade/content area, the Wisconsin Department of Public Instruction divided participants into three groups that were balanced in terms of relevant demographic characteristics (e.g., geographic location, school size).

**Table 2. Demographic Composition of Each Grade/Content Area**

	Female	Male	American Indian	Asian/ Pacific Islander	African American	Hispanic	White	Other
<b>All Respondents</b>	<b>67.8%</b>	<b>32.2%</b>	<b>1.3%</b>	<b>1.3%</b>	<b>15.1%</b>	<b>4.0%</b>	<b>74.2%</b>	<b>4.0%</b>
<b>Reading Only (n=59)</b>	<b>74.1%</b>	<b>25.9%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>23.2%</b>	<b>0.0%</b>	<b>75.0%</b>	<b>1.8%</b>
<b>4 Reading (n=21)</b>	80.0%	20.0%	0.0%	0.0%	21.1%	0.0%	78.9%	0.0%
<b>8 Reading (n=19)</b>	77.8%	22.2%	0.0%	0.0%	27.8%	0.0%	72.2%	0.0%
<b>10 Reading (n=19)</b>	65.0%	35.0%	0.0%	0.0%	21.1%	0.0%	73.7%	5.3%
<b>Math Only (n=60)</b>	<b>69.5%</b>	<b>30.5%</b>	<b>0.0%</b>	<b>1.7%</b>	<b>13.8%</b>	<b>5.2%</b>	<b>74.1%</b>	<b>5.2%</b>
<b>4 Math (n=21)</b>	71.4%	28.6%	0.0%	5.0%	20.0%	0.0%	75.0%	0.0%
<b>8 Math (n=20)</b>	70.0%	30.0%	0.0%	0.0%	10.0%	10.0%	65.0%	15.0%
<b>10 Math (n=19)</b>	66.7%	33.3%	0.0%	0.0%	11.1%	5.6%	83.3%	0.0%
<b>Science (n=56)</b>	<b>69.1%</b>	<b>30.9%</b>	<b>0.0%</b>	<b>1.8%</b>	<b>16.4%</b>	<b>5.5%</b>	<b>69.1%</b>	<b>7.3%</b>
<b>4 Science (n=18)</b>	94.4%	5.6%	0.0%	0.0%	16.7%	5.6%	72.2%	5.6%
<b>8 Science (n=20)</b>	61.1%	38.9%	0.0%	0.0%	16.7%	0.0%	77.8%	5.6%
<b>10 Science (n=18)</b>	52.6%	47.4%	0.0%	5.3%	15.8%	10.5%	57.9%	10.5%
<b>Social Studies Only (n=59)</b>	<b>58.6%</b>	<b>41.4%</b>	<b>5.4%</b>	<b>1.8%</b>	<b>7.1%</b>	<b>5.4%</b>	<b>78.6%</b>	<b>1.8%</b>
<b>4 Social Studies (n=18)</b>	72.2%	27.8%	5.6%	5.6%	22.2%	0.0%	61.1%	5.6%
<b>8 Social Studies (n=22)</b>	50.0%	50.0%	9.5%	0.0%	0.0%	9.5%	81.0%	0.0%
<b>10 Social Studies (n=19)</b>	55.6%	44.4%	0.0%	0.0%	0.0%	5.9%	94.1%	0.0%

**Table 3. Educational Background of Participants in Each Grade/Content Area**

	<b>Bachelor's</b>	<b>Master's</b>	<b>Doctorate</b>
<b>All Respondents</b>	<b>21.4%</b>	<b>72.5%</b>	<b>6.1%</b>
<b>Reading Only (n=59)</b>	<b>21.1%</b>	<b>71.9%</b>	<b>7.0%</b>
4 Reading (n=21)	15.0%	80.0%	5.0%
8 Reading (n=19)	16.7%	83.3%	0.0%
10 Reading (n=19)	31.6%	52.6%	15.8%
<b>Math Only (n=60)</b>	<b>28.8%</b>	<b>64.4%</b>	<b>6.8%</b>
4 Math (n=21)	9.5%	85.7%	4.8%
8 Math (n=20)	55.0%	40.0%	5.0%
10 Math (n=19)	22.2%	66.7%	11.1%
<b>Science (n=56)</b>	<b>18.2%</b>	<b>74.5%</b>	<b>7.3%</b>
4 Science (n=18)	27.8%	66.7%	5.6%
8 Science (n=20)	16.7%	77.8%	5.6%
10 Science (n=18)	10.5%	78.9%	10.5%
<b>Social Studies Only (n=59)</b>	<b>17.2%</b>	<b>79.3%</b>	<b>3.4%</b>
4 Social Studies (n=18)	22.2%	77.8%	0.0%
8 Social Studies (n=22)	13.6%	81.8%	4.5%
10 Social Studies (n=19)	16.7%	77.8%	5.6%

**Table 4. Work Experience of Participants in Each Grade/Content Area**

	<b>Classroom Teacher</b>	<b>Education (Non-Teacher)</b>	<b>Non-Education Professional</b>
<b>All Respondents</b>	<b>71.9%</b>	<b>25.0%</b>	<b>3.1%</b>
<b>Reading Only (n=59)</b>	<b>67.2%</b>	<b>31.0%</b>	<b>1.7%</b>
4 Reading (n=21)	70.0%	30.0%	0.0%
8 Reading (n=19)	55.6%	44.4%	0.0%
10 Reading (n=19)	75.0%	20.0%	5.0%
<b>Math Only (n=60)</b>	<b>74.6%</b>	<b>23.7%</b>	<b>1.7%</b>
4 Math (n=21)	71.4%	28.6%	0.0%
8 Math (n=20)	75.0%	25.0%	0.0%
10 Math (n=19)	77.8%	16.7%	5.6%
<b>Science (n=56)</b>	<b>72.2%</b>	<b>22.2%</b>	<b>5.6%</b>
4 Science (n=18)	66.7%	27.8%	5.6%
8 Science (n=20)	76.5%	17.6%	5.9%
10 Science (n=18)	73.7%	21.1%	5.3%
<b>Social Studies Only (n=59)</b>	<b>73.7%</b>	<b>22.8%</b>	<b>3.5%</b>
4 Social Studies (n=18)	64.7%	29.4%	5.9%
8 Social Studies (n=22)	77.3%	22.7%	0.0%
10 Social Studies (n=19)	77.8%	16.7%	5.6%

*Bookmark Materials*

**Ordered Item Booklets**

The ordered item booklets (OIBs) were comprised of items from the operational form of the Wisconsin assessments, augmented with additional items to provide better coverage of the content standards and test scale. In Grades 4 and 8 Reading and Language Arts, items were added from *TerraNova* Form A Multiple Assessments. In Grade 10 Reading, Language Arts, Mathematics, Science, and Social Studies, items were added from the Spring 2001 HSGT field tests. In Grade 4 Social Studies, items were added from the Spring 2002 field test. The items were ordered in terms of difficulty using data from the Spring 2002 administration, except for Reading and Language Arts, which used *TerraNova* parameters. The Grade 10 items and their parameters were all from the field tests of the Wisconsin High School Graduation Tests. Table 5 summarizes the number of score points in each OIB by grade/content area.

**Table 5. Number of Score Points in Ordered Item Booklets by Grade/Content Area**

Grade	Reading	Language Arts	Mathematics	Science	Social Studies
4	60	60	69	71	62
8	58	60	69	75	60
10	60	60	70	60	60

**Item Maps**

The item maps summarize the material in the OIBs. The item maps consisted of 6 to 8 columns: the first column indicated the item’s order of difficulty; the second column indicated the scale location; the third indicated the test form in which the item was administered (*TerraNova* or field test), if applicable; the fourth column indicated the item number on the operational test, the fifth column reported the item part, if applicable; the sixth column showed the item type; the seventh column reported the scoring key; and the eighth reported the standard that the item measures. The final two columns were filled in by the participants as they studied the OIB. The first of these columns asks, “What does this item measure? That is, what do you know about a student who can respond successfully to this item/score point?” The second of these columns asks, “Why is this item more difficult than the items that preceded it?”

*Standard Setting: The Day before the Standard Setting*

**Training**

Table Leaders were trained on the day before the Wisconsin Standard Setting started. During this training session, which lasted about four hours, Table Leaders were given an overview of the reasons for standard setting and were trained specifically on the Bookmark Standard Setting Procedure (BSSP). They were also given a synopsis of each day’s activities as well as their responsibilities on each day. The training overheads presented to the Table Leaders are included in Section D.

The Table Leaders participated in a mock BSSP using a sample OIB. This sample OIB is

included in Section E. During the mock BSSP, the Table Leaders practiced all activities that would occur in each round of the BSSP. The Group Leaders acted as Table Leaders during the mock BSSP to demonstrate the type of behavior expected of Table Leaders during the BSSP. All training materials are presented in Section E of this report.

### **Target Student**

After Bookmark training, the Table Leaders wrote descriptors of the *Basic*, *Proficient*, and *Advanced* Target Students. The Table Leaders were directed to use the Wisconsin Model Academic Standards to develop the definitions of the Target Students. A Target Student is a student whose performance is equivalent to the minimum score required for entry into a particular proficiency level. These definitions served as a basis for establishing a common understanding among participants of the type of student that should be considered *Basic*, *Proficient*, and *Advanced* on the Wisconsin assessments.

#### *Standard Setting: Day 1*

### **Orientation**

CTB and Wisconsin Department of Public Instruction welcomed the participants to the Standard Setting. The Wisconsin Department of Public Instruction provided a brief overview of the history of the testing program and described the review procedures that would follow the Standard Setting. CTB Research Scientist Karla Egan and CTB Standard Setting Specialist Ricardo Mercado provided an overview of standard setting and introduced the BSSP to all participants. The participants were trained on how to use their OIB's and item maps. These training overheads are included in Section D.

### **Round 1**

Participants spent approximately one to two hours taking the operational test. When applicable, the Group Leader then reviewed the scoring guides for the constructed-response items with the participants. (Most Grade 10 assessments did not contain constructed-response items.) Then the Table Leaders reviewed Target Student definitions with the participants. Most groups revised these descriptors before studying the OIB. Participants studied each item in the Ordered Item Booklet in terms of what each item measured and why each item is more difficult than the items that preceded it.

#### *Standard Setting: Day 2*

### **Bookmark Training**

Once all tables within a group completed their study of the OIB's, a CTB Research Scientist or Standard Setting Specialist trained participants on how to place their Bookmarks. Participants were given training materials and three explanations of Bookmark placement. The training materials "Bookmark Placement" and "Frequently Asked Questions about Bookmark Placement" were read aloud. The first explanation explained the mechanics of Bookmark placement: participants were instructed that all items preceding the Bookmark define the knowledge, skills, and abilities that a *Proficient* student is expected to know. The second explanation was more conceptual in that participants were instructed to examine each item in terms of its content. They were instructed to make a judgment about the type of content that a student would need to know in order to be considered *barely Proficient*. The final explanation linked the use of



the 2/3 mastery probability to the placement of the Bookmark. The Bookmark training materials are included in Section E.

The participants were tested on their knowledge of Bookmark placement with a short check set. The check set and its results are presented in Section E. Participants were then given the correct answers for the check set as well as explanations of those answers. Once participants indicated that they understood Bookmark placement, each participant was directed to individually place their Bookmarks for *Basic*, *Proficient*, and *Advanced* while keeping in mind their descriptions of the Target Students and the Wisconsin Model Academic Standards.

## **Round 2**

At the beginning of Round 2, a CTB Research Scientist or Standard Setting Specialist working with a Wisconsin Department of Public Instruction (DPI) representative presented participants with aggregate and disaggregated impact data based on their Round 1 Bookmark placements. Disaggregated data was presented for the following subgroups: Students eligible for free/reduced lunch, Students of Color, and Majority. CTB staff answered process-related questions while Wisconsin DPI staff answered all policy-related questions related to the impact data. It was emphasized to the participants that the impact data was being presented as a “reality check.”

During Round 2, participants discussed their Bookmark placements in small groups at their tables. Participants were instructed to discuss those items for which there was disagreement among the small group; thus, they discussed the range of items in between the lowest and highest Bookmark placements for each proficiency level. After discussions, they again placed Bookmarks. Participants were reminded that Bookmark placement was an individual activity.

## **Round 3**

A CTB Research Scientist or Standard Setting Specialist working with a Wisconsin DPI representative presented participants with the aggregate and disaggregated impact data based on their Round 2 Bookmark placements. Again, Wisconsin DPI answered all policy questions regarding impact data. It was further emphasized that the participants were to make recommendations about content and were not to chase numbers. The Group Leaders then facilitated discussion among the participants on their Bookmark placements. After discussion, participants placed their final Bookmarks.

## **Final Results**

Participants were shown their final median Bookmark placements and the aggregate and disaggregated impact data based on this median Bookmark.

## **Cross-Grade Discussion**

For each content area, Table Leaders from each grade met to discuss the cross-grade impact data. These Table Leaders wrote a memorandum (included in Section W) to the Technical Advisory Committee. The Grade 4 Reading/Language Arts did not attend the cross-grade presentations due to time constraints.

### Description Writing

On the final day of the Wisconsin Standard Setting, participants wrote long descriptors for each proficiency level. Long descriptors are often used by teachers to provide a more precise understanding of the expectations of students in each proficiency level. Due to time constraints, the Grade 4 Reading/Language Arts did not complete this activity.

### Quality Control Procedures

The CTB Standard Setting Team adheres to many quality control procedures to foster the accuracy of the materials used and the results presented during the Standard Setting. Prior to the workshop, the Standard Setting Team cross-checks the ordering of items in the Ordered Item Booklets, the accuracy of the information in the Item Maps, the accuracy of the Microsoft Excel macros used to generate results and impact data, and the completeness of the anchor papers and scoring guides. During the workshop, all data entry and reporting is monitored by a two-person team who first enter the data and then check them for accuracy. Any results that appear to be questionable are further investigated by the Standard Setting Project Manager, in consultation with the Standard Setting Team and CTB Research staff.

### Evaluation

After writing descriptors, the participants completed an evaluation of the Standard Setting. The evaluation and its results are included in Section F. Table 6 summarizes the participants' satisfaction with their group's final bookmarks.

**Table 6. Participants Agreement/Disagreement with the Statement, "Overall, I was satisfied with my group's final bookmarks."**

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>2.7%</b>	<b>6.4%</b>	<b>13.2%</b>	<b>46.1%</b>	<b>31.5%</b>
<b>Reading Only (n=59)</b>	<b>3.7%</b>	<b>3.7%</b>	<b>11.1%</b>	<b>46.3%</b>	<b>35.2%</b>
<b>4 Reading (n=21)</b>	0.0%	0.0%	10.0%	50.0%	40.0%
<b>8 Reading (n=19)</b>	6.7%	13.3%	6.7%	53.3%	20.0%
<b>10 Reading (n=19)</b>	5.3%	0.0%	15.8%	36.8%	42.1%
<b>Math Only (n=60)</b>	<b>3.6%</b>	<b>5.4%</b>	<b>8.9%</b>	<b>44.6%</b>	<b>37.5%</b>
<b>4 Math (n=21)</b>	5.3%	5.3%	10.5%	57.9%	21.1%
<b>8 Math (n=20)</b>	5.3%	10.5%	15.8%	42.1%	26.3%
<b>10 Math (n=19)</b>	0.0%	0.0%	0.0%	33.3%	66.7%
<b>Science (n=56)</b>	<b>1.8%</b>	<b>12.5%</b>	<b>16.1%</b>	<b>39.3%</b>	<b>30.4%</b>
<b>4 Science (n=18)</b>	5.6%	22.2%	0.0%	27.8%	44.4%
<b>8 Science (n=20)</b>	0.0%	5.3%	5.3%	57.9%	31.6%
<b>10 Science (n=18)</b>	0.0%	10.5%	42.1%	31.6%	15.8%
<b>Social Studies Only (n=59)</b>	<b>1.9%</b>	<b>3.8%</b>	<b>17.0%</b>	<b>54.7%</b>	<b>22.6%</b>
<b>4 Social Studies (n=18)</b>	0.0%	0.0%	17.6%	64.7%	17.6%
<b>8 Social Studies (n=22)</b>	0.0%	10.0%	15.0%	50.0%	25.0%
<b>10 Social Studies (n=19)</b>	6.3%	0.0%	18.8%	50.0%	25.0%

SD = Strongly Disagree D = Disagree N = Neutral A = Agree SA = Strongly agree

## *Results of the Standard Setting*

### **Standard Setting Results**

Detailed information for each grade/content area is presented in Sections H through V. Each section contains:

- 1 Detailed results of the bookmark placements and their associated scale scores
- 2 Impact data for Rounds 1, 2, and 3
- 3 Graphical representations of participants' judgments and their standard errors

The impact data are based on the statewide data from the WKCE Fall 2002 assessments.

### **Standard Errors**

Section G contains estimates of the percentage of students in each proficiency level at plus/minus one, two, and three standard errors of the participants' recommended cut scores for each grade/content area.

### **Final Cut Scores and Associated Impact Data**

The final cut scores that the participants recommended and the associated impact data are included in Section W. The memorandum written to the Technical Advisory Committee is also included in Section W.

## **Section C**

### Master Agenda for the Wisconsin Standard Setting

*Please note that this agenda lists the activities followed by the Grades 4, 8, and 10 Mathematics, Science, and Social Studies groups.*

*The participants chosen for the Grades 4, 8, and 10 Reading groups did these activities for Reading, then repeated the activities for Language Arts.*

## *Wisconsin WKCE Standard Setting Master Agenda*

---

Welcome to the Wisconsin WKCE Grades 4, 8 & 10 Mathematics, Science and Social Studies Standard Setting! The Wisconsin Department of Public Instruction 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 Standard Setting. If you have any question or concerns, please do not hesitate to ask a member of the CTB Standard Setting Team.

### **Sunday, February 9: Table Leader Training**

**12:45 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, learn how the Bookmark Standard Setting Procedure works, and discuss your role and responsibilities during the workshop.

**3:00 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. Table Leaders for each content area will discuss the cross-grade Target Student descriptions.

**5:30 PM Dismissal**

### **Monday, February 10: Training and Studying the Ordered Item Booklet**

**8:00 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 how the Bookmark Standard Setting Procedure works. After this session, participants break into their assigned grade/content areas and tables.

**10:00 AM Take operational test**

Participants sign out materials and then take the operational test under testing conditions similar to those experienced by students.

- ∫ Ensure that all participants at your table write their name on each of their secure materials. All secure materials are printed on colored paper.

**11:00 AM Study constructed-response items**

The Group Leader leads an examination of each constructed-response item and its scoring rubric, focusing on the knowledge, skills and abilities required to achieve each score point.

- ∫ Although some discussion about individual test questions is normal, focus your participants away from prolonged debate and toward taking the test.
- ∫ Use the provided index cards to record comments about test questions.

**12:00 PM Lunch**

The group stops work for a one-hour lunch.

**1:00 PM Target Student discussion**

The group discusses the knowledge, skills, and abilities expected of students in each performance level.

**2:00 PM Begin discussion of each item in the Ordered Item Booklet**

Facilitate a discussion amongst everyone at your table on each of the items in the Ordered Item Booklet. 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.

- ∫ Remember to use the index cards, as necessary.
- ∫ Ensure each participant at your table has a chance to speak.

**5:15 PM Secure materials collection**

The Group Leader facilitates collection of the test materials from all participants.

- ∫ Lead the collection of secure materials at your table. See the “Secure Materials Collection” tab for more information.

**5:30 PM Debriefing**

## Tuesday, February 11: Rounds 1 and 2

- 8:00 AM Continental breakfast**  
Continental breakfast is served.
- 8:30 AM Finish discussion of each item in the Ordered Item Booklet**  
Groups continue the discussion begun on each of the items in the Ordered Item Booklet.
- 12:00 PM Lunch**  
The group will stop 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 will be given, followed immediately by Round 1 bookmark placement.
- ∫ See “Notes about Your Bookmark Placement” for more info.
  - ∫ Remind your participants that bookmark placement is always an individual activity.
  - ∫ Collect your participants’ rating forms as they complete them, ensuring that each participant has made a single, unambiguous rating for each bookmark placement.
  - ∫ Fill out your orange sheet and begin Round 2 discussions.
  - ∫ Give your participants’ rating forms to the Group Leader.
- 2:00 PM Discuss Round 1**  
Lead a discussion surrounding the ratings made in Round 1.
- 5:00 PM Round 2 ratings**  
After your Round 1 discussion, begin Round 2 bookmark placement.
- ∫ Conduct Round 2 just as Round 1. Remind your participants that bookmark placement is always an individual activity.
  - ∫ Collect your participants’ ratings forms as they complete them.
  - ∫ You need not complete another orange sheet.
- 5:15 PM Secure materials collection**  
Your Group Leader facilitates collection of the test materials from all participants.
- ∫ Lead the collection of secure materials at your table. See the “Secure Materials Collection” tab for more information.
- 5:30 PM Dismissal**

**Wednesday, February 12: Round 3, Cross-Grade Discussion, Descriptor Writing, and Evaluations**

**8:00 AM Continental breakfast**  
Continental breakfast will be served.

**8:30 AM Discuss Round 2**  
The Group Leader presents a summary of the voting from each table to the entire group. Afterwards, s/he leads a discussion on each bookmark, very similar to the discussions of Round 2.

**10:30 AM Round 3 ratings**  
The Group Leader directs all participants to make their Round 3 bookmark placements.

- ∫ Collect your participants' ratings forms as they complete them.
- ∫ You need not complete another orange sheet.

**11:00 AM Presentation of final results**  
A summary of Round 3 results and impact data are presented to the entire group.

**11:30 AM Cross-grade discussion for Table Leaders**  
Table Leaders meet apart from their groups to discuss the reasonability of the performance standards set by other groups.

- ∫ You will meet with Table Leaders from other grade levels within your content area.
- ∫ During this conversation, the Group Leader will lead participants at your table in Description Writing, described below.

*Description writing, first draft*

The Group Leader presents instructions for writing a first draft of the long performance level descriptors.

- ∫ Your group's descriptors should synthesize the knowledge, abilities, and skills necessary to respond successfully to each of the items assigned to each performance level.
- ∫ Your group will receive a listing of the items that correspond to the content standard you will work with.

**12:00 PM Lunch**  
The group stops for a one-hour lunch.




- 1:00 PM**     **Continue cross-grade discussion for Table Leaders**  
Table Leaders rejoin their groups when the cross-grade discussion is complete. During the discussion, participants continue Description Writing.
- Description writing, continue first draft (1:00 PM)*  
Each group continues work on its assigned descriptors.
- Description writing, final draft (2:30 PM)*  
Each group presents its draft to the entire group, elicits comments, and writes second drafts.
- 5:00 PM**     **Secure materials collection**  
Your Group Leader facilitates collection of the test materials from all participants.
- ]     Lead the collection of secure materials at your table. See the “Secure Materials Collection” tab for more information.
- 5:15 PM**     **Evaluations**  
Each participant is asked to complete a Standard Setting evaluation.
- 5:30 PM**     **Dismissal**  
The Wisconsin Department of Public Instruction and CTB/McGraw-Hill thank you for your time and participation.

## **Section D**

1. Table Leader Training Overheads
2. Participant Training Overheads

## Table Leader Training Overheads



# Setting the Standard

Wisconsin Grades 4, 8 & 10 Reading,  
Language Arts, Mathematics, Science,  
and Social Studies  
Table Leader Training

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## CTB's Standard Setting Team

- Karla Egan
- Rick Mercado
- Adele Brandstrom
- Will Lorie
- Ross Green
- Rich Schwarz
- Tracy Podrabsky
- Matt Gordon
- John Hayter
- Michelle Boyer
- Melody Wall
- Brenda Lewis
- Dan Macomber
- Judy Staten
- Cathy Upham
- Steve Marsh
- Michael Frontz
- Teresa Hall
- Margie Tully
- Sarah Bryant
- Brian Dalton
- Sheila Boyd
- Mark Rathjen
- Joe Maurer

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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, *Minimal Performance, Basic, and Advanced* students.

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## Why standard setting?

- Content standards define what students are tested on.
  - These are things students *should* be able to do.
  - Wisconsin has content standards in Reading, Language Arts, Mathematics, Science, and Social Studies.
- Performance standards define what students *can do* in each performance level.
  - We 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 *Minimal Performance, Basic, Proficient, or Advanced*.

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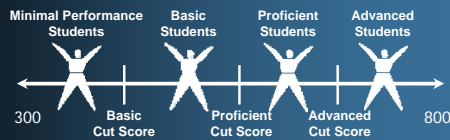
## How do we set our standards?

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

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## Purpose of the Standard Setting

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



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## Purpose of the Standard Setting

- We will 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 WKCE tests.
  - Also *Basic* and *Advanced*.
- Content decisions will be based on Wisconsin content standards.

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## Bookmark Standard Setting

- Item-centered method
- Content-based decisions

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## Committee Roles

- Group Leaders
- Table Leaders
- Participants
- Wisconsin DPI
- CTB



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## Committee Roles

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



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## Committee Roles

- 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
- Final Recommendations
  - Table Leaders have cross-grade discussion
  - Description writing

## Ordered Item Booklets

- One boxed item per page
- Easiest item first, hardest item last
- Items ascend by difficulty

## Item Map

Print Name: \_\_\_\_\_ Group Number: \_\_\_\_\_

Order of difficulty (easy to hard)	Location	Block	Item No.	Item Type	Score Key	Content Strand*	What does this item measure?	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

## Item *Subtraction, operations, eliminate distractors*

Print Name: \_\_\_\_\_

Order of difficulty (easy to hard)	Location	Block	Item No.	Item Type	Score Key	Content Strand*	What does this item measure?	Why is this item more difficult than the preceding items?
1	220	12	1	MC	B	1		N/A
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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 2

2

CARTONS OF EGGS SOLD LAST MONTH

Farm A ○ ○ ○ ○  
Farm B ○ ○ ○ ○ ○ ○  
Farm C ○ ○ ○ ○

Each ○ = 100 Cartons

4. According to the graph how many cartons of eggs were sold altogether by farms A, B, and C last month?
- A. 13  
B. 130  
C. 1,300  
D. 13,000

6

Score Point  
1 of 2

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?

Did you use the calculator on this question?

Yes  No

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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

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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**

Did you use the calculator on this question?

Yes  No

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8

Score Point  
2 of 2

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?

Did you use the calculator on this question?

Yes  No

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### Mock Standard Setting

- 2 Performance Levels
  - Proficient
  - Not Proficient
- 11 item test
  - Grade 4 Mathematics test

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### Target Student

- We want to describe the skills held in *common* by *all* these students
  - These are the skills of the Just *Proficient* student

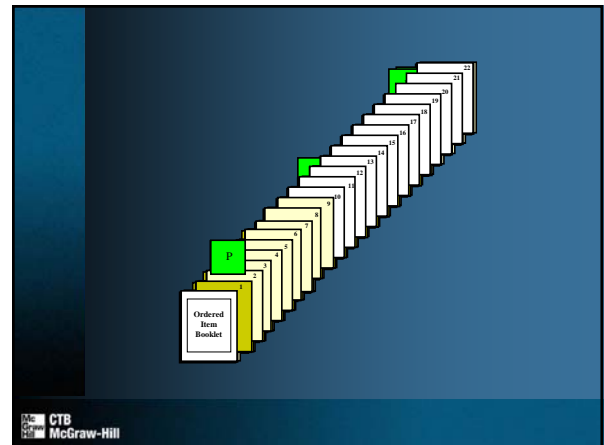
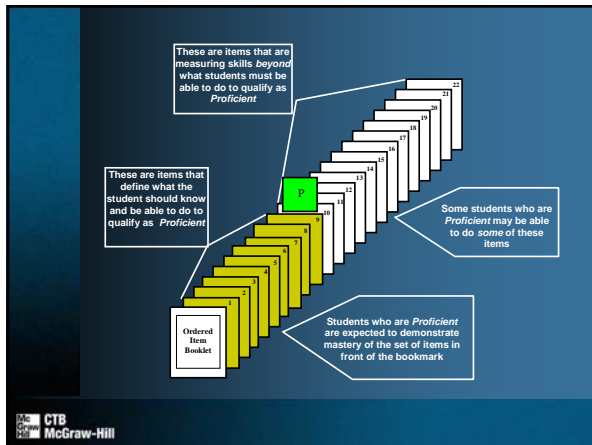
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## Bookmark Placement

- Items preceding the Bookmark reflect content that all *Proficient* students should master
  - for MC items this means that the *Proficient* students should most likely know the correct responses
  - for CR items this means that the *Proficient* students should most likely obtain that score point

## Bookmark Placement

- Place the bookmark at the first point where you feel that a student who has mastered the content reflected by the items before the bookmark has demonstrated sufficient skills to infer that the student merits a passing score.

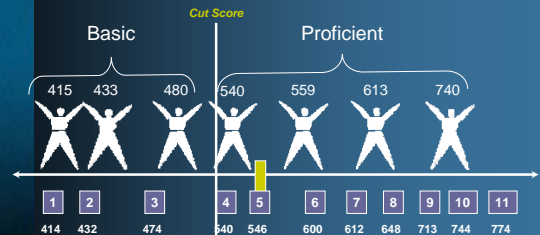


## Test Scale



Items ordered by difficulty.  
Students ordered by ability.

## The Bookmark & the Cut Score



The bookmark separates items.  
The cut score separates students.



## Mastery

- Students show mastery when they have at least a 2/3 chance of answering an item correctly.
  - Decision to use 2/3 based on research

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## Item Location

Location is an indication of difficulty.  
Location represents the ability level necessary to have a .67 chance of answering the item correctly.

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## Mastery and the Target Student

A student right at the cut score will have at least a 2/3 chance of answering the items at and below the cut score correctly.

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## Rating Form

Print Name: \_\_\_\_\_  
Group No.: \_\_\_\_\_

**Grade 4 Mathematics**

	<i>Basic</i> Bookmark on Page #	<i>Proficient</i> Bookmark on Page #	<i>Advanced</i> Bookmark on Page #
Round 1			
Round 2			
Round 3			

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## Rating Form

Group \_\_\_\_\_ Round \_\_\_\_\_

Participant	<i>Basic</i> Bookmark on Page #	<i>Proficient</i> Bookmark on Page #	<i>Advanced</i> Bookmark on Page #
1			
2			
3			
4			
5			

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## Round 2 Orientation

Group 2 Round 1

Participant	<i>Basic</i> Bookmark on Page #	<i>Proficient</i> Bookmark on Page #	<i>Advanced</i> Bookmark on Page #
1	15	34	74
2	18	37	82
3	26	52	82
4	11	33	55
5	30	60	84

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## Sample Round 2 Results

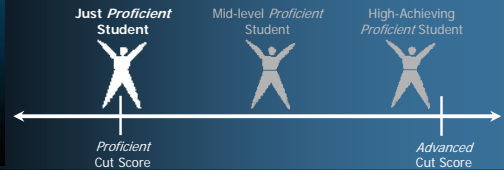
	<i>Basic</i> Bookmark	<i>Proficient</i> Bookmark	<i>Advanced</i> Bookmark
Table 1	15	34	86
Table 2	11	37	82
Table 3	14	34	81
Median	13	34	82

Impact Data: estimated percent of students in each performance level based on the current Large Group median

Minimal Perf.	Basic	Proficient	Advanced
0%	0%	0%	0%

## Target Student Discussion

- The student who has *just* made it into a performance level
  - Just *Basic*, Just *Proficient*, and Just *Advanced* students
- Refer to Wisconsin content standards



## Agenda: Day 1

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

## Agenda: Day 2

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


## Agenda: Day 3

- Round 3
  - Review Round 2 results as a large group
  - Discuss as a large group
  - Make new judgments individually
- Review final results
- Table Leaders discuss cross-grade impact
- Description writing
- Evaluate the Standard Setting

## Questions?

- Thank you for your participation!

## Participant Training Overheads



# Setting the Standard

Wisconsin Grades 4, 8 & 10 Reading,  
Language Arts, Mathematics, Science,  
and Social Studies  
Opening Session

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## CTB's Standard Setting Team

- Karla Egan
- Rick Mercado
- Adele Brandstrom
- Will Lorie
- Ross Green
- Rich Schwarz
- Tracy Podrabsky
- Matt Gordon
- John Hayter
- Michelle Boyer
- Melody Wall
- Brenda Lewis
- Dan Macomber
- Judy Staten
- Cathy Upham
- Steve Marsh
- Michael Frontz
- Teresa Hall
- Margie Tully
- Sarah Bryant
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- Mark Rathjen
- Joe Maurer

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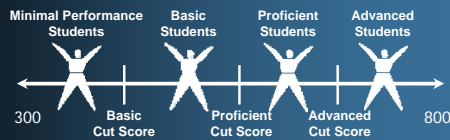
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  - Also *Basic* and *Advanced*.
- Content decisions will be based on Wisconsin content standards.

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## Bookmark Standard Setting

- Item-centered method
- Content-based decisions

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## Committee Roles

- Group Leaders
- Table Leaders
- Participants
- Wisconsin DPI
- CTB



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## Committee Roles

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



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## Committee Roles

- 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
- Final Recommendations
  - Table Leaders have cross-grade discussion
  - Description writing

## Ordered Item Booklets

- One boxed item per page
- Easiest item first, hardest item last
- Items ascend by difficulty

## Item Map

Print Name: \_\_\_\_\_ Group Number: \_\_\_\_\_

Order of difficulty (easy to hard)	Location	Block	Item No.	Item Type	Score Key	Content Strand*	What does this item measure?	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

## Item *Subtraction, operations, eliminate distractors*

Print Name: \_\_\_\_\_

Order of difficulty (easy to hard)	Location	Block	Item No.	Item Type	Score Key	Content Strand*	What does this item measure?	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 2

2

CARTONS OF EGGS SOLD LAST MONTH

Farm A ○ ○ ○ ○  
Farm B ○ ○ ○ ○ ○ ○  
Farm C ○ ○ ○ ○

Each ○ = 100 Cartons

4. According to the graph how many cartons of eggs were sold altogether by farms A, B, and C last month?
- A. 13  
B. 130  
C. 1,300  
D. 13,000

**6**

Score Point  
1 of 2

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?

Did you use the calculator on this question?

Yes  No

**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**

Did you use the calculator on this question?

Yes  No

**8**

Score Point  
2 of 2

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?

Did you use the calculator on this question?

Yes  No

**Agenda: Day 1**

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

**Agenda: Day 2**

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

## Agenda: Day 3

- Round 3
  - Review Round 2 results as a large group
  - Discuss as a large group
  - Make new judgments individually
- Review final results
- Table Leaders discuss cross-grade impact
- Description writing
- Evaluate the Standard Setting

## Questions?

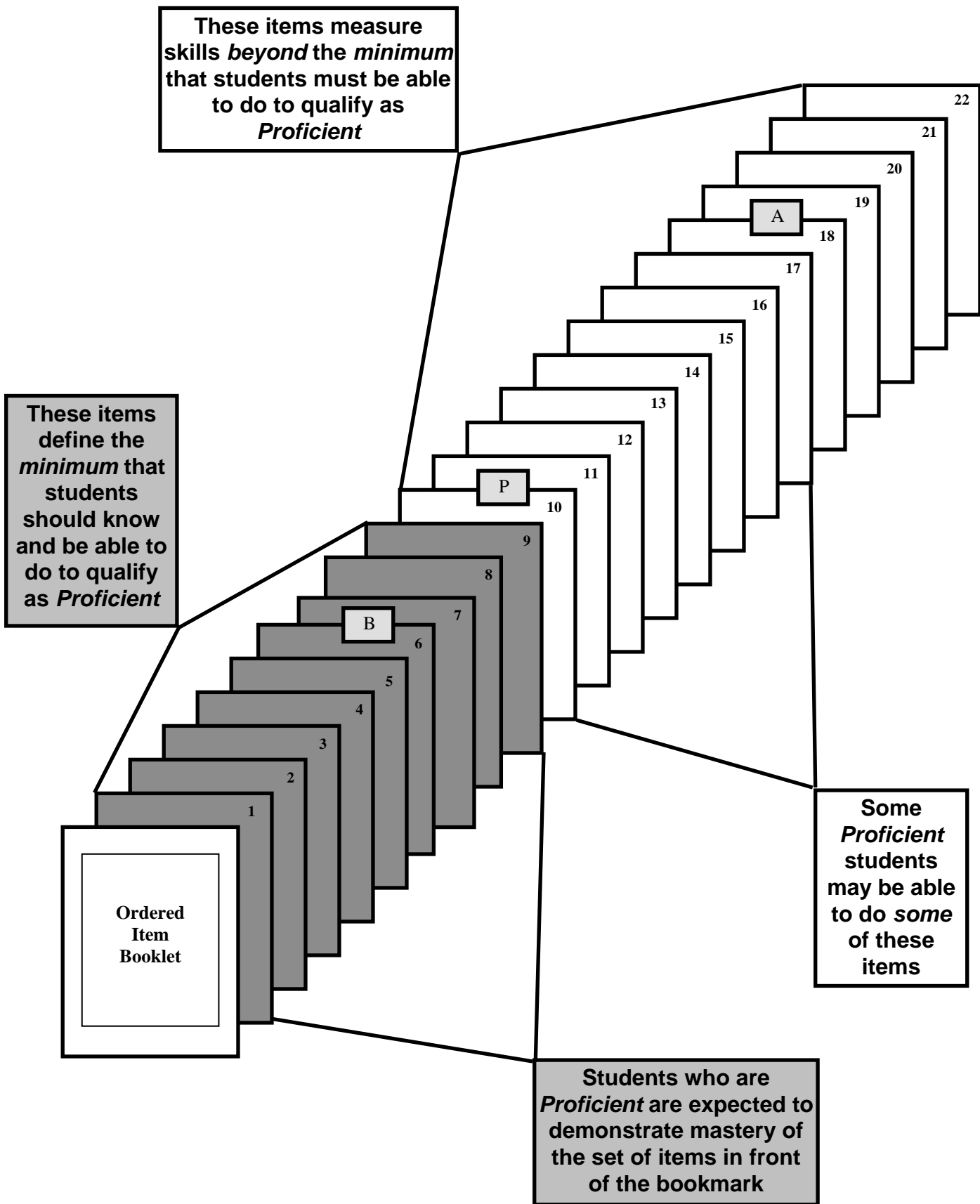
- Thank you for your participation!



## **Section E**

1. Participant Training Materials
2. Check Set Results

## Participant Training Materials



## Bookmark Placement

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

### 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.

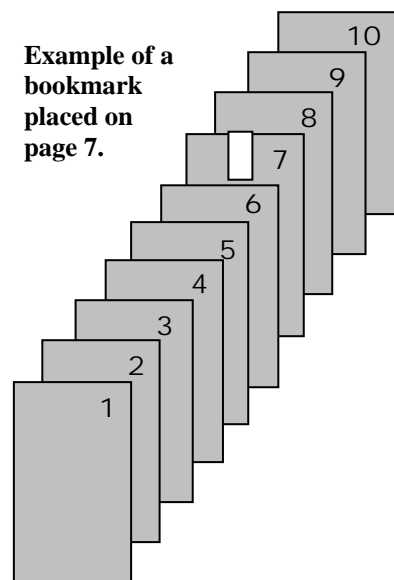
### How do I place my bookmark? The Mechanics

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 is *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* and *Basic* bookmarks.

### 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 handout “Mastery.”

### 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?

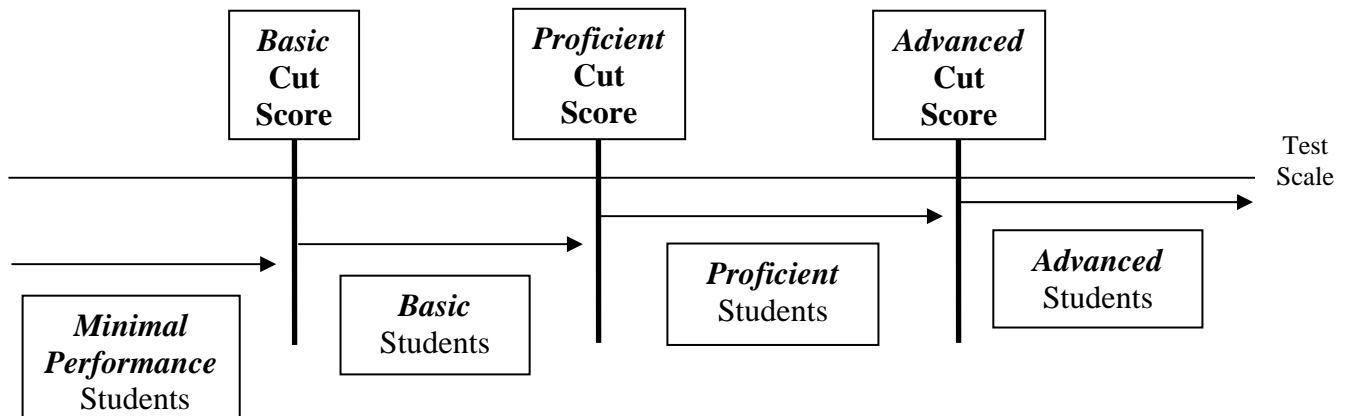
*No*. Remember, you are placing your bookmark based on the content you expect students to know and be able to do. You are *not* making your decision based on the number of items students must answer correctly. The bookmark is placed on a *page* in the Ordered Item Booklet. This page number corresponds 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. In Wisconsin, you will set 3 bookmarks to separate students into 4 proficiency levels.



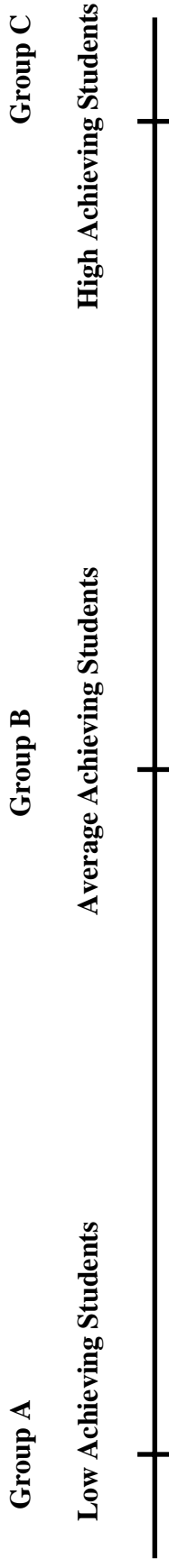
## MASTERY

### 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.

#### Test Scale



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

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

item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
<u>30</u>	<u>29</u>	<u>25</u>	<u>22</u>	<u>20</u>	<u>18</u>	<u>17</u>	<u>14</u>	<u>11</u>	<u>10</u>	<u>9</u>	<u>7</u>	<u>5</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	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	item	item	item	item	item	item	item	item	item	item	item	item	item
1	2	3	4	5	6	7	8	9	10				
<u>99</u>	<u>100</u>	<u>99</u>	<u>100</u>	<u>99</u>	<u>100</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>97</u>	<u>97</u>	<u>97</u>	<u>97</u>	<u>97</u>
100	100	100	100	100	100	100	100	100	100	100	100	100	100

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

item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item	item
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
<u>65</u>	<u>63</u>	<u>63</u>	<u>61</u>	<u>58</u>	<u>57</u>	<u>57</u>	<u>55</u>	<u>55</u>	<u>54</u>	<u>53</u>	<u>53</u>	<u>52</u>	<u>51</u>	<u>44</u>	<u>41</u>	<u>39</u>	<u>37</u>	<u>35</u>	<u>33</u>	
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	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	item	item	item	item	item	item	item	item	item
1	2	3	4	5	6	7	8	9	10
<u>99</u>	<u>99</u>	<u>99</u>	<u>99</u>	<u>99</u>	<u>99</u>	<u>99</u>	<u>99</u>	<u>99</u>	<u>97</u>
100	100	100	100	100	100	100	100	100	100

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

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

## SAMPLE Mathematics Item Map

Print Name: \_\_\_\_\_ Group Number: \_\_\_\_\_

Order of difficulty (easy to hard)	Location	Block	Item No.	Item Type	Score Key	Content Strand *	What does this item measure?	Why is this item more difficult than preceding item
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	262	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

**SAMPLE**

**Standard Setting Workshop**

**Grade 4  
Mathematics**

**Ordered Item Booklet**

**Publicly released items from the National Assessment of Educational  
Progress 1996 State Assessment Program in Mathematics.**

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

This part has 9 questions. Mark your answers in your booklet. You will have to fill in an oval or write your answer as directed. In those questions where you must write an answer, it is important that your answer be clear and complete and that you show all of your work since partial credit may be awarded. The last question may require 5 minutes or more to think about and answer. After each question, fill in the oval to indicate whether you used the calculator.

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?

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

APO00533

Did you use the calculator on this question?

- Yes    No

2. A whole number is multiplied by 5. Which of these could be the result?

- Ⓐ 652  
 Ⓑ 562  
 Ⓒ 526  
 Ⓓ 265

APO00517

Did you use the calculator on this question?

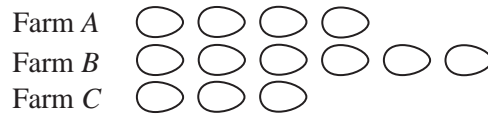

- Yes    No

3.  $N$  stands for the number of stamps John had. He gave 12 stamps to his sister. Which expression tells how many stamps John has now?

- A  $N+12$   
 B  $N-12$   
 C  $12- N$   
 D  $12 \times N$

Q000706

## CARTONS OF EGGS SOLD LAST MONTH

Each  = 100 cartons

4. According to the graph, how many cartons of eggs were sold altogether by farms A, B, and C last month?

- A 13  
 B 130  
 C 1,300  
 D 13,000

Q000701

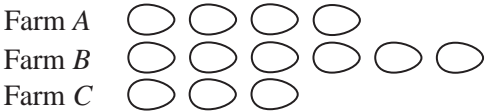
GO ON TO THE NEXT PAGE 


3.  $N$  stands for the number of stamps John had. He gave 12 stamps to his sister. Which expression tells how many stamps John has now?

- Ⓐ  $N+12$
- Ⓑ  $N-12$
- Ⓒ  $12- N$
- Ⓓ  $12 \times N$

Q000706

CARTONS OF EGGS SOLD LAST MONTH



Each  = 100 cartons

4. According to the graph, how many cartons of eggs were sold altogether by farms A, B, and C last month?
- Ⓐ 13
  - Ⓑ 130
  - Ⓒ 1,300
  - Ⓓ 13,000
- Q000701

C Section 3

This part has 9 questions. Mark your answers in your booklet. You will have to fill in an oval or write your answer as directed. In those questions where you must write an answer, it is important that your answer be clear and complete and that you show all of your work since partial credit may be awarded. The last question may require 5 minutes or more to think about and answer. After each question, fill in the oval to indicate whether you used the calculator.

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

AP000533

Did you use the calculator on this question?

- Yes     No

2. A whole number is multiplied by 5. Which of these could be the result?

- Ⓐ 652
- Ⓑ 562
- Ⓒ 526
- Ⓓ 265

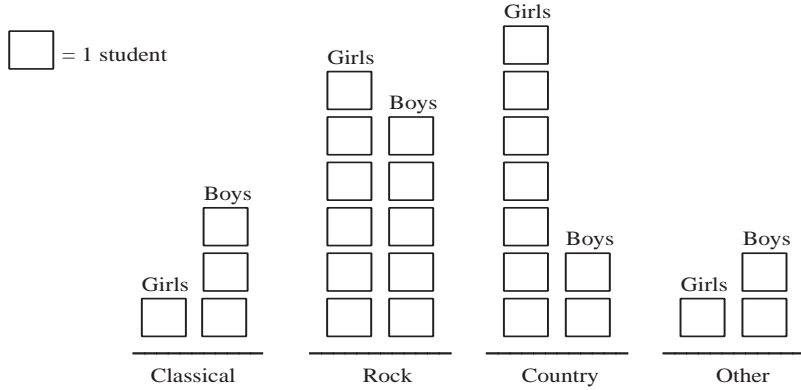
Did you use the calculator on this question?

Yes     No

AP000517



4. Each boy and girl in the class voted for his or her favorite kind of music. Here are the results.



Which kind of music did most students in the class prefer?

- Classical
- Rock
- Country
- Other

AP000554

Did you use the calculator on this question?

- Yes
- No

**Score  
Point**  
1 of 2

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?

AP000522

Did you use the calculator on this question?

Yes    No

## 6 rubric

Item Number: 7 Accession Number: AP000522

Key: None

Classification Codes:

N25M 1 A 04 a PS RECM 02

Open Codes: NA NA NA 3

Rationale Text:

SOLUTION:

For one day the sum is \$1.75. For 5 days, the sum is \$0.75. 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 3, provided method and answer are correct.

### SCORING GUIDE:

- 0 Incorrect response -- includes \$1.75 or \$2: also \$875 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

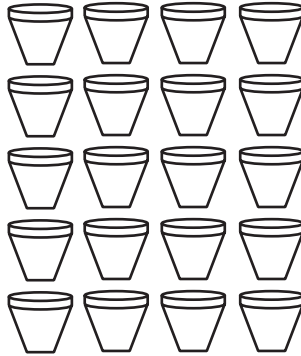
### Student Sample Response

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?  $\$0.75$

Did you use the calculator on this question?

Yes  No

Level:  
Partial (1)



5. The picture shows the flowerpots in which Kevin will plant flower seeds. He needs 3 seeds for each pot. Which of the following number sentences shows how many seeds Kevin will need for all of the pots?

A  $5 \times 4 \times 3 = \square$

B  $(5 \times 4) + 3 = \square$

C  $(5 + 4) \times 3 = \square$

D  $5 + 4 + 3 = \square$

M000502

**Score  
Point  
2 of 2**

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?

AP000522

Did you use the calculator on this question?

Yes    No

## 8 rubric

Item Number: 7 Accession Number: AP000522

Key: None

Classification Codes:

N25M 1 A 04 a PS RECM 02

Open Codes: NA NA NA 3

Rationale Text:

SOLUTION:

For one day the sum is \$1.75. For 5 days, the sum is \$0.75. 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 3, provided method and answer are correct.

### SCORING GUIDE:

0 Incorrect response -- includes \$1.75 or \$2: also \$875 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

## 8 exemplar

### Student Sample Response

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?

$$\begin{array}{r} \$50 \\ +90 \\ -35 \\ \hline \$1.75 \\ \times 5 \\ \hline \$8.75 \end{array}$$

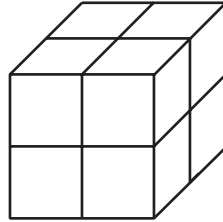
9 dollar bills

Did you use the calculator on this question?

Yes  No

Level:  
Complete (2)





6. In this figure, how many small cubes were put together to form the large cube?

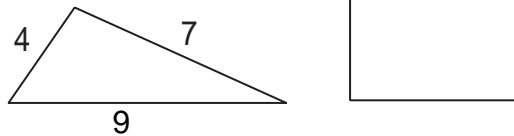
- Ⓐ 7
- Ⓑ 8
- Ⓒ 12
- Ⓓ 24

Y002380

7. Ms. Hernandez formed teams of 8 students each from the 34 students in her class. She formed as many teams as possible, and the students left over were substitutes. How many students were substitutes?

Answer \_\_\_\_\_

Q000702



8. If both the square and the triangle above have the same perimeter, what is the length of each side of the square?

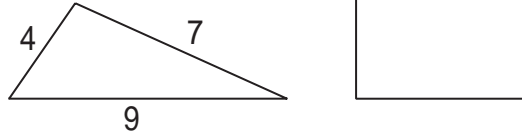
- Ⓐ 4
- Ⓑ 5
- Ⓒ 6
- Ⓓ 7

Q000705

9. There are 3 fifth graders and 2 sixth graders on the swim team. Everyone's name is put in a hat and the captain is chosen by picking one name. What are the chances that the captain will be a fifth grader?

- Ⓐ 1 out of 5
- Ⓑ 1 out of 3
- Ⓒ 3 out of 5
- Ⓓ 2 out of 3

Q000709



8. If both the square and the triangle above have the same perimeter, what is the length of each side of the square?

- Ⓐ 4
- Ⓑ 5
- Ⓒ 6
- Ⓓ 7

Q000705

9. There are 3 fifth graders and 2 sixth graders on the swim team. Everyone's name is put in a hat and the captain is chosen by picking one name. What are the chances that the captain will be a fifth grader?

- Ⓐ 1 out of 5
- Ⓑ 1 out of 3
- Ⓒ 3 out of 5
- Ⓓ 2 out of 3

Q000709

## Check Set Results

(Correct responses are circled.)

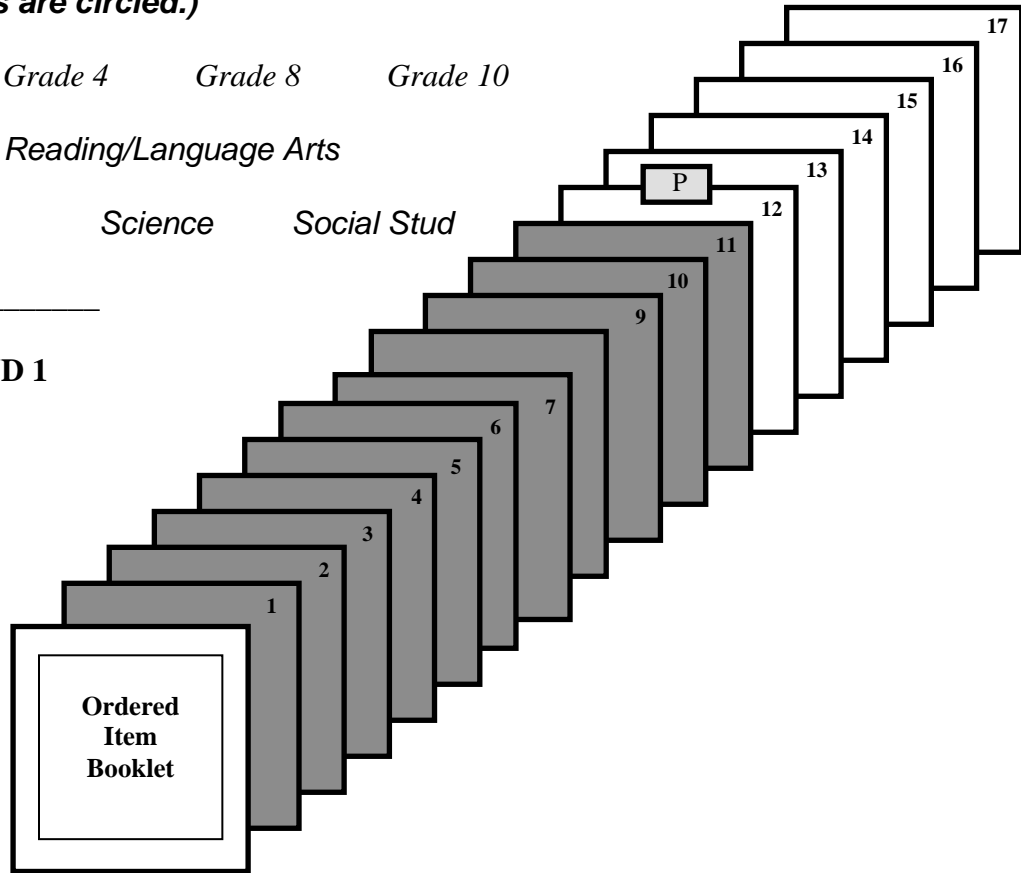
Circle one:      *Grade 4*      *Grade 8*      *Grade 10*

Circle one:      *Reading/Language Arts*

*Mathematics*      *Science*      *Social Stud*

Table: \_\_\_\_\_

Wisconsin      **ROUND 1**



Suppose the bookmark was placed in the sample ordered item booklet as follows:

Name: <u>J. Participant</u>	Table #: <u>1</u>
<i>Proficient Bookmark on Page #</i>	
Round 1	12

1. According to J. Participant, which items does a student need to master to make it into the *Proficient* category?

Items \_\_\_\_ through \_\_\_\_      1-11

2. Suppose a student mastered items 1 through 7. Which proficiency level is this student in? (circle one)

Minimal Performance      Basic      *Proficient*      *Advanced*

Note: Both *Minimal Performance* and *Basic* are acceptable responses to Question 2.

3. Suppose a student mastered items 1 through 11. Which proficiency level is this student in? (circle one)

*Minimal Performance*      *Basic*      Proficient      *Advanced*

4. For students who are classified as *Proficient*, with at least what likelihood will they be able to answer item 8?

$1/3$        $1/2$        $2/3$        $3/4$       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

# Check Set Results

## Reading/Language Arts

Grade 4 (N=21)	
Item #	% Correct
1	100
2	95
3	95
4	90
5	100

Grade 8 (N=18)	
Item #	% Correct
1	100
2	100
3	100
4	100
5	100

Grade 10 (N=16)	
Item #	% Correct
1	94
2	100
3	88
4	100
5	94

## Mathematics

Grade 4 (N=20)	
Item #	% Correct
1	100
2	100
3	100
4	95
5	95

Grade 8 (N=14)	
Item #	% Correct
1	100
2	93
3	100
4	100
5	100

Grade 10 (N=17)	
Item #	% Correct
1	100
2	100
3	100
4	94
5	100

## Science

Grade 4 (N=17)	
Item #	% Correct
1	100
2	100
3	100
4	94
5	100

Grade 8 (N=13)	
Item #	% Correct
1	100
2	92
3	100
4	100
5	100

Grade 10 (N=18)	
Item #	% Correct
1	100
2	83
3	100
4	94
5	94

## Social Studies

Grade 4 (N=16)	
Item #	% Correct
1	100
2	100
3	100
4	94
5	100

Grade 8 (N=19)	
Item #	% Correct
1	100
2	95
3	100
4	89
5	100

Grade 10 (N=15)	
Item #	% Correct
1	100
2	100
3	100
4	100
5	100

## **Section F**

### Participant Evaluation of the Wisconsin Standard Setting

1. Reading, Mathematics, Science, Social Studies

2. Language Arts

Participant Evaluation of the Wisconsin Standard Setting  
Reading, Mathematics, Science, Social Studies

*Note: The evaluation form follows the results (pages F1-18 to F1-20).*



**Wisconsin  
BOOKMARK STANDARD SETTING EVALUATION RESULTS**

**About these results:** each question and its associated instructions will be shown, along with the frequency of responses at each level for the given grade/content areas. For Likert-type scale items, a response of 1 is “Strongly Disagree”, 2 is “Disagree”, 3 is “Neutral,” 4 is “Agree,” and 5 is “Strongly Agree.” **Results for Language groups** are shown in a separate summary.

**PART I: About the Conference**

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. The Bookmark Standard Setting Procedure was well described.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>0.4%</b>	<b>0.9%</b>	<b>4.4%</b>	<b>54.1%</b>	<b>40.2%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>1.7%</b>	<b>48.3%</b>	<b>50.0%</b>
<b>4 Reading</b>	0.0%	0.0%	5.0%	65.0%	30.0%
<b>8 Reading</b>	0.0%	0.0%	0.0%	22.2%	77.8%
<b>10 Reading</b>	0.0%	0.0%	0.0%	55.0%	45.0%
<b>Math Only</b>	<b>0.0%</b>	<b>1.7%</b>	<b>6.9%</b>	<b>60.3%</b>	<b>31.0%</b>
<b>4 Math</b>	0.0%	0.0%	10.0%	65.0%	25.0%
<b>8 Math</b>	0.0%	5.0%	5.0%	60.0%	30.0%
<b>10 Math</b>	0.0%	0.0%	5.6%	55.6%	38.9%
<b>Science</b>	<b>0.0%</b>	<b>1.8%</b>	<b>5.4%</b>	<b>53.6%</b>	<b>39.3%</b>
<b>4 Science</b>	0.0%	0.0%	0.0%	61.1%	38.9%
<b>8 Science</b>	0.0%	0.0%	0.0%	63.2%	36.8%
<b>10 Science</b>	0.0%	5.3%	15.8%	36.8%	42.1%
<b>Social Studies Only</b>	<b>1.8%</b>	<b>0.0%</b>	<b>3.5%</b>	<b>54.4%</b>	<b>40.4%</b>
<b>4 Social Studies</b>	0.0%	0.0%	5.9%	29.4%	64.7%
<b>8 Social Studies</b>	4.5%	0.0%	0.0%	59.1%	36.4%
<b>10 Social Studies</b>	0.0%	0.0%	5.6%	72.2%	22.2%

2. The goals for this procedure were clear.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>0.4%</b>	<b>3.5%</b>	<b>7.0%</b>	<b>52.2%</b>	<b>37.0%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>8.6%</b>	<b>48.3%</b>	<b>43.1%</b>
4 Reading	0.0%	0.0%	25.0%	55.0%	20.0%
8 Reading	0.0%	0.0%	0.0%	33.3%	66.7%
10 Reading	0.0%	0.0%	0.0%	55.0%	45.0%
<b>Math Only</b>	<b>0.0%</b>	<b>8.6%</b>	<b>1.7%</b>	<b>53.4%</b>	<b>36.2%</b>
4 Math	0.0%	10.0%	5.0%	65.0%	20.0%
8 Math	0.0%	10.0%	0.0%	55.0%	35.0%
10 Math	0.0%	5.6%	0.0%	38.9%	55.6%
<b>Science</b>	<b>0.0%</b>	<b>3.6%</b>	<b>8.9%</b>	<b>55.4%</b>	<b>32.1%</b>
4 Science	0.0%	0.0%	5.6%	61.1%	33.3%
8 Science	0.0%	0.0%	10.5%	52.6%	36.8%
10 Science	0.0%	10.5%	10.5%	52.6%	26.3%
<b>Social Studies Only</b>	<b>1.7%</b>	<b>1.7%</b>	<b>8.6%</b>	<b>51.7%</b>	<b>36.2%</b>
4 Social Studies	0.0%	0.0%	5.6%	33.3%	61.1%
8 Social Studies	4.5%	0.0%	9.1%	54.5%	31.8%
10 Social Studies	0.0%	5.6%	11.1%	66.7%	16.7%

3. I felt that this procedure was fair.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>1.3%</b>	<b>5.7%</b>	<b>17.4%</b>	<b>47.0%</b>	<b>28.7%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>21.1%</b>	<b>45.6%</b>	<b>33.3%</b>
4 Reading	0.0%	0.0%	26.3%	47.4%	26.3%
8 Reading	0.0%	0.0%	16.7%	33.3%	50.0%
10 Reading	0.0%	0.0%	20.0%	55.0%	25.0%
<b>Math Only</b>	<b>0.0%</b>	<b>5.1%</b>	<b>6.8%</b>	<b>52.5%</b>	<b>35.6%</b>
4 Math	0.0%	9.5%	4.8%	66.7%	19.0%
8 Math	0.0%	5.0%	10.0%	35.0%	50.0%
10 Math	0.0%	0.0%	5.6%	55.6%	38.9%
<b>Science</b>	<b>3.6%</b>	<b>5.4%</b>	<b>23.2%</b>	<b>42.9%</b>	<b>25.0%</b>
4 Science	5.6%	5.6%	5.6%	38.9%	44.4%
8 Science	0.0%	0.0%	15.8%	73.7%	10.5%
10 Science	5.3%	10.5%	47.4%	15.8%	21.1%
<b>Social Studies Only</b>	<b>1.7%</b>	<b>12.1%</b>	<b>19.0%</b>	<b>46.6%</b>	<b>20.7%</b>
4 Social Studies	0.0%	5.6%	16.7%	44.4%	33.3%
8 Social Studies	4.5%	13.6%	27.3%	36.4%	18.2%
10 Social Studies	0.0%	16.7%	11.1%	61.1%	11.1%

4. Participating in the Bookmark Standard Setting Procedure increased my understanding of the test.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.0%</b>	<b>1.3%</b>	<b>4.3%</b>	<b>24.2%</b>	<b>70.1%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.4%</b>	<b>31.0%</b>	<b>65.5%</b>
4 Reading	0.0%	0.0%	5.0%	45.0%	50.0%
8 Reading	0.0%	0.0%	0.0%	16.7%	83.3%
10 Reading	0.0%	0.0%	5.0%	30.0%	65.0%
<b>Math Only</b>	<b>0.0%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>18.6%</b>	<b>78.0%</b>
4 Math	0.0%	4.8%	0.0%	19.0%	76.2%
8 Math	0.0%	0.0%	0.0%	25.0%	75.0%
10 Math	0.0%	0.0%	5.6%	11.1%	83.3%
<b>Science</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.6%</b>	<b>21.4%</b>	<b>75.0%</b>
4 Science	0.0%	0.0%	5.6%	22.2%	72.2%
8 Science	0.0%	0.0%	0.0%	21.1%	78.9%
10 Science	0.0%	0.0%	5.3%	21.1%	73.7%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>3.4%</b>	<b>8.6%</b>	<b>25.9%</b>	<b>62.1%</b>
4 Social Studies	0.0%	0.0%	11.1%	16.7%	72.2%
8 Social Studies	0.0%	4.5%	0.0%	31.8%	63.6%
10 Social Studies	0.0%	5.6%	16.7%	27.8%	50.0%

5. The conference was well organized.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.4%</b>	<b>2.6%</b>	<b>9.2%</b>	<b>43.9%</b>	<b>43.9%</b>
<b>Reading Only</b>	<b>1.7%</b>	<b>5.2%</b>	<b>17.2%</b>	<b>39.7%</b>	<b>36.2%</b>
4 Reading	0.0%	5.0%	35.0%	45.0%	15.0%
8 Reading	0.0%	0.0%	0.0%	27.8%	72.2%
10 Reading	5.0%	10.0%	15.0%	45.0%	25.0%
<b>Math Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>37.9%</b>	<b>62.1%</b>
4 Math	0.0%	0.0%	0.0%	40.0%	60.0%
8 Math	0.0%	0.0%	0.0%	35.0%	65.0%
10 Math	0.0%	0.0%	0.0%	38.9%	61.1%
<b>Science</b>	<b>0.0%</b>	<b>3.6%</b>	<b>9.1%</b>	<b>41.8%</b>	<b>45.5%</b>
4 Science	0.0%	0.0%	5.6%	44.4%	50.0%
8 Science	0.0%	0.0%	11.1%	38.9%	50.0%
10 Science	0.0%	10.5%	10.5%	42.1%	36.8%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>1.8%</b>	<b>10.5%</b>	<b>56.1%</b>	<b>31.6%</b>
4 Social Studies	0.0%	0.0%	5.6%	50.0%	44.4%
8 Social Studies	0.0%	0.0%	22.7%	50.0%	27.3%
10 Social Studies	0.0%	5.9%	0.0%	70.6%	23.5%

6. The training materials were helpful.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.0%</b>	<b>0.4%</b>	<b>5.2%</b>	<b>60.6%</b>	<b>33.8%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>6.9%</b>	<b>58.6%</b>	<b>34.5%</b>
4 Reading	0.0%	0.0%	0.0%	80.0%	20.0%
8 Reading	0.0%	0.0%	0.0%	38.9%	61.1%
10 Reading	0.0%	0.0%	20.0%	55.0%	25.0%
<b>Math Only</b>	<b>0.0%</b>	<b>1.7%</b>	<b>3.4%</b>	<b>74.6%</b>	<b>20.3%</b>
4 Math	0.0%	0.0%	0.0%	95.2%	4.8%
8 Math	0.0%	5.0%	5.0%	60.0%	30.0%
10 Math	0.0%	0.0%	5.6%	66.7%	27.8%
<b>Science</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.6%</b>	<b>60.7%</b>	<b>35.7%</b>
4 Science	0.0%	0.0%	5.6%	55.6%	38.9%
8 Science	0.0%	0.0%	0.0%	68.4%	31.6%
10 Science	0.0%	0.0%	5.3%	57.9%	36.8%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>6.9%</b>	<b>48.3%</b>	<b>44.8%</b>
4 Social Studies	0.0%	0.0%	0.0%	50.0%	50.0%
8 Social Studies	0.0%	0.0%	13.6%	36.4%	50.0%
10 Social Studies	0.0%	0.0%	5.6%	61.1%	33.3%

7. The training on Bookmark placement made the task clear to me.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.0%</b>	<b>1.3%</b>	<b>6.1%</b>	<b>52.4%</b>	<b>40.2%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>5.2%</b>	<b>48.3%</b>	<b>46.6%</b>
4 Reading	0.0%	0.0%	10.0%	65.0%	25.0%
8 Reading	0.0%	0.0%	0.0%	22.2%	77.8%
10 Reading	0.0%	0.0%	5.0%	55.0%	40.0%
<b>Math Only</b>	<b>0.0%</b>	<b>1.7%</b>	<b>6.8%</b>	<b>64.4%</b>	<b>27.1%</b>
4 Math	0.0%	0.0%	14.3%	57.1%	28.6%
8 Math	0.0%	5.0%	5.0%	65.0%	25.0%
10 Math	0.0%	0.0%	0.0%	72.2%	27.8%
<b>Science</b>	<b>0.0%</b>	<b>1.8%</b>	<b>7.1%</b>	<b>50.0%</b>	<b>41.1%</b>
4 Science	0.0%	5.6%	0.0%	55.6%	38.9%
8 Science	0.0%	0.0%	10.5%	47.4%	42.1%
10 Science	0.0%	0.0%	10.5%	47.4%	42.1%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>1.8%</b>	<b>5.4%</b>	<b>46.4%</b>	<b>46.4%</b>
4 Social Studies	0.0%	0.0%	5.6%	33.3%	61.1%
8 Social Studies	0.0%	0.0%	9.1%	45.5%	45.5%
10 Social Studies	0.0%	6.3%	0.0%	62.5%	31.3%

8. Reviewing the Target Student helped me place my bookmarks.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.9%</b>	<b>4.4%</b>	<b>17.9%</b>	<b>48.0%</b>	<b>28.8%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>6.9%</b>	<b>15.5%</b>	<b>34.5%</b>	<b>43.1%</b>
4 Reading	0.0%	0.0%	10.0%	60.0%	30.0%
8 Reading	0.0%	0.0%	5.6%	27.8%	66.7%
10 Reading	0.0%	20.0%	30.0%	15.0%	35.0%
<b>Math Only</b>	<b>1.7%</b>	<b>5.2%</b>	<b>12.1%</b>	<b>56.9%</b>	<b>24.1%</b>
4 Math	0.0%	0.0%	15.0%	70.0%	15.0%
8 Math	0.0%	5.0%	15.0%	50.0%	30.0%
10 Math	5.6%	11.1%	5.6%	50.0%	27.8%
<b>Science</b>	<b>1.8%</b>	<b>3.6%</b>	<b>19.6%</b>	<b>48.2%</b>	<b>26.8%</b>
4 Science	0.0%	5.6%	16.7%	44.4%	33.3%
8 Science	0.0%	0.0%	21.1%	52.6%	26.3%
10 Science	5.3%	5.3%	21.1%	47.4%	21.1%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>1.8%</b>	<b>24.6%</b>	<b>52.6%</b>	<b>21.1%</b>
4 Social Studies	0.0%	0.0%	16.7%	61.1%	22.2%
8 Social Studies	0.0%	4.8%	19.0%	57.1%	19.0%
10 Social Studies	0.0%	0.0%	38.9%	38.9%	22.2%

9. Taking the test helped me place my bookmarks.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.0%</b>	<b>5.2%</b>	<b>16.0%</b>	<b>35.1%</b>	<b>43.7%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>5.2%</b>	<b>19.0%</b>	<b>36.2%</b>	<b>39.7%</b>
4 Reading	0.0%	10.0%	25.0%	40.0%	25.0%
8 Reading	0.0%	5.6%	16.7%	22.2%	55.6%
10 Reading	0.0%	0.0%	15.0%	45.0%	40.0%
<b>Math Only</b>	<b>0.0%</b>	<b>6.8%</b>	<b>11.9%</b>	<b>30.5%</b>	<b>50.8%</b>
4 Math	0.0%	9.5%	9.5%	33.3%	47.6%
8 Math	0.0%	0.0%	10.0%	30.0%	60.0%
10 Math	0.0%	11.1%	16.7%	27.8%	44.4%
<b>Science</b>	<b>0.0%</b>	<b>5.4%</b>	<b>17.9%</b>	<b>25.0%</b>	<b>51.8%</b>
4 Science	0.0%	11.1%	27.8%	27.8%	33.3%
8 Science	0.0%	0.0%	15.8%	21.1%	63.2%
10 Science	0.0%	5.3%	10.5%	26.3%	57.9%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>3.4%</b>	<b>15.5%</b>	<b>48.3%</b>	<b>32.8%</b>
4 Social Studies	0.0%	5.6%	27.8%	50.0%	16.7%
8 Social Studies	0.0%	0.0%	4.5%	59.1%	36.4%
10 Social Studies	0.0%	5.6%	16.7%	33.3%	44.4%

10. During Round 1, I placed my bookmarks without consulting other participants.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>1.7%</b>	<b>1.3%</b>	<b>2.6%</b>	<b>17.5%</b>	<b>76.9%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>1.8%</b>	<b>0.0%</b>	<b>26.3%</b>	<b>71.9%</b>
4 Reading	0.0%	5.3%	0.0%	31.6%	63.2%
8 Reading	0.0%	0.0%	0.0%	16.7%	83.3%
10 Reading	0.0%	0.0%	0.0%	30.0%	70.0%
<b>Math Only</b>	<b>5.2%</b>	<b>0.0%</b>	<b>3.4%</b>	<b>15.5%</b>	<b>75.9%</b>
4 Math	9.5%	0.0%	4.8%	19.0%	66.7%
8 Math	5.3%	0.0%	5.3%	10.5%	78.9%
10 Math	0.0%	0.0%	0.0%	16.7%	83.3%
<b>Science</b>	<b>0.0%</b>	<b>3.6%</b>	<b>1.8%</b>	<b>12.5%</b>	<b>82.1%</b>
4 Science	0.0%	0.0%	0.0%	11.1%	88.9%
8 Science	0.0%	5.3%	0.0%	10.5%	84.2%
10 Science	0.0%	5.3%	5.3%	15.8%	73.7%
<b>Social Studies Only</b>	<b>1.7%</b>	<b>0.0%</b>	<b>5.2%</b>	<b>15.5%</b>	<b>77.6%</b>
4 Social Studies	5.6%	0.0%	0.0%	16.7%	77.8%
8 Social Studies	0.0%	0.0%	13.6%	18.2%	68.2%
10 Social Studies	0.0%	0.0%	0.0%	11.1%	88.9%

11. I understood how to place my bookmark.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.0%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>29.0%</b>	<b>65.8%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>1.7%</b>	<b>27.6%</b>	<b>70.7%</b>
4 Reading	0.0%	0.0%	0.0%	45.0%	55.0%
8 Reading	0.0%	0.0%	5.6%	11.1%	83.3%
10 Reading	0.0%	0.0%	0.0%	25.0%	75.0%
<b>Math Only</b>	<b>0.0%</b>	<b>3.4%</b>	<b>5.1%</b>	<b>37.3%</b>	<b>54.2%</b>
4 Math	0.0%	4.8%	4.8%	57.1%	33.3%
8 Math	0.0%	5.0%	10.0%	15.0%	70.0%
10 Math	0.0%	0.0%	0.0%	38.9%	61.1%
<b>Science</b>	<b>0.0%</b>	<b>3.6%</b>	<b>0.0%</b>	<b>28.6%</b>	<b>67.9%</b>
4 Science	0.0%	0.0%	0.0%	50.0%	50.0%
8 Science	0.0%	0.0%	0.0%	21.1%	78.9%
10 Science	0.0%	10.5%	0.0%	15.8%	73.7%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>3.4%</b>	<b>3.4%</b>	<b>22.4%</b>	<b>70.7%</b>
4 Social Studies	0.0%	0.0%	0.0%	27.8%	72.2%
8 Social Studies	0.0%	4.5%	4.5%	18.2%	72.7%
10 Social Studies	0.0%	5.6%	5.6%	22.2%	66.7%

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.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>26.8%</b>	<b>26.8%</b>	<b>12.7%</b>	<b>19.7%</b>	<b>14.0%</b>
<b>Reading Only</b>	<b>32.1%</b>	<b>30.4%</b>	<b>8.9%</b>	<b>16.1%</b>	<b>12.5%</b>
4 Reading	25.0%	40.0%	5.0%	20.0%	10.0%
8 Reading	43.8%	25.0%	6.3%	6.3%	18.8%
10 Reading	30.0%	25.0%	15.0%	20.0%	10.0%
<b>Math Only</b>	<b>20.7%</b>	<b>27.6%</b>	<b>19.0%</b>	<b>17.2%</b>	<b>15.5%</b>
4 Math	15.0%	30.0%	25.0%	20.0%	10.0%
8 Math	40.0%	10.0%	20.0%	15.0%	15.0%
10 Math	5.6%	44.4%	11.1%	16.7%	22.2%
<b>Science</b>	<b>30.4%</b>	<b>16.1%</b>	<b>14.3%</b>	<b>21.4%</b>	<b>17.9%</b>
4 Science	22.2%	11.1%	16.7%	27.8%	22.2%
8 Science	26.3%	21.1%	21.1%	15.8%	15.8%
10 Science	42.1%	15.8%	5.3%	21.1%	15.8%
<b>Social Studies Only</b>	<b>24.1%</b>	<b>32.8%</b>	<b>8.6%</b>	<b>24.1%</b>	<b>10.3%</b>
4 Social Studies	16.7%	44.4%	5.6%	22.2%	11.1%
8 Social Studies	27.3%	40.9%	4.5%	22.7%	4.5%
10 Social Studies	27.8%	11.1%	16.7%	27.8%	16.7%

13. Overall, I was satisfied with my group's final bookmarks.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>2.7%</b>	<b>6.4%</b>	<b>13.2%</b>	<b>46.1%</b>	<b>31.5%</b>
<b>Reading Only</b>	<b>3.7%</b>	<b>3.7%</b>	<b>11.1%</b>	<b>46.3%</b>	<b>35.2%</b>
4 Reading	0.0%	0.0%	10.0%	50.0%	40.0%
8 Reading	6.7%	13.3%	6.7%	53.3%	20.0%
10 Reading	5.3%	0.0%	15.8%	36.8%	42.1%
<b>Math Only</b>	<b>3.6%</b>	<b>5.4%</b>	<b>8.9%</b>	<b>44.6%</b>	<b>37.5%</b>
4 Math	5.3%	5.3%	10.5%	57.9%	21.1%
8 Math	5.3%	10.5%	15.8%	42.1%	26.3%
10 Math	0.0%	0.0%	0.0%	33.3%	66.7%
<b>Science</b>	<b>1.8%</b>	<b>12.5%</b>	<b>16.1%</b>	<b>39.3%</b>	<b>30.4%</b>
4 Science	5.6%	22.2%	0.0%	27.8%	44.4%
8 Science	0.0%	5.3%	5.3%	57.9%	31.6%
10 Science	0.0%	10.5%	42.1%	31.6%	15.8%
<b>Social Studies Only</b>	<b>1.9%</b>	<b>3.8%</b>	<b>17.0%</b>	<b>54.7%</b>	<b>22.6%</b>
4 Social Studies	0.0%	0.0%	17.6%	64.7%	17.6%
8 Social Studies	0.0%	10.0%	15.0%	50.0%	25.0%
10 Social Studies	6.3%	0.0%	18.8%	50.0%	25.0%

14. I would defend the cut scores against criticism that they were too high.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>5.8%</b>	<b>6.7%</b>	<b>14.8%</b>	<b>35.9%</b>	<b>36.8%</b>
<b>Reading Only</b>	<b>9.1%</b>	<b>5.5%</b>	<b>12.7%</b>	<b>25.5%</b>	<b>47.3%</b>
4 Reading	10.0%	5.0%	15.0%	30.0%	40.0%
8 Reading	13.3%	13.3%	13.3%	20.0%	40.0%
10 Reading	5.0%	0.0%	10.0%	25.0%	60.0%
<b>Math Only</b>	<b>7.0%</b>	<b>3.5%</b>	<b>15.8%</b>	<b>40.4%</b>	<b>33.3%</b>
4 Math	10.5%	0.0%	10.5%	52.6%	26.3%
8 Math	10.0%	10.0%	25.0%	30.0%	25.0%
10 Math	0.0%	0.0%	11.1%	38.9%	50.0%
<b>Science</b>	<b>3.6%</b>	<b>8.9%</b>	<b>16.1%</b>	<b>39.3%</b>	<b>32.1%</b>
4 Science	0.0%	22.2%	22.2%	27.8%	27.8%
8 Science	0.0%	5.3%	0.0%	57.9%	36.8%
10 Science	10.5%	0.0%	26.3%	31.6%	31.6%
<b>Social Studies Only</b>	<b>3.6%</b>	<b>9.1%</b>	<b>14.5%</b>	<b>38.2%</b>	<b>34.5%</b>
4 Social Studies	5.6%	11.1%	16.7%	50.0%	16.7%
8 Social Studies	4.8%	9.5%	14.3%	28.6%	42.9%
10 Social Studies	0.0%	6.3%	12.5%	37.5%	43.8%

15. I would defend the cut scores against criticism that they were too low.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>3.6%</b>	<b>6.3%</b>	<b>12.7%</b>	<b>35.7%</b>	<b>41.6%</b>
<b>Reading Only</b>	<b>5.5%</b>	<b>9.1%</b>	<b>5.5%</b>	<b>29.1%</b>	<b>50.9%</b>
4 Reading	10.0%	10.0%	5.0%	35.0%	40.0%
8 Reading	6.7%	13.3%	0.0%	26.7%	53.3%
10 Reading	0.0%	5.0%	10.0%	25.0%	60.0%
<b>Math Only</b>	<b>1.8%</b>	<b>3.5%</b>	<b>14.0%</b>	<b>43.9%</b>	<b>36.8%</b>
4 Math	5.3%	5.3%	10.5%	63.2%	15.8%
8 Math	0.0%	5.0%	20.0%	35.0%	40.0%
10 Math	0.0%	0.0%	11.1%	33.3%	55.6%
<b>Science</b>	<b>7.3%</b>	<b>10.9%</b>	<b>18.2%</b>	<b>25.5%</b>	<b>38.2%</b>
4 Science	0.0%	16.7%	11.1%	22.2%	50.0%
8 Science	5.6%	11.1%	0.0%	50.0%	33.3%
10 Science	15.8%	5.3%	42.1%	5.3%	31.6%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>1.9%</b>	<b>13.0%</b>	<b>44.4%</b>	<b>40.7%</b>
4 Social Studies	0.0%	0.0%	27.8%	44.4%	27.8%
8 Social Studies	0.0%	0.0%	5.0%	45.0%	50.0%
10 Social Studies	0.0%	6.3%	6.3%	43.8%	43.8%



16. I considered the Content Standards when I placed my bookmarks.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>0.9%</b>	<b>2.6%</b>	<b>7.8%</b>	<b>45.7%</b>	<b>43.0%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>5.2%</b>	<b>48.3%</b>	<b>46.6%</b>
4 Reading	0.0%	0.0%	10.0%	40.0%	50.0%
8 Reading	0.0%	0.0%	0.0%	55.6%	44.4%
10 Reading	0.0%	0.0%	5.0%	50.0%	45.0%
<b>Math Only</b>	<b>1.7%</b>	<b>0.0%</b>	<b>3.4%</b>	<b>44.1%</b>	<b>50.8%</b>
4 Math	0.0%	0.0%	4.8%	66.7%	28.6%
8 Math	0.0%	0.0%	5.0%	30.0%	65.0%
10 Math	5.6%	0.0%	0.0%	33.3%	61.1%
<b>Science</b>	<b>1.8%</b>	<b>5.4%</b>	<b>14.3%</b>	<b>42.9%</b>	<b>35.7%</b>
4 Science	0.0%	11.1%	11.1%	22.2%	55.6%
8 Science	5.3%	0.0%	21.1%	42.1%	31.6%
10 Science	0.0%	5.3%	10.5%	63.2%	21.1%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>5.3%</b>	<b>8.8%</b>	<b>47.4%</b>	<b>38.6%</b>
4 Social Studies	0.0%	16.7%	5.6%	50.0%	27.8%
8 Social Studies	0.0%	0.0%	0.0%	45.5%	54.5%
10 Social Studies	0.0%	0.0%	23.5%	47.1%	29.4%

17. Overall, I believe that my opinions were considered and valued by my group.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>0.4%</b>	<b>1.3%</b>	<b>4.3%</b>	<b>42.0%</b>	<b>51.9%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.4%</b>	<b>36.2%</b>	<b>60.3%</b>
4 Reading	0.0%	0.0%	0.0%	40.0%	60.0%
8 Reading	0.0%	0.0%	5.6%	33.3%	61.1%
10 Reading	0.0%	0.0%	5.0%	35.0%	60.0%
<b>Math Only</b>	<b>0.0%</b>	<b>1.7%</b>	<b>5.1%</b>	<b>44.1%</b>	<b>49.2%</b>
4 Math	0.0%	0.0%	9.5%	38.1%	52.4%
8 Math	0.0%	5.0%	5.0%	55.0%	35.0%
10 Math	0.0%	0.0%	0.0%	38.9%	61.1%
<b>Science</b>	<b>1.8%</b>	<b>1.8%</b>	<b>7.1%</b>	<b>39.3%</b>	<b>50.0%</b>
4 Science	0.0%	0.0%	0.0%	38.9%	61.1%
8 Science	0.0%	0.0%	10.5%	26.3%	63.2%
10 Science	5.3%	5.3%	10.5%	52.6%	26.3%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>48.3%</b>	<b>48.3%</b>
4 Social Studies	0.0%	0.0%	0.0%	50.0%	50.0%
8 Social Studies	0.0%	0.0%	0.0%	45.5%	54.5%
10 Social Studies	0.0%	5.6%	5.6%	50.0%	38.9%

18. I am confident that the Bookmark Procedure produced valid standards.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>3.1%</b>	<b>3.5%</b>	<b>21.7%</b>	<b>47.8%</b>	<b>23.9%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>3.5%</b>	<b>19.3%</b>	<b>47.4%</b>	<b>29.8%</b>
4 Reading	0.0%	0.0%	25.0%	40.0%	35.0%
8 Reading	0.0%	0.0%	11.8%	58.8%	29.4%
10 Reading	0.0%	10.0%	20.0%	45.0%	25.0%
<b>Math Only</b>	<b>1.7%</b>	<b>3.4%</b>	<b>13.8%</b>	<b>53.4%</b>	<b>27.6%</b>
4 Math	5.0%	5.0%	10.0%	70.0%	10.0%
8 Math	0.0%	5.0%	15.0%	40.0%	40.0%
10 Math	0.0%	0.0%	16.7%	50.0%	33.3%
<b>Science</b>	<b>7.3%</b>	<b>3.6%</b>	<b>32.7%</b>	<b>41.8%</b>	<b>14.5%</b>
4 Science	5.9%	0.0%	29.4%	47.1%	17.6%
8 Science	0.0%	0.0%	15.8%	57.9%	26.3%
10 Science	15.8%	10.5%	52.6%	21.1%	0.0%
<b>Social Studies Only</b>	<b>3.6%</b>	<b>3.6%</b>	<b>21.4%</b>	<b>48.2%</b>	<b>23.2%</b>
4 Social Studies	0.0%	5.6%	0.0%	72.2%	22.2%
8 Social Studies	4.8%	0.0%	28.6%	42.9%	23.8%
10 Social Studies	5.9%	5.9%	35.3%	29.4%	23.5%

19. The ordering of the items in the ordered item booklet agreed with my perception of the relative difficulty of the items.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>3.5%</b>	<b>24.3%</b>	<b>21.2%</b>	<b>45.1%</b>	<b>5.8%</b>
<b>Reading Only</b>	<b>3.5%</b>	<b>10.5%</b>	<b>21.1%</b>	<b>57.9%</b>	<b>7.0%</b>
4 Reading	0.0%	0.0%	15.8%	63.2%	21.1%
8 Reading	11.1%	16.7%	16.7%	55.6%	0.0%
10 Reading	0.0%	15.0%	30.0%	55.0%	0.0%
<b>Math Only</b>	<b>5.2%</b>	<b>24.1%</b>	<b>25.9%</b>	<b>43.1%</b>	<b>1.7%</b>
4 Math	0.0%	25.0%	25.0%	45.0%	5.0%
8 Math	10.0%	20.0%	20.0%	50.0%	0.0%
10 Math	5.6%	27.8%	33.3%	33.3%	0.0%
<b>Science</b>	<b>1.8%</b>	<b>40.0%</b>	<b>16.4%</b>	<b>38.2%</b>	<b>3.6%</b>
4 Science	5.9%	23.5%	11.8%	52.9%	5.9%
8 Science	0.0%	36.8%	21.1%	36.8%	5.3%
10 Science	0.0%	57.9%	15.8%	26.3%	0.0%
<b>Social Studies Only</b>	<b>3.6%</b>	<b>23.2%</b>	<b>21.4%</b>	<b>41.1%</b>	<b>10.7%</b>
4 Social Studies	5.9%	17.6%	29.4%	41.2%	5.9%
8 Social Studies	4.8%	38.1%	19.0%	23.8%	14.3%
10 Social Studies	0.0%	11.1%	16.7%	61.1%	11.1%

20. Overall, my table's discussions were open and honest.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.0%</b>	<b>0.9%</b>	<b>2.2%</b>	<b>21.6%</b>	<b>75.3%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>27.6%</b>	<b>72.4%</b>
4 Reading	0.0%	0.0%	0.0%	30.0%	70.0%
8 Reading	0.0%	0.0%	0.0%	27.8%	72.2%
10 Reading	0.0%	0.0%	0.0%	25.0%	75.0%
<b>Math Only</b>	<b>0.0%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>23.7%</b>	<b>72.9%</b>
4 Math	0.0%	0.0%	0.0%	23.8%	76.2%
8 Math	0.0%	5.0%	5.0%	25.0%	65.0%
10 Math	0.0%	0.0%	0.0%	22.2%	77.8%
<b>Science</b>	<b>0.0%</b>	<b>0.0%</b>	<b>5.4%</b>	<b>21.4%</b>	<b>73.2%</b>
4 Science	0.0%	0.0%	5.6%	16.7%	77.8%
8 Science	0.0%	0.0%	10.5%	21.1%	68.4%
10 Science	0.0%	0.0%	0.0%	26.3%	73.7%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>13.8%</b>	<b>82.8%</b>
4 Social Studies	0.0%	0.0%	5.6%	11.1%	83.3%
8 Social Studies	0.0%	0.0%	0.0%	4.5%	95.5%
10 Social Studies	0.0%	5.6%	0.0%	27.8%	66.7%

21. The presentation of different types of impact data was helpful to me.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>1.8%</b>	<b>3.5%</b>	<b>12.3%</b>	<b>43.6%</b>	<b>38.8%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>13.8%</b>	<b>44.8%</b>	<b>41.4%</b>
4 Reading	0.0%	0.0%	15.0%	40.0%	45.0%
8 Reading	0.0%	0.0%	5.6%	55.6%	38.9%
10 Reading	0.0%	0.0%	20.0%	40.0%	40.0%
<b>Math Only</b>	<b>3.4%</b>	<b>3.4%</b>	<b>12.1%</b>	<b>41.4%</b>	<b>39.7%</b>
4 Math	0.0%	0.0%	10.0%	55.0%	35.0%
8 Math	0.0%	10.0%	5.0%	25.0%	60.0%
10 Math	11.1%	0.0%	22.2%	44.4%	22.2%
<b>Science</b>	<b>1.9%</b>	<b>3.7%</b>	<b>13.0%</b>	<b>48.1%</b>	<b>33.3%</b>
4 Science	0.0%	5.9%	29.4%	23.5%	41.2%
8 Science	0.0%	0.0%	0.0%	52.6%	47.4%
10 Science	5.6%	5.6%	11.1%	66.7%	11.1%
<b>Social Studies Only</b>	<b>1.8%</b>	<b>7.0%</b>	<b>10.5%</b>	<b>40.4%</b>	<b>40.4%</b>
4 Social Studies	0.0%	0.0%	17.6%	47.1%	35.3%
8 Social Studies	0.0%	9.1%	4.5%	27.3%	59.1%
10 Social Studies	5.6%	11.1%	11.1%	50.0%	22.2%

22. Overall, I valued the conference as a professional development experience.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.4%</b>	<b>0.0%</b>	<b>0.9%</b>	<b>24.2%</b>	<b>74.5%</b>
<b>Reading Only</b>	<b>1.7%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>27.6%</b>	<b>70.7%</b>
4 Reading	5.0%	0.0%	0.0%	30.0%	65.0%
8 Reading	0.0%	0.0%	0.0%	16.7%	83.3%
10 Reading	0.0%	0.0%	0.0%	35.0%	65.0%
<b>Math Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.4%</b>	<b>13.6%</b>	<b>83.1%</b>
4 Math	0.0%	0.0%	4.8%	14.3%	81.0%
8 Math	0.0%	0.0%	0.0%	10.0%	90.0%
10 Math	0.0%	0.0%	5.6%	16.7%	77.8%
<b>Science</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>26.8%</b>	<b>73.2%</b>
4 Science	0.0%	0.0%	0.0%	22.2%	77.8%
8 Science	0.0%	0.0%	0.0%	31.6%	68.4%
10 Science	0.0%	0.0%	0.0%	26.3%	73.7%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>29.3%</b>	<b>70.7%</b>
4 Social Studies	0.0%	0.0%	0.0%	16.7%	83.3%
8 Social Studies	0.0%	0.0%	0.0%	18.2%	81.8%
10 Social Studies	0.0%	0.0%	0.0%	55.6%	44.4%

23. This experience will help me target instruction for the students in my classroom.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>1.8%</b>	<b>2.7%</b>	<b>13.3%</b>	<b>32.3%</b>	<b>50.0%</b>
<b>Reading Only</b>	<b>3.4%</b>	<b>0.0%</b>	<b>19.0%</b>	<b>22.4%</b>	<b>55.2%</b>
4 Reading	10.0%	0.0%	30.0%	20.0%	40.0%
8 Reading	0.0%	0.0%	5.6%	22.2%	72.2%
10 Reading	0.0%	0.0%	20.0%	25.0%	55.0%
<b>Math Only</b>	<b>3.5%</b>	<b>1.8%</b>	<b>7.0%</b>	<b>33.3%</b>	<b>54.4%</b>
4 Math	0.0%	0.0%	15.0%	40.0%	45.0%
8 Math	0.0%	5.3%	5.3%	21.1%	68.4%
10 Math	11.1%	0.0%	0.0%	38.9%	50.0%
<b>Science</b>	<b>0.0%</b>	<b>3.8%</b>	<b>17.0%</b>	<b>34.0%</b>	<b>45.3%</b>
4 Science	0.0%	0.0%	16.7%	38.9%	44.4%
8 Science	0.0%	5.9%	17.6%	11.8%	64.7%
10 Science	0.0%	5.6%	16.7%	50.0%	27.8%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>5.2%</b>	<b>10.3%</b>	<b>39.7%</b>	<b>44.8%</b>
4 Social Studies	0.0%	0.0%	11.1%	38.9%	50.0%
8 Social Studies	0.0%	4.5%	4.5%	45.5%	45.5%
10 Social Studies	0.0%	11.1%	16.7%	33.3%	38.9%

**PART II: About You**

**About these results:** all information is self-reported by participants.

**24. What is your occupation?**

	<b>Classroom Teacher</b>	<b>Education (Non-Teacher)</b>	<b>Non-Education Professional</b>
<b>All Respondents</b>	<b>71.9%</b>	<b>25.0%</b>	<b>3.1%</b>
<b>Reading Only</b>	<b>67.2%</b>	<b>31.0%</b>	<b>1.7%</b>
4 Reading	70.0%	30.0%	0.0%
8 Reading	55.6%	44.4%	0.0%
10 Reading	75.0%	20.0%	5.0%
<b>Math Only</b>	<b>74.6%</b>	<b>23.7%</b>	<b>1.7%</b>
4 Math	71.4%	28.6%	0.0%
8 Math	75.0%	25.0%	0.0%
10 Math	77.8%	16.7%	5.6%
<b>Science</b>	<b>72.2%</b>	<b>22.2%</b>	<b>5.6%</b>
4 Science	66.7%	27.8%	5.6%
8 Science	76.5%	17.6%	5.9%
10 Science	73.7%	21.1%	5.3%
<b>Social Studies Only</b>	<b>73.7%</b>	<b>22.8%</b>	<b>3.5%</b>
4 Social Studies	64.7%	29.4%	5.9%
8 Social Studies	77.3%	22.7%	0.0%
10 Social Studies	77.8%	16.7%	5.6%

**25. If you are a classroom teacher, what grade(s) do you teach?**

	<b>Average</b>	<b>Standard Deviation</b>
<b>All Respondents</b>	<b>7.18</b>	<b>2.84</b>
<b>Reading Only</b>	<b>6.86</b>	<b>2.87</b>
4 Reading	3.93	0.80
8 Reading	7.00	1.65
10 Reading	9.67	1.91
<b>Math Only</b>	<b>6.77</b>	<b>2.72</b>
4 Math	3.71	0.91
8 Math	6.73	1.33
10 Math	9.67	1.35
<b>Science</b>	<b>7.93</b>	<b>2.69</b>
4 Science	4.67	1.56
8 Science	8.06	1.65
10 Science	10.57	0.51
<b>Social Studies Only</b>	<b>7.20</b>	<b>3.03</b>
4 Social Studies	3.15	0.99
8 Social Studies	7.50	0.79
10 Social Studies	10.57	0.76

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

	Average	Standard Deviation
<b>All Respondents</b>	<b>15.70</b>	<b>9.80</b>
<b>Reading Only</b>	<b>15.61</b>	<b>10.34</b>
4 Reading	18.05	10.85
8 Reading	13.17	10.71
10 Reading	15.37	9.36
<b>Math Only</b>	<b>16.58</b>	<b>10.37</b>
4 Math	15.24	10.02
8 Math	16.05	11.33
10 Math	18.72	9.90
<b>Science</b>	<b>14.93</b>	<b>8.89</b>
4 Science	15.67	10.56
8 Science	14.42	8.04
10 Science	14.74	8.41
<b>Social Studies Only</b>	<b>15.65</b>	<b>9.68</b>
4 Social Studies	15.22	11.14
8 Social Studies	14.32	8.96
10 Social Studies	17.82	9.09

27. Which content area did you work on during this standard setting?

	Reading	Math	Science	SS
<b>All Respondents</b>	<b>25.1%</b>	<b>25.5%</b>	<b>24.2%</b>	<b>25.1%</b>
<b>Reading Only</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
4 Reading	100.0%	0.0%	0.0%	0.0%
8 Reading	100.0%	0.0%	0.0%	0.0%
10 Reading	100.0%	0.0%	0.0%	0.0%
<b>Math Only</b>	<b>0.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>
4 Math	0.0%	100.0%	0.0%	0.0%
8 Math	0.0%	100.0%	0.0%	0.0%
10 Math	0.0%	100.0%	0.0%	0.0%
<b>Science</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>	<b>0.0%</b>
4 Science	0.0%	0.0%	100.0%	0.0%
8 Science	0.0%	0.0%	100.0%	0.0%
10 Science	0.0%	0.0%	100.0%	0.0%
<b>Social Studies Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>
4 Social Studies	0.0%	0.0%	0.0%	100.0%
8 Social Studies	0.0%	0.0%	0.0%	100.0%
10 Social Studies	0.0%	0.0%	0.0%	100.0%

28. Which grade did you work on during this standard setting?

	<b>4</b>	<b>8</b>	<b>10</b>
<b>All Respondents</b>	<b>32.9%</b>	<b>34.6%</b>	<b>32.0%</b>
<b>Reading Only</b>	<b>34.5%</b>	<b>32.8%</b>	<b>32.8%</b>
4 Reading	100.0%	0.0%	0.0%
8 Reading	0.0%	100.0%	0.0%
10 Reading	0.0%	5.0%	95.0%
<b>Math Only</b>	<b>35.6%</b>	<b>33.9%</b>	<b>30.5%</b>
4 Math	100.0%	0.0%	0.0%
8 Math	0.0%	100.0%	0.0%
10 Math	0.0%	0.0%	100.0%
<b>Science</b>	<b>32.1%</b>	<b>33.9%</b>	<b>33.9%</b>
4 Science	100.0%	0.0%	0.0%
8 Science	0.0%	100.0%	0.0%
10 Science	0.0%	0.0%	100.0%
<b>Social Studies Only</b>	<b>31.0%</b>	<b>37.9%</b>	<b>31.0%</b>
4 Social Studies	100.0%	0.0%	0.0%
8 Social Studies	0.0%	100.0%	0.0%
10 Social Studies	0.0%	0.0%	100.0%

29. What is your education level?

	<b>Bachelor's</b>	<b>Master's</b>	<b>Doctorate</b>
<b>All Respondents</b>	<b>21.4%</b>	<b>72.5%</b>	<b>6.1%</b>
<b>Reading Only</b>	<b>21.1%</b>	<b>71.9%</b>	<b>7.0%</b>
4 Reading	15.0%	80.0%	5.0%
8 Reading	16.7%	83.3%	0.0%
10 Reading	31.6%	52.6%	15.8%
<b>Math Only</b>	<b>28.8%</b>	<b>64.4%</b>	<b>6.8%</b>
4 Math	9.5%	85.7%	4.8%
8 Math	55.0%	40.0%	5.0%
10 Math	22.2%	66.7%	11.1%
<b>Science</b>	<b>18.2%</b>	<b>74.5%</b>	<b>7.3%</b>
4 Science	27.8%	66.7%	5.6%
8 Science	16.7%	77.8%	5.6%
10 Science	10.5%	78.9%	10.5%
<b>Social Studies Only</b>	<b>17.2%</b>	<b>79.3%</b>	<b>3.4%</b>
4 Social Studies	22.2%	77.8%	0.0%
8 Social Studies	13.6%	81.8%	4.5%
10 Social Studies	16.7%	77.8%	5.6%

30. What is your sex?

	Female	Male
<b>All Respondents</b>	<b>67.8%</b>	<b>32.2%</b>
<b>Reading Only</b>	<b>74.1%</b>	<b>25.9%</b>
4 Reading	80.0%	20.0%
8 Reading	77.8%	22.2%
10 Reading	65.0%	35.0%
<b>Math Only</b>	<b>69.5%</b>	<b>30.5%</b>
4 Math	71.4%	28.6%
8 Math	70.0%	30.0%
10 Math	66.7%	33.3%
<b>Science</b>	<b>69.1%</b>	<b>30.9%</b>
4 Science	94.4%	5.6%
8 Science	61.1%	38.9%
10 Science	52.6%	47.4%
<b>Social Studies Only</b>	<b>58.6%</b>	<b>41.4%</b>
4 Social Studies	72.2%	27.8%
8 Social Studies	50.0%	50.0%
10 Social Studies	55.6%	44.4%

31. What is your racial/ethnic status?

	American Indian	Asian/Pacific Islander	African American	Hispanic	White	Other
<b>All Respondents</b>	<b>1.3%</b>	<b>1.3%</b>	<b>15.1%</b>	<b>4.0%</b>	<b>74.2%</b>	<b>4.0%</b>
<b>Reading Only</b>	<b>0.0%</b>	<b>0.0%</b>	<b>23.2%</b>	<b>0.0%</b>	<b>75.0%</b>	<b>1.8%</b>
4 Reading	0.0%	0.0%	21.1%	0.0%	78.9%	0.0%
8 Reading	0.0%	0.0%	27.8%	0.0%	72.2%	0.0%
10 Reading	0.0%	0.0%	21.1%	0.0%	73.7%	5.3%
<b>Math Only</b>	<b>0.0%</b>	<b>1.7%</b>	<b>13.8%</b>	<b>5.2%</b>	<b>74.1%</b>	<b>5.2%</b>
4 Math	0.0%	5.0%	20.0%	0.0%	75.0%	0.0%
8 Math	0.0%	0.0%	10.0%	10.0%	65.0%	15.0%
10 Math	0.0%	0.0%	11.1%	5.6%	83.3%	0.0%
<b>Science</b>	<b>0.0%</b>	<b>1.8%</b>	<b>16.4%</b>	<b>5.5%</b>	<b>69.1%</b>	<b>7.3%</b>
4 Science	0.0%	0.0%	16.7%	5.6%	72.2%	5.6%
8 Science	0.0%	0.0%	16.7%	0.0%	77.8%	5.6%
10 Science	0.0%	5.3%	15.8%	10.5%	57.9%	10.5%
<b>Social Studies Only</b>	<b>5.4%</b>	<b>1.8%</b>	<b>7.1%</b>	<b>5.4%</b>	<b>78.6%</b>	<b>1.8%</b>
4 Social Studies	5.6%	5.6%	22.2%	0.0%	61.1%	5.6%
8 Social Studies	9.5%	0.0%	0.0%	9.5%	81.0%	0.0%
10 Social Studies	0.0%	0.0%	0.0%	5.9%	94.1%	0.0%



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

	Special Education	ELL/ESL	Vocational Education	Alternative Education	Adult Education	Other
<b>All Respondents</b>	<b>52.2%</b>	<b>29.6%</b>	<b>9.4%</b>	<b>19.5%</b>	<b>35.2%</b>	<b>23.3%</b>
<b>Reading Only</b>	<b>54.1%</b>	<b>35.1%</b>	<b>5.4%</b>	<b>21.6%</b>	<b>35.1%</b>	<b>24.3%</b>
<b>4 Reading</b>	63.6%	45.5%	9.1%	18.2%	36.4%	18.2%
<b>8 Reading</b>	64.3%	28.6%	0.0%	21.4%	28.6%	35.7%
<b>10 Reading</b>	33.3%	33.3%	8.3%	25.0%	41.7%	16.7%
<b>Math Only</b>	<b>43.2%</b>	<b>13.6%</b>	<b>9.1%</b>	<b>22.7%</b>	<b>29.5%</b>	<b>27.3%</b>
<b>4 Math</b>	25.0%	15.0%	5.0%	5.0%	15.0%	45.0%
<b>8 Math</b>	57.1%	21.4%	21.4%	42.9%	35.7%	14.3%
<b>10 Math</b>	60.0%	0.0%	0.0%	30.0%	50.0%	10.0%
<b>Science</b>	<b>51.4%</b>	<b>43.2%</b>	<b>13.5%</b>	<b>18.9%</b>	<b>45.9%</b>	<b>24.3%</b>
<b>4 Science</b>	58.3%	50.0%	8.3%	25.0%	41.7%	33.3%
<b>8 Science</b>	69.2%	46.2%	30.8%	15.4%	30.8%	7.7%
<b>10 Science</b>	25.0%	33.3%	0.0%	16.7%	66.7%	33.3%
<b>Social Studies Only</b>	<b>61.0%</b>	<b>29.3%</b>	<b>9.8%</b>	<b>14.6%</b>	<b>31.7%</b>	<b>17.1%</b>
<b>4 Social Studies</b>	78.6%	28.6%	0.0%	0.0%	21.4%	21.4%
<b>8 Social Studies</b>	57.9%	36.8%	10.5%	31.6%	31.6%	21.1%
<b>10 Social Studies</b>	37.5%	12.5%	25.0%	0.0%	50.0%	0.0%

**Wisconsin  
BOOKMARK STANDARD SETTING EVALUATION**

**PART I: About the Conference**

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.

**Rating Scale**

	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
<b>BOOKMARK TRAINING AND PLACEMENT</b>					
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 cut scores against criticism that they were too high.	1.....	2.....	3.....	4.....	5
15. I would defend the cut scores against criticism that they were too low.	1.....	2.....	3.....	4.....	5
16. I considered the Content Standards when I placed my bookmarks.	1.....	2.....	3.....	4.....	5

(PLEASE CONTINUE ON NEXT PAGE)

- |  | SD     | D      | N      | A      | SA |
|--|--------|--------|--------|--------|----|
| 17. Overall, I believe that my opinions were considered and valued by my group.  | 1..... | 2..... | 3..... | 4..... | 5  |
| 18. I am confident that the Bookmark Procedure produced valid standards.   | 1..... | 2..... | 3..... | 4..... | 5  |
| 19. 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  |
| 20. Overall, my table's discussions were open and honest.  | 1..... | 2..... | 3..... | 4..... | 5  |
| 21. The presentation of different types of impact data was helpful to me.  | 1..... | 2..... | 3..... | 4..... | 5  |

**PROFESSIONAL DEVELOPMENT**

- |   |        |        |        |        |   |
|---|--------|--------|--------|--------|---|
| 22. Overall, I valued the conference as a professional development experience.        | 1..... | 2..... | 3..... | 4..... | 5 |
| 23. 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.

24. What is your occupation?

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

25. If you are a classroom teacher, what grade(s) do you teach? \_\_\_\_\_

26. How many years have you worked in your current profession? \_\_\_\_\_

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

Reading/Language Arts

Math

Science

Social Studies

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

4

8

10

29. What is your education level? \_\_\_\_\_ Bachelor's Degree    \_\_\_\_\_ Master's Degree    \_\_\_\_\_ Doctorate

30. What is your sex? \_\_\_\_\_ Female    \_\_\_\_\_ Male

31. What is your racial/ethnic status? (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"/>

32. 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: Research Study**

33. Imagine you had a class with 30 students of similar ability. How many of these students would need to demonstrate knowledge of a particular subject before you would begin teaching them the next subject?

Number of students: \_\_\_\_\_

**Part VI: Your Turn**

34. 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.

# Participant Evaluation of the Wisconsin Standard Setting

## Language Arts

*Note: The evaluation form follows the results (pages F2-4).*

**Wisconsin  
BOOKMARK STANDARD SETTING EVALUATION RESULTS for LANGUAGE**

**About these results:** each question and its associated instructions will be shown, along with the frequency of responses at each level for the given grade/content areas. For Likert-type scale items, a response of 1 is “Strongly Disagree”, 2 is “Disagree”, 3 is “Neutral,” 4 is “Agree,” and 5 is “Strongly Agree.” **Results for non-Language groups** are shown in a separate summary.

**PART I: About the Conference**

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. Participating in the Bookmark Standard Setting Procedure increased my understanding of the test.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.0%</b>	<b>1.8%</b>	<b>1.8%</b>	<b>24.6%</b>	<b>71.9%</b>
<b>4 Language</b>	0.0%	0.0%	5.3%	31.6%	63.2%
<b>8 Language</b>	0.0%	0.0%	0.0%	10.5%	89.5%
<b>10 Language</b>	0.0%	5.3%	0.0%	31.6%	63.2%

2. Reviewing the Target Student helped me place my bookmark.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>0.0%</b>	<b>7.3%</b>	<b>12.7%</b>	<b>40.0%</b>	<b>40.0%</b>
<b>4 Language</b>	0.0%	0.0%	21.1%	47.4%	31.6%
<b>8 Language</b>	0.0%	0.0%	0.0%	27.8%	72.2%
<b>10 Language</b>	0.0%	22.2%	16.7%	44.4%	16.7%

3. Taking the test helped me place my bookmark.

	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)
<b>All Respondents</b>	<b>1.8%</b>	<b>3.5%</b>	<b>21.1%</b>	<b>28.1%</b>	<b>45.6%</b>
<b>4 Language</b>	0.0%	5.3%	31.6%	31.6%	31.6%
<b>8 Language</b>	5.3%	0.0%	5.3%	26.3%	63.2%
<b>10 Language</b>	0.0%	5.3%	26.3%	26.3%	42.1%

4. During Round 1, I placed my bookmark without consulting other participants.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>7.0%</b>	<b>3.5%</b>	<b>5.3%</b>	<b>14.0%</b>	<b>70.2%</b>
<b>4 Language</b>	10.5%	10.5%	0.0%	21.1%	57.9%
<b>8 Language</b>	5.3%	0.0%	5.3%	10.5%	78.9%
<b>10 Language</b>	5.3%	0.0%	10.5%	10.5%	73.7%

5. Overall, I was satisfied with my group's final bookmark.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>5.5%</b>	<b>5.5%</b>	<b>5.5%</b>	<b>36.4%</b>	<b>47.3%</b>
<b>4 Language</b>	0.0%	10.5%	10.5%	36.8%	42.1%
<b>8 Language</b>	17.6%	5.9%	0.0%	35.3%	41.2%
<b>10 Language</b>	0.0%	0.0%	5.3%	36.8%	57.9%

6. I would defend the cut scores against criticism that they were too high.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>3.5%</b>	<b>8.8%</b>	<b>5.3%</b>	<b>31.6%</b>	<b>50.9%</b>
<b>4 Language</b>	0.0%	15.8%	5.3%	36.8%	42.1%
<b>8 Language</b>	10.5%	10.5%	5.3%	26.3%	47.4%
<b>10 Language</b>	0.0%	0.0%	5.3%	31.6%	63.2%

7. I would defend the cut scores against criticism that they were too low.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>12.3%</b>	<b>7.0%</b>	<b>7.0%</b>	<b>28.1%</b>	<b>45.6%</b>
<b>4 Language</b>	15.8%	5.3%	10.5%	31.6%	36.8%
<b>8 Language</b>	21.1%	10.5%	5.3%	26.3%	36.8%
<b>10 Language</b>	0.0%	5.3%	5.3%	26.3%	63.2%

8. I considered the Content Standards when I placed my bookmarks.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>0.0%</b>	<b>0.0%</b>	<b>21.1%</b>	<b>36.8%</b>	<b>42.1%</b>
<b>4 Language</b>	0.0%	0.0%	36.8%	31.6%	31.6%
<b>8 Language</b>	0.0%	0.0%	5.3%	47.4%	47.4%
<b>10 Language</b>	0.0%	0.0%	21.1%	31.6%	47.4%

9. I am confident that the Bookmark Procedure produced valid standards.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>0.0%</b>	<b>3.5%</b>	<b>22.8%</b>	<b>47.4%</b>	<b>26.3%</b>
<b>4 Language</b>	0.0%	0.0%	31.6%	47.4%	21.1%
<b>8 Language</b>	0.0%	5.3%	21.1%	52.6%	21.1%
<b>10 Language</b>	0.0%	5.3%	15.8%	42.1%	36.8%

10. The ordering of the items in the ordered item booklet agreed with my perception of the relative difficulty of the items.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>1.8%</b>	<b>14.0%</b>	<b>29.8%</b>	<b>40.4%</b>	<b>14.0%</b>
<b>4 Language</b>	0.0%	10.5%	21.1%	47.4%	21.1%
<b>8 Language</b>	5.3%	5.3%	26.3%	47.4%	15.8%
<b>10 Language</b>	0.0%	26.3%	42.1%	26.3%	5.3%

11. The presentation of different types of impact data was helpful to me.

	<b>1 (SD)</b>	<b>2 (D)</b>	<b>3 (N)</b>	<b>4 (A)</b>	<b>5 (SA)</b>
<b>All Respondents</b>	<b>1.8%</b>	<b>5.3%</b>	<b>14.0%</b>	<b>42.1%</b>	<b>36.8%</b>
<b>4 Language</b>	0.0%	5.3%	26.3%	36.8%	31.6%
<b>8 Language</b>	5.3%	0.0%	5.3%	42.1%	47.4%
<b>10 Language</b>	0.0%	10.5%	10.5%	47.4%	31.6%

12. Which grade did you work on during this standard setting?

	<b>4</b>	<b>8</b>	<b>10</b>
<b>All Respondents</b>	<b>33.3%</b>	<b>33.3%</b>	<b>33.3%</b>
<b>4 Language</b>	100.0%	0.0%	0.0%
<b>8 Language</b>	0.0%	100.0%	0.0%
<b>10 Language</b>	0.0%	0.0%	100.0%



**Wisconsin  
BOOKMARK STANDARD SETTING EVALUATION      Language Arts**

**PART I: About the Conference**

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.

	<b>Rating Scale</b>				
	1=Strongly Disagree (SD)	2=Disagree (D)	3=Neutral (N)	4=Agree (A)	5=Strongly Agree (SA)
	SD	D	N	A	SA
1. Participating in the Bookmark Standard Setting Procedure increased my understanding of the test.	1.....	2.....	3.....	4.....	5
2. Reviewing the Target Student helped me place my bookmark.	1.....	2.....	3.....	4.....	5
3. Taking the test helped me place my bookmark.	1.....	2.....	3.....	4.....	5
4. During Round 1, I placed my bookmark without consulting other participants.	1.....	2.....	3.....	4.....	5
5. Overall, I was satisfied with my group's final bookmark.	1.....	2.....	3.....	4.....	5
6. I would defend the cut scores against criticism that they were too high.	1.....	2.....	3.....	4.....	5
7. I would defend the cut scores against criticism that they were too low.	1.....	2.....	3.....	4.....	5
8. I considered the Content Standards when I placed my bookmarks.	1.....	2.....	3.....	4.....	5
9. I am confident that the Bookmark Procedure produced valid standards.	1.....	2.....	3.....	4.....	5
10. 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
11. The presentation of different types of impact data was helpful to me.	1.....	2.....	3.....	4.....	5
12. Which grade did you work on during this standard setting? (circle one)					

4

8

10

## **Section G**

1. Calculating a Meaningful Standard Error for the Bookmark Cut Score
2. Participants' Recommended Cut Scores Plus and Minus One, Two, and Three Standard Errors with Associated Impact Data

Summary Table of Standard Errors for WKCE Grade 4

Summary Table of Standard Errors for WKCE Grade 8

Summary Table of Standard Errors for WKCE Grade 10

- A. Grade 4 Reading
- B. Grade 4 Language Arts
- C. Grade 4 Mathematics
- D. Grade 4 Science
- E. Grade 4 Social Studies
- F. Grade 8 Reading
- G. Grade 8 Language Arts
- H. Grade 8 Mathematics
- I. Grade 8 Science
- J. Grade 8 Social Studies
- K. Grade 10 Reading
- L. Grade 10 Language Arts
- M. Grade 10 Mathematics
- N. Grade 10 Science
- O. Grade 10 Social Studies

## Calculating a Meaningful Standard Error for the Bookmark Cut Score

## Calculating a Meaningful Standard Error for the Bookmark Cut Score

In the Bookmark Standard Setting Procedure for a given grade and content area, participants are assigned to roughly equivalent small groups that work independently through Round 2. Thus, the set of Round 2 cut scores provide some information about the stability of consensus in Bookmark cut scores across independent small group replications. To quantify this degree of consensus, we calculate the cluster sample standard error (Cochran, 1963, p. 210) of the Round 2 mean cut score. Cluster sample standard errors are appropriate when, as may be reasonably assumed here, data are collected from groups and independence can be assumed between groups but not within groups.

For the Bookmark Procedure, the standard error of the Bookmark cut score ( $SE_{cut}$ ) is given by the cluster sample standard error of the Round 2 mean cut score:

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

where  $S^2$  is the sample variance of individual Round 2 cut scores,  $r$  is the Round 2 intraclass correlation,  $N$  is the number of participants, and  $n$  is the number of groups. To be precise, if  $Y_{ik}$  is the cut score from the  $i^{\text{th}}$  participant in the  $k^{\text{th}}$  group,  $\bar{Y}_k$  is the average cut score for group  $k$ , and  $\bar{\bar{Y}}$  is the average of all Round 2 cut scores, then

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

If we have only two groups ( $n=2$ ) and perfect dependence (agreement) within groups ( $r=1$ ), then the cluster sample standard error simplifies to  $SE_{cut} = |\bar{Y}_1 - \bar{Y}_2|/2$ , which is the standard error formula employed by NAEP for two independent replications of a modified Angoff procedure (ACT, 1983, pp. 4-8). If, on the other hand, individual participants acted independently of their groups ( $r=0$ ), then the cluster sample standard error simplifies to the traditional standard error of the mean for independent observations,  $SE_{cut} = \sqrt{S^2/N}$ . In this manner,  $SE_{cut}$  provides a simple, flexible, and general way to quantify the amount of uncertainty associated with final Bookmark cut scores.

It is appropriate (if statistically imprecise) to say that repeated replications of this very standard setting procedure with different judges sampled from the same population of potential judges would result in a range of cut scores, most of which would fall in a band of width  $4 * SE_{cut}$ . In Figures 1-4 we depict such an interval centered at the median of the Round 3 cut score. The purpose of calculating statistics like  $SE_{cut}$  and producing graphs of the types displayed here is to effectively communicate the complex information that is gathered during a Bookmark Standard Setting Procedure.

# Participants' Recommended Cut Scores Plus and Minus One, Two, and Three Standard Errors with Associated Impact Data

Summary Table of Standard Errors for WKCE Grade 4

Summary Table of Standard Errors for WKCE Grade 8

Summary Table of Standard Errors for WKCE Grade 10

Grade 4 Reading

Grade 4 Language Arts

Grade 4 Mathematics

Grade 4 Science

Grade 4 Social Studies

Grade 8 Reading

Grade 8 Language Arts

Grade 8 Mathematics

Grade 8 Science

Grade 8 Social Studies

Grade 10 Reading

Grade 10 Language Arts

Grade 10 Mathematics

Grade 10 Science

Grade 10 Social Studies

## Summary Table of Standard Errors for WKCE Grade 4

Wisconsin WKCE Grade 4 Reading	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	2.20	3.40	3.86
<b>Standard Error (SE)</b> <small>measurement</small>	16	10	12
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	16.15	10.56	12.61

Wisconsin WKCE Grade 4 Language	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	2.40	4.35	6.09
<b>Standard Error (SE)</b> <small>measurement</small>	15	11	12
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	15.19	11.83	13.46

Wisconsin WKCE Grade 4 Mathematics	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	5.47	1.25	6.16
<b>Standard Error (SE)</b> <small>measurement</small>	10	10	10
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	11.40	10.08	11.75

Wisconsin WKCE Grade 4 Science	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	7.71	7.76	10.65
<b>Standard Error (SE)</b> <small>measurement</small>	16	12	10
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	17.76	14.29	14.61

Wisconsin WKCE Grade 4 Social Studies	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	4.53	2.45	6.81
<b>Standard Error (SE)</b> <small>measurement</small>	11	9	9
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	11.90	9.33	11.29

## Summary Table of Standard Errors for WKCE Grade 8

Wisconsin WKCE Grade 8 Reading	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	3.98	2.60	7.78
<b>Standard Error (SE)</b> <small>measurement</small>	12	10	13
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	12.64	10.33	15.15

Wisconsin WKCE Grade 8 Language	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	1.11	2.78	4.53
<b>Standard Error (SE)</b> <small>measurement</small>	11	10	11
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	11.06	10.38	11.89

Wisconsin WKCE Grade 8 Mathematics	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	3.33	4.11	2.34
<b>Standard Error (SE)</b> <small>measurement</small>	13	11	10
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	13.42	11.74	10.27

Wisconsin WKCE Grade 8 Science	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	2.00	2.59	7.69
<b>Standard Error (SE)</b> <small>measurement</small>	10	8	10
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	10.20	8.41	12.61

Wisconsin WKCE Grade 8 Social Studies	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	1.46	1.49	5.03
<b>Standard Error (SE)</b> <small>measurement</small>	11	7	7
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	11.10	7.16	8.62

## Summary Table of Standard Errors for WKCE Grade 10

Wisconsin WKCE Grade 10 Reading	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	0.59	2.42	5.56
<b>Standard Error (SE)</b> <small>measurement</small>	11	11	13
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	11.02	11.26	14.14

Wisconsin WKCE Grade 10 Language	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	0.66	2.62	3.86
<b>Standard Error (SE)</b> <small>measurement</small>	12	13	18
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	12.02	13.26	18.41

Wisconsin WKCE Grade 10 Mathematics	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	3.22	2.57	3.58
<b>Standard Error (SE)</b> <small>measurement</small>	14	11	13
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	14.36	11.30	13.48

Wisconsin WKCE Grade 10 Science	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	1.41	2.26	5.88
<b>Standard Error (SE)</b> <small>measurement</small>	14	12	11
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	14.07	12.21	12.47

Wisconsin WKCE Grade 10 Social Studies	<b>Basic</b>	<b>Proficient</b>	<b>Advanced</b>
<b>Standard Error (SE)</b> <small>cut score</small>	4.70	2.00	1.76
<b>Standard Error (SE)</b> <small>measurement</small>	7	6	7
<b>Standard Error (SE)</b> <small>cut score + measurement</small>	8.43	6.32	7.22



# Grade 4 Reading

## Wisconsin WKCE Grade 4 Reading

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <sub>cut score</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		2.20	3.40	3.86	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		5.92	6.26	6.65	<b>+ 3 SEs</b>
Percent of students in each Performance Level	6.49	18.55	48.01	26.96	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		5.89	6.23	6.61	<b>+ 2 SEs</b>
Percent of students in each Performance Level	5.36	16.61	44.69	33.34	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		5.87	6.19	6.57	<b>+ 1 SE</b>
Percent of students in each Performance Level	5.36	13.93	41.45	39.26	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		5.85	6.16	6.53	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	4.36	12.52	43.87	39.26	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		5.83	6.13	6.49	<b>- 1 SE</b>
Percent of students in each Performance Level	4.36	10.28	40.37	45.00	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		5.81	6.09	6.45	<b>- 2 SEs</b>
Percent of students in each Performance Level	3.53	9.12	36.82	50.53	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		5.78	6.06	6.41	<b>- 3 SEs</b>
Percent of students in each Performance Level	3.53	7.30	33.68	55.48	

\*Large Group Medians

## Wisconsin WKCE Grade 4 Reading

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		16	10	12	
<b>Participants Recommended Cut Point* + 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	31.84	633 31.84 17.63	646 49.47 41.30	689 90.77 9.23	<b>+ 3 SEs</b>
<b>Participants Recommended Cut Point* + 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	19.29	617 19.29 16.42	636 35.71 49.44	677 85.15 14.85	<b>+ 2 SEs</b>
<b>Participants Recommended Cut Point* + 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	9.24	601 9.24 15.80	626 25.03 48.01	665 73.04 26.96	<b>+1 SE</b>
<b>Participants Recommended Cut Point*</b> Percent of students Below each Performance Level Percent of students in each Performance Level	4.36	585 4.36 12.52	616 16.87 43.87	653 60.74 39.26	<b>Participants Recommended Cut Points*</b>
<b>Participants Recommended Cut Point* - 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	2.15	569 2.15 8.69	606 10.83 33.68	641 44.52 55.48	<b>- 1 SE</b>
<b>Participants Recommended Cut Point* - 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	1.18	553 1.18 6.59	596 7.78 20.47	629 28.25 71.75	<b>- 2 SEs</b>
<b>Participants Recommended Cut Point* - 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	0.79	537 0.79 3.56	586 4.36 14.93	617 19.29 80.71	<b>- 3 SEs</b>

\*Large Group Medians

## Wisconsin WKCE Grade 4 Reading

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		16.15	10.56	12.61	
<b>Participants Recommended Cut Point* + 3 SEs</b>		633	648	691	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		31.84	55.00	90.77	
Percent of students in each Performance Level	31.84	23.16	35.78	9.23	
<b>Participants Recommended Cut Point* + 2 SEs</b>		617	637	678	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		19.29	39.87	85.15	
Percent of students in each Performance Level	19.29	20.58	45.29	14.85	
<b>Participants Recommended Cut Point* + 1 SE</b>		601	627	666	<b>+1 SE</b>
Percent of students Below each Performance Level		9.24	28.25	73.04	
Percent of students in each Performance Level	9.24	19.01	44.79	26.96	
<b>Participants Recommended Cut Point*</b>		585	616	653	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		4.36	16.87	60.74	
Percent of students in each Performance Level	4.36	12.52	43.87	39.26	
<b>Participants Recommended Cut Point* - 1 SE</b>		569	605	640	<b>- 1 SE</b>
Percent of students Below each Performance Level		2.15	10.83	39.87	
Percent of students in each Performance Level	2.15	8.69	29.03	60.13	
<b>Participants Recommended Cut Point* - 2 SEs</b>		553	595	628	<b>- 2 SEs</b>
Percent of students Below each Performance Level		1.18	6.49	28.25	
Percent of students in each Performance Level	1.18	5.30	21.76	71.75	
<b>Participants Recommended Cut Point* - 3 SEs</b>		537	584	615	<b>- 3 SEs</b>
Percent of students Below each Performance Level		0.79	4.36	16.87	
Percent of students in each Performance Level	0.79	3.56	12.52	83.13	

\*Large Group Medians

# Grade 4 Language Arts

## Wisconsin WKCE Grade 4 Language

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <sub>cut score</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		2.40	4.35	6.09	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		599	634	676	<b>+ 3 SEs</b>
Percent of students in each Performance Level	6.82	6.82	33.72	81.57	
		26.90	47.85	18.43	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		597	630	670	<b>+ 2 SEs</b>
Percent of students in each Performance Level	6.82	6.82	29.98	76.66	
		23.16	46.68	23.34	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		594	625	664	<b>+1 SE</b>
Percent of students in each Performance Level	5.41	5.41	23.10	71.60	
		17.69	48.50	28.40	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		592	621	658	<b>Participants Recommended Cut Points *</b>
Percent of students in each Performance Level	5.41	5.41	20.13	66.45	
		14.72	46.32	33.55	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		590	617	652	<b>- 1 SE</b>
Percent of students in each Performance Level	4.11	4.11	17.40	56.43	
		13.30	39.03	43.57	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		587	612	646	<b>- 2 SEs</b>
Percent of students in each Performance Level	4.11	4.11	14.88	46.84	
		10.77	31.96	53.16	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		585	608	640	<b>- 3 SEs</b>
Percent of students in each Performance Level	3.03	3.03	12.46	42.20	
		9.43	29.73	57.80	

\*Large Group Medians

## Wisconsin WKCE Grade 4 Language

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		15	11	12	
<b>Participants Recommended Cut Point* + 3 SEs</b>		637	654	694	
Percent of students Below each Performance Level		37.72	61.54	93.36	<b>+ 3 SEs</b>
Percent of students in each Performance Level	37.72	23.82	31.82	6.64	
<b>Participants Recommended Cut Point* + 2 SEs</b>		622	643	682	
Percent of students Below each Performance Level		20.13	46.84	85.97	<b>+ 2 SEs</b>
Percent of students in each Performance Level	20.13	26.71	39.13	14.03	
<b>Participants Recommended Cut Point* + 1 SE</b>		607	632	670	
Percent of students Below each Performance Level		10.32	29.98	76.66	<b>+1 SE</b>
Percent of students in each Performance Level	10.32	19.66	46.68	23.34	
<b>Participants Recommended Cut Point*</b>		592	621	658	
Percent of students Below each Performance Level		5.41	20.13	66.45	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	5.41	14.72	46.32	33.55	
<b>Participants Recommended Cut Point* - 1 SE</b>		577	610	646	
Percent of students Below each Performance Level		2.18	12.46	46.84	<b>- 1 SE</b>
Percent of students in each Performance Level	2.18	10.28	34.38	53.16	
<b>Participants Recommended Cut Point* - 2 SEs</b>		562	599	634	
Percent of students Below each Performance Level		1.06	6.82	33.72	<b>- 2 SEs</b>
Percent of students in each Performance Level	1.06	5.76	26.90	66.28	
<b>Participants Recommended Cut Point* - 3 SEs</b>		547	588	622	
Percent of students Below each Performance Level		0.70	4.11	20.13	<b>- 3 SEs</b>
Percent of students in each Performance Level	0.70	3.41	16.03	79.87	

\*Large Group Medians

## Wisconsin WKCE Grade 4 Language

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		15.19	11.83	13.46	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		638	656	698	
Percent of students in each Performance Level	37.72	37.72	61.54	93.36	+ 3 SEs
		23.82	31.82	6.64	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		622	645	685	
Percent of students in each Performance Level	20.13	20.13	46.84	89.94	+ 2 SEs
		26.71	43.10	10.06	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		607	633	671	
Percent of students in each Performance Level	10.32	10.32	33.72	76.66	+1 SE
		23.41	42.94	23.34	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		592	621	658	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	5.41	5.41	20.13	66.45	
		14.72	46.32	33.55	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		577	609	645	
Percent of students in each Performance Level	2.18	2.18	12.46	46.84	- 1 SE
		10.28	34.38	53.16	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		562	597	631	
Percent of students in each Performance Level	1.06	1.06	6.82	29.98	- 2 SEs
		5.76	23.16	70.02	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		546	586	618	
Percent of students in each Performance Level	0.70	0.70	4.11	17.40	- 3 SEs
		3.41	13.30	82.60	

\*Large Group Medians



# Grade 4 Mathematics

## Wisconsin WKCE Grade 4 Mathematics

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <small>cut score</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		5.47	1.25	6.16	
<b>Participants Recommended Cut Point* + 3 SEs</b>		618	618	667	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		31.81	31.81	84.41	
Percent of students in each Performance Level	31.81	0.00	52.60	15.59	
<b>Participants Recommended Cut Point* + 2 SEs</b>		613	617	661	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		24.16	29.28	79.46	
Percent of students in each Performance Level	24.16	5.12	50.18	20.54	
<b>Participants Recommended Cut Point* + 1 SE</b>		607	615	655	<b>+1 SE</b>
Percent of students Below each Performance Level		19.63	26.73	73.96	
Percent of students in each Performance Level	19.63	7.10	47.22	26.04	
<b>Participants Recommended Cut Point*</b>		602	614	649	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		15.45	26.73	68.19	
Percent of students in each Performance Level	15.45	11.28	41.46	31.81	
<b>Participants Recommended Cut Point* - 1 SE</b>		597	613	643	<b>- 1 SE</b>
Percent of students Below each Performance Level		11.76	24.16	62.05	
Percent of students in each Performance Level	11.76	12.40	37.89	37.95	
<b>Participants Recommended Cut Point* - 2 SEs</b>		591	611	637	<b>- 2 SEs</b>
Percent of students Below each Performance Level		8.75	24.16	52.61	
Percent of students in each Performance Level	8.75	15.41	28.45	47.39	
<b>Participants Recommended Cut Point* - 3 SEs</b>		586	610	631	<b>- 3 SEs</b>
Percent of students Below each Performance Level		7.41	21.87	46.62	
Percent of students in each Performance Level	7.41	14.46	24.74	53.38	

\*Large Group Medians

## Wisconsin WKCE Grade 4 Mathematics

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance		Basic		Proficient		Advanced		Standard Error Calculations	
			10		10		10			
<b>Participants Recommended Cut Point* + 3 SEs</b>			632		644		679			<b>+ 3 SEs</b>
Percent of students Below each Performance Level			46.62		62.05		92.56			
Percent of students in each Performance Level			15.43		30.51		7.44			
<b>Participants Recommended Cut Point* + 2 SEs</b>			622		634		669			<b>+ 2 SEs</b>
Percent of students Below each Performance Level			34.75		49.55		86.74			
Percent of students in each Performance Level			14.80		37.19		13.26			
<b>Participants Recommended Cut Point* + 1 SE</b>			612		624		659			<b>+1 SE</b>
Percent of students Below each Performance Level			24.16		37.58		79.46			
Percent of students in each Performance Level			13.42		41.88		20.54			
<b>Participants Recommended Cut Point*</b>			602		614		649			<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level			15.45		26.73		68.19			
Percent of students in each Performance Level			11.28		41.46		31.81			
<b>Participants Recommended Cut Point* - 1 SE</b>			592		604		639			<b>- 1 SE</b>
Percent of students Below each Performance Level			10.14		17.39		55.72			
Percent of students in each Performance Level			7.25		38.33		44.28			
<b>Participants Recommended Cut Point* - 2 SEs</b>			582		594		629			<b>- 2 SEs</b>
Percent of students Below each Performance Level			6.17		10.14		43.60			
Percent of students in each Performance Level			3.97		33.46		56.40			
<b>Participants Recommended Cut Point* - 3 SEs</b>			572		584		619			<b>- 3 SEs</b>
Percent of students Below each Performance Level			3.39		6.17		31.81			
Percent of students in each Performance Level			2.78		25.63		68.19			

\*Large Group Medians

### Wisconsin WKCE Grade 4 Mathematics

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		11.40	10.08	11.75	
<b>Participants Recommended Cut Point* + 3 SEs</b>		636	644	684	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		52.61	62.05	94.13	
Percent of students in each Performance Level	52.61	9.45	32.08	5.87	
<b>Participants Recommended Cut Point* + 2 SEs</b>		625	634	672	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		37.58	49.55	88.91	
Percent of students in each Performance Level	37.58	11.97	39.36	11.09	
<b>Participants Recommended Cut Point* + 1 SE</b>		613	624	661	<b>+1 SE</b>
Percent of students Below each Performance Level		24.16	37.58	79.46	
Percent of students in each Performance Level	24.16	13.42	41.88	20.54	
<b>Participants Recommended Cut Point*</b>		602	614	649	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		15.45	26.73	68.19	
Percent of students in each Performance Level	15.45	11.28	41.46	31.81	
<b>Participants Recommended Cut Point* - 1 SE</b>		591	604	637	<b>- 1 SE</b>
Percent of students Below each Performance Level		8.75	17.39	52.61	
Percent of students in each Performance Level	8.75	8.65	35.21	47.39	
<b>Participants Recommended Cut Point* - 2 SEs</b>		579	594	626	<b>- 2 SEs</b>
Percent of students Below each Performance Level		5.07	10.14	40.63	
Percent of students in each Performance Level	5.07	5.07	30.49	59.37	
<b>Participants Recommended Cut Point* - 3 SEs</b>		568	584	614	<b>- 3 SEs</b>
Percent of students Below each Performance Level		2.68	6.17	26.73	
Percent of students in each Performance Level	2.68	3.49	20.56	73.27	

\*Large Group Medians

# Grade 4 Science

## Wisconsin WKCE Grade 4 Science

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <small>cut score</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		7.71	7.76	10.65	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level	602	637	695		
Percent of students in each Performance Level	12.51	46.83	97.76		<b>+ 3 SEs</b>
	34.32	50.93	2.24		
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level	594	630	684		
Percent of students in each Performance Level	9.32	36.05	93.70		<b>+ 2 SEs</b>
	26.74	57.65	6.30		
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level	587	622	674		
Percent of students in each Performance Level	6.63	26.42	89.52		<b>+1 SE</b>
	19.79	63.10	10.48		
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level	579	614	663		<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	4.52	21.05	80.76		
	16.52	59.71	19.24		
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level	571	606	652		
Percent of students in each Performance Level	2.97	14.41	66.30		<b>- 1 SE</b>
	11.44	51.89	33.70		
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level	564	598	642		
Percent of students in each Performance Level	1.95	10.82	50.52		<b>- 2 SEs</b>
	8.87	39.71	49.48		
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level	556	591	631		
Percent of students in each Performance Level	1.48	7.91	39.53		<b>- 3 SEs</b>
	6.43	31.62	60.47		

\*Large Group Medians

## Wisconsin WKCE Grade 4 Science

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		627	650	693	
Percent of students in each Performance Level	32.72	32.72	62.37	96.72	<b>+ 3 SEs</b>
		29.66	34.34	3.28	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		611	638	683	
Percent of students in each Performance Level	18.65	18.65	46.83	93.70	<b>+ 2 SEs</b>
		28.18	46.87	6.30	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		595	626	673	
Percent of students in each Performance Level	9.32	9.32	32.72	86.82	<b>+1 SE</b>
		23.40	54.10	13.18	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		579	614	663	<b>Participants Recommended Cut Points *</b>
Percent of students in each Performance Level	4.52	4.52	21.05	80.76	
		16.52	59.71	19.24	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		563	602	653	
Percent of students in each Performance Level	1.95	1.95	12.51	66.30	<b>- 1 SE</b>
		10.57	53.78	33.70	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		547	590	643	
Percent of students in each Performance Level	0.90	0.90	7.91	54.53	<b>- 2 SEs</b>
		7.02	46.61	45.47	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		531	578	633	
Percent of students in each Performance Level	0.49	0.49	4.52	39.53	<b>- 3 SEs</b>
		4.03	35.01	60.47	

\*Large Group Medians

## Wisconsin WKCE Grade 4 Science

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		17.76	14.29	14.61	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level	632	657	707		
Percent of students in each Performance Level	39.53	73.79	99.15		<b>+ 3 SEs</b>
	34.26	25.35	0.85		
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level	615	643	692		
Percent of students in each Performance Level	21.05	54.53	96.72		<b>+ 2 SEs</b>
	33.48	42.19	3.28		
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level	597	628	678		
Percent of students in each Performance Level	10.82	36.05	91.82		<b>+1 SE</b>
	25.24	55.77	8.18		
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level	579	614	663		<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	4.52	21.05	80.76		
	16.52	59.71	19.24		
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level	561	600	648		
Percent of students in each Performance Level	1.95	10.82	62.37		<b>- 1 SE</b>
	8.87	51.56	37.63		
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level	543	585	634		
Percent of students in each Performance Level	0.90	5.45	42.99		<b>- 2 SEs</b>
	4.56	37.54	57.01		
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level	526	571	619		
Percent of students in each Performance Level	0.49	2.97	23.63		<b>- 3 SEs</b>
	2.49	20.65	76.37		

\*Large Group Medians



# Grade 4 Social Studies

## Wisconsin WKCE Grade 4 Social Studies

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <sub>cut score</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		4.53	2.45	6.81	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		606	618	659	<b>+ 3 SEs</b>
Percent of students in each Performance Level	5.76	5.76	13.02	70.73	
		7.26	57.71	29.27	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		601	616	653	<b>+ 2 SEs</b>
Percent of students in each Performance Level	3.93	3.93	11.12	59.48	
		7.19	48.36	40.52	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		597	613	646	<b>+1 SE</b>
Percent of students in each Performance Level	3.28	3.28	9.45	48.42	
		6.17	38.97	51.58	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		592	611	639	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	2.15	2.15	8.05	38.53	
		5.90	30.48	61.47	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		587	609	632	<b>- 1 SE</b>
Percent of students in each Performance Level	1.74	1.74	6.77	26.48	
		5.03	19.71	73.52	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		583	606	625	<b>- 2 SEs</b>
Percent of students in each Performance Level	1.14	1.14	5.76	17.38	
		4.63	11.61	82.62	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		578	604	619	<b>- 3 SEs</b>
Percent of students in each Performance Level	0.89	0.89	4.76	13.02	
		3.87	8.27	86.98	

\*Large Group Medians

## Wisconsin WKCE Grade 4 Social Studies

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		11	9	9	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		625	638	666	<b>+ 3 SEs</b>
Percent of students in each Performance Level	17.38	17.38	34.19	81.49	
		16.82	47.30	18.51	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		614	629	657	<b>+ 2 SEs</b>
Percent of students in each Performance Level	9.45	9.45	23.04	65.08	
		13.58	42.04	34.92	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		603	620	648	<b>+1 SE</b>
Percent of students in each Performance Level	4.76	4.76	13.02	53.86	
		8.27	40.84	46.14	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		592	611	639	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	2.15	2.15	8.05	38.53	
		5.90	30.48	61.47	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		581	602	630	<b>- 1 SE</b>
Percent of students in each Performance Level	1.14	1.14	3.93	23.04	
		2.80	19.10	76.96	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		570	593	621	<b>- 2 SEs</b>
Percent of students in each Performance Level	0.50	0.50	2.15	15.06	
		1.65	12.91	84.94	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		559	584	612	<b>- 3 SEs</b>
Percent of students in each Performance Level	0.37	0.37	1.40	8.05	
		1.03	6.65	91.95	

\*Large Group Medians

### Wisconsin WKCE Grade 4 Social Studies

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		11.90	9.33	11.29	
<b>Participants Recommended Cut Point* + 3 SEs</b>		628	639	673	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		20.00	38.53	86.32	
Percent of students in each Performance Level	20.00	18.53	47.79	13.68	
		616	630	662	
<b>Participants Recommended Cut Point* + 2 SEs</b>		11.12	23.04	76.20	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		11.12	23.04	76.20	
Percent of students in each Performance Level	11.12	11.91	53.17	23.80	
		604	620	650	
<b>Participants Recommended Cut Point* + 1 SE</b>		4.76	13.02	53.86	<b>+1 SE</b>
Percent of students Below each Performance Level		4.76	13.02	53.86	
Percent of students in each Performance Level	4.76	8.27	40.84	46.14	
		592	611	639	
<b>Participants Recommended Cut Point*</b>		2.15	8.05	38.53	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		2.15	8.05	38.53	
Percent of students in each Performance Level	2.15	5.90	30.48	61.47	
		580	602	628	
<b>Participants Recommended Cut Point* - 1 SE</b>		1.14	3.93	20.00	<b>- 1 SE</b>
Percent of students Below each Performance Level		1.14	3.93	20.00	
Percent of students in each Performance Level	1.14	2.80	16.06	80.00	
		568	592	616	
<b>Participants Recommended Cut Point* - 2 SEs</b>		0.50	2.15	11.12	<b>- 2 SEs</b>
Percent of students Below each Performance Level		0.50	2.15	11.12	
Percent of students in each Performance Level	0.50	1.65	8.97	88.88	
		556	583	605	
<b>Participants Recommended Cut Point* - 3 SEs</b>		0.26	1.14	5.76	<b>- 3 SEs</b>
Percent of students Below each Performance Level		0.26	1.14	5.76	
Percent of students in each Performance Level	0.26	0.88	4.63	94.24	

\*Large Group Medians

# Grade 8 Reading

## Wisconsin WKCE Grade 8 Reading

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <sub>cut score</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		3.98	2.60	7.78	
<b>Participants Recommended Cut Point* + 3 SEs</b>		645	662	721	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		11.87	24.17	83.08	
Percent of students in each Performance Level	11.87	12.30	58.91	16.92	
<b>Participants Recommended Cut Point* + 2 SEs</b>		641	659	714	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		10.04	20.98	77.38	
Percent of students in each Performance Level	10.04	10.94	56.40	22.62	
<b>Participants Recommended Cut Point* + 1 SE</b>		637	657	706	<b>+1 SE</b>
Percent of students Below each Performance Level		8.52	18.21	71.26	
Percent of students in each Performance Level	8.52	9.69	53.05	28.74	
<b>Participants Recommended Cut Point*</b>		633	654	698	<b>Participants Recommended Cut Points *</b>
Percent of students Below each Performance Level		7.25	15.79	58.26	
Percent of students in each Performance Level	7.25	8.54	42.47	41.74	
<b>Participants Recommended Cut Point* - 1 SE</b>		629	651	690	<b>- 1 SE</b>
Percent of students Below each Performance Level		6.06	13.73	52.08	
Percent of students in each Performance Level	6.06	7.68	38.34	47.92	
<b>Participants Recommended Cut Point* - 2 SEs</b>		625	649	682	<b>- 2 SEs</b>
Percent of students Below each Performance Level		5.07	13.73	40.93	
Percent of students in each Performance Level	5.07	8.67	27.20	59.07	
<b>Participants Recommended Cut Point* - 3 SEs</b>		621	646	675	<b>- 3 SEs</b>
Percent of students Below each Performance Level		4.17	11.87	36.06	
Percent of students in each Performance Level	4.17	7.70	24.19	63.94	

\*Large Group Medians

## Wisconsin WKCE Grade 8 Reading

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		12	10	13	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		669	684	737	<b>+ 3 SEs</b>
Percent of students in each Performance Level	27.64	27.64	46.32	95.65	
		18.68	49.34	4.35	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		657	674	724	<b>+ 2 SEs</b>
Percent of students in each Performance Level	18.21	18.21	36.06	88.19	
		17.86	52.13	11.81	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		645	664	711	<b>+1 SE</b>
Percent of students in each Performance Level	11.87	11.87	24.17	77.38	
		12.30	53.21	22.62	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		633	654	698	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	7.25	7.25	15.79	58.26	
		8.54	42.47	41.74	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		621	644	685	<b>- 1 SE</b>
Percent of students in each Performance Level	4.17	4.17	10.04	46.32	
		5.88	36.27	53.68	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		609	634	672	<b>- 2 SEs</b>
Percent of students in each Performance Level	2.70	2.70	7.25	31.54	
		4.55	24.28	68.46	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		597	624	659	<b>- 3 SEs</b>
Percent of students in each Performance Level	1.67	1.67	4.17	20.98	
		2.49	16.81	79.02	

\*Large Group Medians

## Wisconsin WKCE Grade 8 Reading

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
<b>Participants Recommended Cut Point* + 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	31.54	671 31.54 14.78	685 46.32 49.34	743 95.65 4.35	<b>+ 3 SEs</b>
<b>Participants Recommended Cut Point* + 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	18.21	658 18.21 17.86	675 36.06 56.33	728 92.39 7.61	<b>+ 2 SEs</b>
<b>Participants Recommended Cut Point* + 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	11.87	646 11.87 12.30	664 24.17 53.21	713 77.38 22.62	<b>+1 SE</b>
<b>Participants Recommended Cut Point*</b> Percent of students Below each Performance Level Percent of students in each Performance Level	7.25	633 7.25 8.54	654 15.79 42.47	698 58.26 41.74	<b>Participants Recommended Cut Points*</b>
<b>Participants Recommended Cut Point* - 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	4.17	620 4.17 5.88	644 10.04 36.27	683 46.32 53.68	<b>- 1 SE</b>
<b>Participants Recommended Cut Point* - 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	2.70	608 2.70 4.55	633 7.25 20.39	668 27.64 72.36	<b>- 2 SEs</b>
<b>Participants Recommended Cut Point* - 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	1.67	595 1.67 2.49	623 4.17 11.63	653 15.79 84.21	<b>- 3 SEs</b>

\*Large Group Medians



# Grade 8 Language Arts

## Wisconsin WKCE Grade 8 Language

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <small>cut score</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		1.11	2.78	4.53	
<b>Participants Recommended Cut Point* + 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	16.17	647 16.17 32.88	676 49.06 41.36	716 90.41 9.59	<b>+ 3 SEs</b>
<b>Participants Recommended Cut Point* + 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	16.17	646 16.17 28.44	674 44.61 42.85	711 87.46 12.54	<b>+ 2 SEs</b>
<b>Participants Recommended Cut Point* + 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	13.57	645 13.57 26.74	671 40.31 43.61	707 83.92 16.08	<b>+1 SE</b>
<b>Participants Recommended Cut Point*</b> Percent of students Below each Performance Level Percent of students in each Performance Level	13.57	644 13.57 22.59	668 36.16 44.05	702 80.21 19.79	<b>Participants Recommended Cut Points*</b>
<b>Participants Recommended Cut Point* - 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	13.57	643 13.57 18.69	665 32.26 39.69	697 71.95 28.05	<b>- 1 SE</b>
<b>Participants Recommended Cut Point* - 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	11.39	642 11.39 17.14	662 28.53 38.97	693 67.50 32.50	<b>- 2 SEs</b>
<b>Participants Recommended Cut Point* - 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	11.39	641 11.39 17.14	660 28.53 34.34	688 62.87 37.13	<b>- 3 SEs</b>

\*Large Group Medians

## Wisconsin WKCE Grade 8 Language

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		11	10	11	
<b>Participants Recommended Cut Point* + 3 SEs</b>		677	698	735	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		49.06	76.11	96.97	
Percent of students in each Performance Level	49.06	27.05	20.85	3.03	
<b>Participants Recommended Cut Point* + 2 SEs</b>		666	688	724	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		36.16	62.87	93.00	
Percent of students in each Performance Level	36.16	26.72	30.13	7.00	
<b>Participants Recommended Cut Point* + 1 SE</b>		655	678	713	<b>+1 SE</b>
Percent of students Below each Performance Level		21.90	49.06	87.46	
Percent of students in each Performance Level	21.90	27.16	38.41	12.54	
<b>Participants Recommended Cut Point*</b>		644	668	702	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		13.57	36.16	80.21	
Percent of students in each Performance Level	13.57	22.59	44.05	19.79	
<b>Participants Recommended Cut Point* - 1 SE</b>		633	658	691	<b>- 1 SE</b>
Percent of students Below each Performance Level		7.73	25.06	67.50	
Percent of students in each Performance Level	7.73	17.32	42.44	32.50	
<b>Participants Recommended Cut Point* - 2 SEs</b>		622	648	680	<b>- 2 SEs</b>
Percent of students Below each Performance Level		4.85	16.17	53.63	
Percent of students in each Performance Level	4.85	11.32	37.46	46.37	
<b>Participants Recommended Cut Point* - 3 SEs</b>		611	638	669	<b>- 3 SEs</b>
Percent of students Below each Performance Level		2.71	9.45	40.31	
Percent of students in each Performance Level	2.71	6.75	30.85	59.69	

\*Large Group Medians



# Grade 8 Mathematics

## Wisconsin WKCE Grade 8 Mathematics

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <sub>cut score</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		3.33	4.11	2.34	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		669	694	737	<b>+ 3 SEs</b>
Percent of students in each Performance Level	17.44	17.44	36.06	79.21	
		18.62	43.15	20.79	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		666	690	735	<b>+ 2 SEs</b>
Percent of students in each Performance Level	15.81	15.81	31.21	79.21	
		15.41	48.00	20.79	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		662	686	732	<b>+1 SE</b>
Percent of students in each Performance Level	12.82	12.82	29.01	76.55	
		16.19	47.54	23.45	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		659	682	730	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	12.82	12.82	24.90	73.76	
		12.08	48.86	26.24	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		656	678	728	<b>- 1 SE</b>
Percent of students in each Performance Level	11.42	11.42	22.90	70.99	
		11.47	48.10	29.01	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		652	674	725	<b>- 2 SEs</b>
Percent of students in each Performance Level	10.21	10.21	19.20	68.31	
		8.99	49.11	31.69	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		649	670	723	<b>- 3 SEs</b>
Percent of students in each Performance Level	8.95	8.95	17.44	65.53	
		8.49	48.09	34.47	

\*Large Group Medians

## Wisconsin WKCE Grade 8 Mathematics

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		13	11	10	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level	698	715	760		
Percent of students in each Performance Level	38.64	57.09	93.08		<b>+ 3 SEs</b>
	18.45	35.99	6.92		
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level	685	704	750		
Percent of students in each Performance Level	26.86	46.24	89.09		<b>+ 2 SEs</b>
	19.38	42.85	10.91		
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level	672	693	740		
Percent of students in each Performance Level	19.20	33.55	81.80		<b>+1 SE</b>
	14.36	48.25	18.20		
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level	659	682	730		<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	12.82	24.90	73.76		
	12.08	48.86	26.24		
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level	646	671	720		
Percent of students in each Performance Level	7.84	17.44	62.64		<b>- 1 SE</b>
	9.60	45.19	37.36		
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level	633	660	710		
Percent of students in each Performance Level	5.04	12.82	51.62		<b>- 2 SEs</b>
	7.78	38.80	48.38		
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level	620	649	700		
Percent of students in each Performance Level	3.49	8.95	41.17		<b>- 3 SEs</b>
	5.46	32.22	58.83		

\*Large Group Medians

## Wisconsin WKCE Grade 8 Mathematics

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		13.42	11.74	10.27	
<b>Participants Recommended Cut Point* + 3 SEs</b>		699	717	761	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		41.17	59.87	93.08	
Percent of students in each Performance Level	41.17	18.70	33.21	6.92	
<b>Participants Recommended Cut Point* + 2 SEs</b>		686	705	751	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		29.01	46.24	89.09	
Percent of students in each Performance Level	29.01	17.23	42.85	10.91	
<b>Participants Recommended Cut Point* + 1 SE</b>		672	694	740	<b>+1 SE</b>
Percent of students Below each Performance Level		19.20	36.06	81.80	
Percent of students in each Performance Level	19.20	16.86	45.74	18.20	
<b>Participants Recommended Cut Point*</b>		659	682	730	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		12.82	24.90	73.76	
Percent of students in each Performance Level	12.82	12.08	48.86	26.24	
<b>Participants Recommended Cut Point* - 1 SE</b>		646	670	720	<b>- 1 SE</b>
Percent of students Below each Performance Level		7.84	17.44	62.64	
Percent of students in each Performance Level	7.84	9.60	45.19	37.36	
<b>Participants Recommended Cut Point* - 2 SEs</b>		632	659	709	<b>- 2 SEs</b>
Percent of students Below each Performance Level		5.04	12.82	51.62	
Percent of students in each Performance Level	5.04	7.78	38.80	48.38	
<b>Participants Recommended Cut Point* - 3 SEs</b>		619	647	699	<b>- 3 SEs</b>
Percent of students Below each Performance Level		2.83	7.84	41.17	
Percent of students in each Performance Level	2.83	5.01	33.33	58.83	

\*Large Group Medians



# Grade 8 Science

## Wisconsin WKCE Grade 8 Science

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <sub>cut score</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		2.00	2.59	7.69	
<b>Participants Recommended Cut Point* + 3 SEs</b>		666	690	740	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		13.12	34.05	92.68	
Percent of students in each Performance Level	13.12	20.93	58.63	7.32	
<b>Participants Recommended Cut Point* + 2 SEs</b>		664	687	732	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		11.81	31.54	87.78	
Percent of students in each Performance Level	11.81	19.73	56.25	12.22	
<b>Participants Recommended Cut Point* + 1 SE</b>		662	685	725	<b>+1 SE</b>
Percent of students Below each Performance Level		10.62	29.02	81.61	
Percent of students in each Performance Level	10.62	18.40	52.59	18.39	
<b>Participants Recommended Cut Point*</b>		660	682	717	<b>Participants Recommended Cut Points *</b>
Percent of students Below each Performance Level		9.52	24.72	74.62	
Percent of students in each Performance Level	9.52	15.19	49.90	25.38	
<b>Participants Recommended Cut Point* - 1 SE</b>		658	679	709	<b>- 1 SE</b>
Percent of students Below each Performance Level		8.50	22.83	63.46	
Percent of students in each Performance Level	8.50	14.33	40.63	36.54	
<b>Participants Recommended Cut Point* - 2 SEs</b>		656	677	702	<b>- 2 SEs</b>
Percent of students Below each Performance Level		8.50	20.92	52.58	
Percent of students in each Performance Level	8.50	12.43	31.65	47.42	
<b>Participants Recommended Cut Point* - 3 SEs</b>		654	674	694	<b>- 3 SEs</b>
Percent of students Below each Performance Level		7.47	17.56	39.56	
Percent of students in each Performance Level	7.47	10.09	22.00	60.44	

\*Large Group Medians

## Wisconsin WKCE Grade 8 Science

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		10	8	10	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		690	706	747	
Percent of students in each Performance Level	34.05	34.05 22.08	56.13 40.19	96.32 3.68	<b>+ 3 SEs</b>
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		680	698	737	
Percent of students in each Performance Level	22.83	22.83 22.90	45.72 46.95	92.68 7.32	<b>+ 2 SEs</b>
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		670	690	727	
Percent of students in each Performance Level	15.96	15.96 18.09	34.05 50.75	84.80 15.20	<b>+ 1 SE</b>
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		660	682	717	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	9.52	9.52 15.19	24.72 49.90	74.62 25.38	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		650	674	707	
Percent of students in each Performance Level	5.81	5.81 11.75	17.56 42.25	59.81 40.19	<b>- 1 SE</b>
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		640	666	697	
Percent of students in each Performance Level	3.75	3.75 9.38	13.12 29.49	42.62 57.38	<b>- 2 SEs</b>
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		630	658	687	
Percent of students in each Performance Level	2.22	2.22 6.28	8.50 23.04	31.54 68.46	<b>- 3 SEs</b>

\*Large Group Medians

## Wisconsin WKCE Grade 8 Science

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <sub>cut score + easurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		10.20	8.41	12.61	
<b>Participants Recommended Cut Point* + 3 SEs</b>		691	707	755	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		36.74	59.81	98.47	
Percent of students in each Performance Level	36.74	23.07	38.66	1.53	
<b>Participants Recommended Cut Point* + 2 SEs</b>		680	699	742	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		22.83	45.72	94.73	
Percent of students in each Performance Level	22.83	22.90	49.01	5.27	
<b>Participants Recommended Cut Point* + 1 SE</b>		670	690	730	<b>+1 SE</b>
Percent of students Below each Performance Level		15.96	34.05	87.78	
Percent of students in each Performance Level	15.96	18.09	53.73	12.22	
<b>Participants Recommended Cut Point*</b>		660	682	717	<b>Participants Recommended Cut Points *</b>
Percent of students Below each Performance Level		9.52	24.72	74.62	
Percent of students in each Performance Level	9.52	15.19	49.90	25.38	
<b>Participants Recommended Cut Point* - 1 SE</b>		650	674	704	<b>- 1 SE</b>
Percent of students Below each Performance Level		5.81	17.56	52.58	
Percent of students in each Performance Level	5.81	11.75	35.01	47.42	
<b>Participants Recommended Cut Point* - 2 SEs</b>		640	665	692	<b>- 2 SEs</b>
Percent of students Below each Performance Level		3.75	11.81	36.74	
Percent of students in each Performance Level	3.75	8.06	24.93	63.26	
<b>Participants Recommended Cut Point* - 3 SEs</b>		629	657	679	<b>- 3 SEs</b>
Percent of students Below each Performance Level		2.22	8.50	22.83	
Percent of students in each Performance Level	2.22	6.28	14.33	77.17	

\*Large Group Medians

# Grade 8 Social Studies

## Wisconsin WKCE Grade 8 Social Studies

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <sub>cut score</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		1.46	1.49	5.03	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		643	666	708	<b>+ 3 SEs</b>
Percent of students in each Performance Level	4.53	4.53	19.12	82.66	
		14.59	63.54	17.34	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		642	665	703	<b>+ 2 SEs</b>
Percent of students in each Performance Level	4.53	4.53	19.12	79.11	
		14.59	59.99	20.89	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		640	663	698	<b>+ 1 SE</b>
Percent of students in each Performance Level	3.77	3.77	17.07	71.50	
		13.29	54.43	28.50	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		639	662	693	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	3.77	3.77	15.15	63.58	
		11.37	48.44	36.42	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		638	661	688	<b>- 1 SE</b>
Percent of students in each Performance Level	3.77	3.77	15.15	51.68	
		11.37	36.54	48.32	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		636	659	683	<b>- 2 SEs</b>
Percent of students in each Performance Level	3.13	3.13	13.37	44.52	
		10.24	31.15	55.48	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		635	658	678	<b>- 3 SEs</b>
Percent of students in each Performance Level	3.13	3.13	11.73	34.54	
		8.60	22.81	65.46	

\*Large Group Medians

## Wisconsin WKCE Grade 8 Social Studies

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		11	7	7	
<b>Participants Recommended Cut Point* + 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	26.16	672 26.16 18.36	683 44.52 44.70	714 89.22 10.78	<b>+ 3 SEs</b>
<b>Participants Recommended Cut Point* + 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	15.15	661 15.15 16.42	676 31.56 51.10	707 82.66 17.34	<b>+ 2 SEs</b>
<b>Participants Recommended Cut Point* + 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	7.63	650 7.63 16.01	669 23.64 47.86	700 71.50 28.50	<b>+1 SE</b>
<b>Participants Recommended Cut Point*</b> Percent of students Below each Performance Level Percent of students in each Performance Level	3.77	639 3.77 11.37	662 15.15 48.44	693 63.58 36.42	<b>Participants Recommended Cut Points*</b>
<b>Participants Recommended Cut Point* - 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	2.06	628 2.06 8.24	655 10.30 37.75	686 48.05 51.95	<b>- 1 SE</b>
<b>Participants Recommended Cut Point* - 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	0.96	617 0.96 5.44	648 6.41 31.26	679 37.67 62.33	<b>- 2 SEs</b>
<b>Participants Recommended Cut Point* - 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	0.55	606 0.55 3.98	641 4.53 21.63	672 26.16 73.84	<b>- 3 SEs</b>

\*Large Group Medians

## Wisconsin WKCE Grade 8 Social Studies

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		11.10	7.16	8.62	
<b>Participants Recommended Cut Point* + 3 SEs</b>					<b>+ 3 SEs</b>
Percent of students Below each Performance Level		672	683	719	
Percent of students in each Performance Level	26.16	26.16	44.52	94.39	
		18.36	49.87	5.61	
<b>Participants Recommended Cut Point* + 2 SEs</b>					<b>+ 2 SEs</b>
Percent of students Below each Performance Level		661	676	710	
Percent of students in each Performance Level	15.15	15.15	31.56	86.03	
		16.42	54.46	13.97	
<b>Participants Recommended Cut Point* + 1 SE</b>					<b>+1 SE</b>
Percent of students Below each Performance Level		650	669	702	
Percent of students in each Performance Level	7.63	7.63	23.64	75.39	
		16.01	51.76	24.61	
<b>Participants Recommended Cut Point*</b>					<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		639	662	693	
Percent of students in each Performance Level	3.77	3.77	15.15	63.58	
		11.37	48.44	36.42	
<b>Participants Recommended Cut Point* - 1 SE</b>					<b>- 1 SE</b>
Percent of students Below each Performance Level		628	655	684	
Percent of students in each Performance Level	2.06	2.06	10.30	44.52	
		8.24	34.22	55.48	
<b>Participants Recommended Cut Point* - 2 SEs</b>					<b>- 2 SEs</b>
Percent of students Below each Performance Level		617	648	676	
Percent of students in each Performance Level	0.96	0.96	6.41	31.56	
		5.44	25.16	68.44	
<b>Participants Recommended Cut Point* - 3 SEs</b>					<b>- 3 SEs</b>
Percent of students Below each Performance Level		606	641	667	
Percent of students in each Performance Level	0.55	0.55	4.53	21.27	
		3.98	16.75	78.73	

\*Large Group Medians



# Grade 10 Reading

## Wisconsin WKCE Grade 10 Reading

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <small>cut score</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		0.59	2.42	5.56	
<b>Participants Recommended Cut Point* + 3 SEs</b>		678	701	728	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		11.48	34.61	60.73	
Percent of students in each Performance Level	11.48	23.13	26.12	39.27	
<b>Participants Recommended Cut Point* + 2 SEs</b>		677	699	722	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		11.48	28.08	60.73	
Percent of students in each Performance Level	11.48	16.61	32.65	39.27	
<b>Participants Recommended Cut Point* + 1 SE</b>		677	696	717	<b>+1 SE</b>
Percent of students Below each Performance Level		11.48	28.08	50.81	
Percent of students in each Performance Level	11.48	16.61	22.73	49.19	
<b>Participants Recommended Cut Point*</b>		676	694	711	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		11.48	22.70	42.02	
Percent of students in each Performance Level	11.48	11.22	19.33	57.98	
<b>Participants Recommended Cut Point* - 1 SE</b>		675	692	705	<b>- 1 SE</b>
Percent of students Below each Performance Level		11.48	22.70	34.61	
Percent of students in each Performance Level	11.48	11.22	11.91	65.39	
<b>Participants Recommended Cut Point* - 2 SEs</b>		675	689	700	<b>- 2 SEs</b>
Percent of students Below each Performance Level		11.48	18.09	28.08	
Percent of students in each Performance Level	11.48	6.61	9.99	71.92	
<b>Participants Recommended Cut Point* - 3 SEs</b>		674	687	694	<b>- 3 SEs</b>
Percent of students Below each Performance Level		9.08	18.09	22.70	
Percent of students in each Performance Level	9.08	9.01	4.61	77.30	

\*Large Group Medians

## Wisconsin WKCE Grade 10 Reading

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		11	11	13	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		709	727	750	<b>+ 3 SEs</b>
Percent of students in each Performance Level	42.02	42.02	60.73	84.04	
		18.71	23.31	15.96	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		698	716	737	<b>+ 2 SEs</b>
Percent of students in each Performance Level		28.08	50.81	72.04	
	28.08	22.73	21.23	27.96	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		687	705	724	<b>+1 SE</b>
Percent of students in each Performance Level		18.09	34.61	60.73	
	18.09	16.52	26.12	39.27	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		676	694	711	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	11.48	11.48	22.70	42.02	
		11.22	19.33	57.98	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		665	683	698	<b>- 1 SE</b>
Percent of students in each Performance Level		5.63	14.47	28.08	
	5.63	8.84	13.61	71.92	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		654	672	685	<b>- 2 SEs</b>
Percent of students in each Performance Level		3.31	9.08	18.09	
	3.31	5.77	9.01	81.91	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		643	661	672	<b>- 3 SEs</b>
Percent of students in each Performance Level		1.84	4.40	9.08	
	1.84	2.56	4.68	90.92	

\*Large Group Medians

## Wisconsin WKCE Grade 10 Reading

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		11.02	11.26	14.14	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		709	728	753	<b>+ 3 SEs</b>
Percent of students in each Performance Level	42.02	42.02	60.73	84.04	
		18.71	23.31	15.96	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		698	717	739	<b>+ 2 SEs</b>
Percent of students in each Performance Level	28.08	28.08	50.81	72.04	
		22.73	21.23	27.96	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		687	705	725	<b>+1 SE</b>
Percent of students in each Performance Level	18.09	18.09	34.61	60.73	
		16.52	26.12	39.27	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		676	694	711	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	11.48	11.48	22.70	42.02	
		11.22	19.33	57.98	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		665	683	697	<b>- 1 SE</b>
Percent of students in each Performance Level	5.63	5.63	14.47	28.08	
		8.84	13.61	71.92	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		654	671	683	<b>- 2 SEs</b>
Percent of students in each Performance Level	3.31	3.31	9.08	14.47	
		5.77	5.39	85.53	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		643	660	669	<b>- 3 SEs</b>
Percent of students in each Performance Level	1.84	1.84	4.40	7.14	
		2.56	2.74	92.86	

\*Large Group Medians

# Grade 10 Language Arts

## Wisconsin WKCE Grade 10 Language

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <small>cut score</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		0.66	2.62	3.86	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		674	704	752	<b>+ 3 SEs</b>
Percent of students in each Performance Level	8.58	8.58	35.31	88.64	
		26.73	53.33	11.36	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		673	701	748	<b>+ 2 SEs</b>
Percent of students in each Performance Level	8.58	8.58	28.65	80.55	
		20.07	51.91	19.45	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		673	699	744	<b>+1 SE</b>
Percent of students in each Performance Level	8.58	8.58	28.65	80.55	
		20.07	51.91	19.45	
<b>Participants Recommended Cut Point*</b>					<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		672	696	740	
Percent of students in each Performance Level	8.58	8.58	28.65	80.55	
		20.07	51.91	19.45	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		671	693	736	<b>- 1 SE</b>
Percent of students in each Performance Level	8.58	8.58	23.04	71.08	
		14.46	48.04	28.92	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		671	691	732	<b>- 2 SEs</b>
Percent of students in each Performance Level	8.58	8.58	23.04	71.08	
		14.46	48.04	28.92	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		670	688	728	<b>- 3 SEs</b>
Percent of students in each Performance Level	6.53	6.53	18.32	61.21	
		11.79	42.89	38.79	

\*Large Group Medians

## Wisconsin WKCE Grade 10 Language

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		12	13	18	
<b>Participants Recommended Cut Point* + 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	43.01	708 43.01 28.07	735 71.08 26.86	794 97.93 2.07	<b>+ 3 SEs</b>
<b>Participants Recommended Cut Point* + 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	28.65	696 28.65 32.57	722 61.21 33.35	776 94.57 5.43	<b>+ 2 SEs</b>
<b>Participants Recommended Cut Point* + 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	14.41	684 14.41 28.60	709 43.01 45.63	758 88.64 11.36	<b>+1 SE</b>
<b>Participants Recommended Cut Point*</b> Percent of students Below each Performance Level Percent of students in each Performance Level	8.58	672 8.58 20.07	696 28.65 51.91	740 80.55 19.45	<b>Participants Recommended Cut Points*</b>
<b>Participants Recommended Cut Point* - 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	3.60	660 3.60 10.80	683 14.41 46.81	722 61.21 38.79	<b>- 1 SE</b>
<b>Participants Recommended Cut Point* - 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	1.84	648 1.84 4.69	670 6.53 28.78	704 35.31 64.69	<b>- 2 SEs</b>
<b>Participants Recommended Cut Point* - 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	1.24	636 1.24 2.37	657 3.60 14.72	686 18.32 81.68	<b>- 3 SEs</b>

\*Large Group Medians

## Wisconsin WKCE Grade 10 Language

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		12.02	13.26	18.41	
<b>Participants Recommended Cut Point* + 3 SEs</b>		708	736	795	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		43.01	71.08	97.93	
Percent of students in each Performance Level	43.01	28.07	26.86	2.07	
<b>Participants Recommended Cut Point* + 2 SEs</b>		696	723	777	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		28.65	61.21	94.57	
Percent of students in each Performance Level	28.65	32.57	33.35	5.43	
<b>Participants Recommended Cut Point* + 1 SE</b>		684	709	758	<b>+1 SE</b>
Percent of students Below each Performance Level		14.41	43.01	88.64	
Percent of students in each Performance Level	14.41	28.60	45.63	11.36	
<b>Participants Recommended Cut Point*</b>		672	696	740	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		8.58	28.65	80.55	
Percent of students in each Performance Level	8.58	20.07	51.91	19.45	
<b>Participants Recommended Cut Point* - 1 SE</b>		660	683	722	<b>- 1 SE</b>
Percent of students Below each Performance Level		3.60	14.41	61.21	
Percent of students in each Performance Level	3.60	10.80	46.81	38.79	
<b>Participants Recommended Cut Point* - 2 SEs</b>		648	669	703	<b>- 2 SEs</b>
Percent of students Below each Performance Level		1.84	6.53	35.31	
Percent of students in each Performance Level	1.84	4.69	28.78	64.69	
<b>Participants Recommended Cut Point* - 3 SEs</b>		636	656	685	<b>- 3 SEs</b>
Percent of students Below each Performance Level		1.24	3.60	18.32	
Percent of students in each Performance Level	1.24	2.37	14.72	81.68	

\*Large Group Medians



# Grade 10 Mathematics

## Wisconsin WKCE Grade 10 Mathematics

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <small>cut score</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		3.22	2.57	3.58	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		712	731	780	<b>+ 3 SEs</b>
Percent of students in each Performance Level	18.62	18.62	35.07	79.77	
		16.44	44.70	20.23	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		708	728	776	<b>+ 2 SEs</b>
Percent of students in each Performance Level	16.55	16.55	31.83	79.77	
		15.28	47.94	20.23	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		705	726	773	<b>+1 SE</b>
Percent of students in each Performance Level	16.55	16.55	28.62	74.99	
		12.07	46.37	25.01	
<b>Participants Recommended Cut Point*</b>					<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		702	723	769	
Percent of students in each Performance Level	14.67	14.67	25.87	74.99	
		11.21	49.12	25.01	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		699	720	765	<b>- 1 SE</b>
Percent of students in each Performance Level	12.92	12.92	25.87	70.01	
		12.95	44.13	29.99	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		696	718	762	<b>- 2 SEs</b>
Percent of students in each Performance Level	12.92	12.92	23.28	65.05	
		10.36	41.77	34.95	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		692	715	758	<b>- 3 SEs</b>
Percent of students in each Performance Level	11.24	11.24	20.89	60.24	
		9.65	39.36	39.76	

\*Large Group Medians

## Wisconsin WKCE Grade 10 Mathematics

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		14	11	13	
<b>Participants Recommended Cut Point* + 3 SEs</b>		744	756	808	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		46.69	60.24	95.85	
Percent of students in each Performance Level	46.69	13.56	35.61	4.15	
<b>Participants Recommended Cut Point* + 2 SEs</b>		730	745	795	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		31.83	46.69	88.77	
Percent of students in each Performance Level	31.83	14.86	42.08	11.23	
<b>Participants Recommended Cut Point* + 1 SE</b>		716	734	782	<b>+1 SE</b>
Percent of students Below each Performance Level		23.28	35.07	84.54	
Percent of students in each Performance Level	23.28	11.78	49.47	15.46	
<b>Participants Recommended Cut Point*</b>		702	723	769	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		14.67	25.87	74.99	
Percent of students in each Performance Level	14.67	11.21	49.12	25.01	
<b>Participants Recommended Cut Point* - 1 SE</b>		688	712	756	<b>- 1 SE</b>
Percent of students Below each Performance Level		9.64	18.62	60.24	
Percent of students in each Performance Level	9.64	8.98	41.62	39.76	
<b>Participants Recommended Cut Point* - 2 SEs</b>		674	701	743	<b>- 2 SEs</b>
Percent of students Below each Performance Level		5.87	14.67	46.69	
Percent of students in each Performance Level	5.87	8.80	32.02	53.31	
<b>Participants Recommended Cut Point* - 3 SEs</b>		660	690	730	<b>- 3 SEs</b>
Percent of students Below each Performance Level		3.90	9.64	31.83	
Percent of students in each Performance Level	3.90	5.75	22.18	68.17	

\*Large Group Medians

## Wisconsin WKCE Grade 10 Mathematics

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		14.36	11.30	13.48	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		745	757	809	<b>+ 3 SEs</b>
Percent of students in each Performance Level	46.69	46.69	60.24	95.85	
		13.56	35.61	4.15	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		731	746	796	<b>+ 2 SEs</b>
Percent of students in each Performance Level	35.07	35.07	50.94	88.77	
		15.87	37.83	11.23	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		716	734	782	<b>+ 1 SE</b>
Percent of students in each Performance Level	23.28	23.28	35.07	84.54	
		11.78	49.47	15.46	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		702	723	769	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	14.67	14.67	25.87	74.99	
		11.21	49.12	25.01	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		688	712	756	<b>- 1 SE</b>
Percent of students in each Performance Level	9.64	9.64	18.62	60.24	
		8.98	41.62	39.76	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		673	700	742	<b>- 2 SEs</b>
Percent of students in each Performance Level	5.87	5.87	12.92	46.69	
		7.05	33.76	53.31	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		659	689	729	<b>- 3 SEs</b>
Percent of students in each Performance Level	3.90	3.90	9.64	31.83	
		5.75	22.18	68.17	

\*Large Group Medians

# Grade 10 Science

## Wisconsin WKCE Grade 10 Science

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <sub>cut score</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		1.41	2.26	5.88	
<b>Participants Recommended Cut Point* + 3 SEs</b>		701	717	758	<b>+ 3 SEs</b>
Percent of students Below each Performance Level		19.79	33.52	85.72	
Percent of students in each Performance Level	19.79	13.73	52.20	14.28	
<b>Participants Recommended Cut Point* + 2 SEs</b>		700	715	752	<b>+ 2 SEs</b>
Percent of students Below each Performance Level		19.79	33.52	77.14	
Percent of students in each Performance Level	19.79	13.73	43.62	22.86	
<b>Participants Recommended Cut Point* + 1 SE</b>		698	712	746	<b>+1 SE</b>
Percent of students Below each Performance Level		16.99	29.70	72.20	
Percent of students in each Performance Level	16.99	12.71	42.50	27.80	
<b>Participants Recommended Cut Point*</b>		697	710	740	<b>Participants Recommended Cut Points*</b>
Percent of students Below each Performance Level		16.99	26.07	62.15	
Percent of students in each Performance Level	16.99	9.08	36.08	37.85	
<b>Participants Recommended Cut Point* - 1 SE</b>		696	708	734	<b>- 1 SE</b>
Percent of students Below each Performance Level		16.99	26.07	57.21	
Percent of students in each Performance Level	16.99	9.08	31.15	42.79	
<b>Participants Recommended Cut Point* - 2 SEs</b>		694	705	728	<b>- 2 SEs</b>
Percent of students Below each Performance Level		14.53	22.75	47.17	
Percent of students in each Performance Level	14.53	8.22	24.42	52.83	
<b>Participants Recommended Cut Point* - 3 SEs</b>		693	703	722	<b>- 3 SEs</b>
Percent of students Below each Performance Level		14.53	22.75	42.32	
Percent of students in each Performance Level	14.53	8.22	19.57	57.68	

\*Large Group Medians

## Wisconsin WKCE Grade 10 Science

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		14	12	11	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		739	746	773	<b>+ 3 SEs</b>
Percent of students in each Performance Level	62.15	62.15	72.20	92.71	
		10.05	20.52	7.29	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		725	734	762	<b>+ 2 SEs</b>
Percent of students in each Performance Level	42.32	42.32	57.21	85.72	
		14.89	28.51	14.28	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		711	722	751	<b>+1 SE</b>
Percent of students in each Performance Level	29.70	29.70	42.32	77.14	
		12.62	34.82	22.86	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		697	710	740	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	16.99	16.99	26.07	62.15	
		9.08	36.08	37.85	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		683	698	729	<b>- 1 SE</b>
Percent of students in each Performance Level	10.45	10.45	16.99	47.17	
		6.54	30.18	52.83	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		669	686	718	<b>- 2 SEs</b>
Percent of students in each Performance Level	5.94	5.94	10.45	33.52	
		4.51	23.07	66.48	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		655	674	707	<b>- 3 SEs</b>
Percent of students in each Performance Level	3.93	3.93	7.29	26.07	
		3.35	18.78	73.93	

\*Large Group Medians

## Wisconsin WKCE Grade 10 Science

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		14.07	12.21	12.47	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		739	747	777	<b>+ 3 SEs</b>
Percent of students in each Performance Level	62.15	62.15	72.20	95.25	
		10.05	23.05	4.75	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		725	734	765	<b>+ 2 SEs</b>
Percent of students in each Performance Level	42.32	42.32	57.21	89.49	
		14.89	32.28	10.51	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		711	722	752	<b>+1 SE</b>
Percent of students in each Performance Level	29.70	29.70	42.32	77.14	
		12.62	34.82	22.86	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		697	710	740	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	16.99	16.99	26.07	62.15	
		9.08	36.08	37.85	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		683	698	728	<b>- 1 SE</b>
Percent of students in each Performance Level	10.45	10.45	16.99	47.17	
		6.54	30.18	52.83	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		669	686	715	<b>- 2 SEs</b>
Percent of students in each Performance Level	5.94	5.94	10.45	33.52	
		4.51	23.07	66.48	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		655	673	703	<b>- 3 SEs</b>
Percent of students in each Performance Level	3.93	3.93	7.29	22.75	
		3.35	15.46	77.25	

\*Large Group Medians



# Grade 10 Social Studies

## Wisconsin WKCE Grade 10 Social Studies

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of the Cut Score

Standard Error (SE) <small>cut score</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
			4.70	2.00	1.76
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		703	701	719	<b>+ 3 SEs</b>
Percent of students in each Performance Level	37.20	37.20 -3.38	33.82 29.50	63.32 36.68	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		698	699	718	<b>+ 2 SEs</b>
Percent of students in each Performance Level	27.85	27.85 2.79	30.65 32.68	63.32 36.68	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		694	697	716	<b>+1 SE</b>
Percent of students in each Performance Level	22.79	22.79 5.06	27.85 30.41	58.27 41.73	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		689	695	714	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	18.42	18.42 6.77	25.20 28.18	53.38 46.62	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		684	693	712	<b>- 1 SE</b>
Percent of students in each Performance Level	13.12	13.12 9.67	22.79 30.59	53.38 46.62	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		680	691	710	<b>- 2 SEs</b>
Percent of students in each Performance Level	10.15	10.15 10.36	20.51 28.45	48.96 51.04	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		675	689	709	<b>- 3 SEs</b>
Percent of students in each Performance Level	7.62	7.62 10.80	18.42 26.46	44.89 55.11	

\*Large Group Medians

## Wisconsin WKCE Grade 10 Social Studies

Recommended Cut Points\* Plus/Minus Selected Standard Errors (SEs) of Measurement

Standard Error (SE) <sub>measurement</sub>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
<b>Participants Recommended Cut Point* + 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	48.96	710 48.96 4.42	713 53.38 31.26	735 84.64 15.36	<b>+ 3 SEs</b>
<b>Participants Recommended Cut Point* + 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	37.20	703 37.20 7.69	707 44.89 34.49	728 79.38 20.62	<b>+ 2 SEs</b>
<b>Participants Recommended Cut Point* + 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	25.20	696 25.20 8.63	701 33.82 34.80	721 68.63 31.37	<b>+1 SE</b>
<b>Participants Recommended Cut Point*</b> Percent of students Below each Performance Level Percent of students in each Performance Level	18.42	689 18.42 6.77	695 25.20 28.18	714 53.38 46.62	<b>Participants Recommended Cut Points*</b>
<b>Participants Recommended Cut Point* - 1 SE</b> Percent of students Below each Performance Level Percent of students in each Performance Level	11.56	682 11.56 6.86	689 18.42 26.46	707 44.89 55.11	<b>- 1 SE</b>
<b>Participants Recommended Cut Point* - 2 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	7.62	675 7.62 5.50	683 13.12 17.53	700 30.65 69.35	<b>- 2 SEs</b>
<b>Participants Recommended Cut Point* - 3 SEs</b> Percent of students Below each Performance Level Percent of students in each Performance Level	5.34	668 5.34 3.50	677 8.84 13.95	693 22.79 77.21	<b>- 3 SEs</b>

\*Large Group Medians

## Wisconsin WKCE Grade 10 Social Studies

Recommended Cut Points\* Plus/Minus Selected Combined Standard Errors (SEs) of the Cut Score and of Measurement

Standard Error (SE) <small>cut score + easurement</small>	Minimal Performance	Basic	Proficient	Advanced	Standard Error Calculations
		8.43	6.32	7.22	
<b>Participants Recommended Cut Point* + 3 SEs</b>					
Percent of students Below each Performance Level		714	714	736	<b>+ 3 SEs</b>
Percent of students in each Performance Level	53.38	53.38	53.38	84.64	
		0.00	31.26	15.36	
<b>Participants Recommended Cut Point* + 2 SEs</b>					
Percent of students Below each Performance Level		706	708	728	<b>+ 2 SEs</b>
Percent of students in each Performance Level	40.95	40.95	44.89	79.38	
		3.93	34.49	20.62	
<b>Participants Recommended Cut Point* + 1 SE</b>					
Percent of students Below each Performance Level		697	701	721	<b>+1 SE</b>
Percent of students in each Performance Level	27.85	27.85	33.82	68.63	
		5.97	34.80	31.37	
<b>Participants Recommended Cut Point*</b>					
Percent of students Below each Performance Level		689	695	714	<b>Participants Recommended Cut Points*</b>
Percent of students in each Performance Level	18.42	18.42	25.20	53.38	
		6.77	28.18	46.62	
<b>Participants Recommended Cut Point* - 1 SE</b>					
Percent of students Below each Performance Level		681	689	707	<b>- 1 SE</b>
Percent of students in each Performance Level	11.56	11.56	18.42	44.89	
		6.86	26.46	55.11	
<b>Participants Recommended Cut Point* - 2 SEs</b>					
Percent of students Below each Performance Level		672	682	700	<b>- 2 SEs</b>
Percent of students in each Performance Level	6.50	6.50	11.56	30.65	
		5.06	19.09	69.35	
<b>Participants Recommended Cut Point* - 3 SEs</b>					
Percent of students Below each Performance Level		664	676	692	<b>- 3 SEs</b>
Percent of students in each Performance Level	4.37	4.37	8.84	20.51	
		4.47	11.67	79.49	

\*Large Group Medians

## **Section H**

1. Grade 4 Reading Detailed Results
2. Grade 4 Reading Impact, Rounds 1, 2, and 3
3. Grade 4 Reading Graphical Representations of Participants' Judgments and Standard Errors

## Grade 4 Reading Detailed Results

**Wisconsin WKCE Grade 4 Reading  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	5	10	25
2	17	39	47
3	7	16	34
4	7	19	40
5	6	20	39
6	6	19	38
7	6	19	41
Median	6	19	39
Minimum	5	10	25
Maximum	17	39	47

**Wisconsin WKCE Grade 4 Reading  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	9	35
2	5	10	15
3	6	11	48
4	8	27	40
5	7	13	38
6	8	19	53
7	12	22	41
Median	7	13	40
Minimum	4	9	15
Maximum	12	27	53



**Wisconsin WKCE Grade 4 Reading  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	10	19	48
2	19	29	39
3	15	35	48
4	12	23	40
5	12	18	31
6	5	13	39
7	11	19	40
Median	12	19	40
Minimum	5	13	31
Maximum	19	35	48

**Wisconsin WKCE Grade 4 Reading Round 1 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	7	19	40
Minimum	4	9	15
Maximum	19	39	53
SD	4.21	7.90	8.35

**Wisconsin WKCE Grade 4 Reading  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	559	594	623
2	615	636	653
3	585	607	632
4	585	616	637
5	578	618	636
6	578	616	636
7	578	616	643
Median	578	616	636
Minimum	559	594	623
Maximum	615	636	653

**Wisconsin WKCE Grade 4 Reading  
Group 2 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	558	592	633
2	559	594	606
3	578	594	655
4	592	625	637
5	585	601	636
6	592	616	672
7	599	621	643
Median	585	601	637
Minimum	558	592	606
Maximum	599	625	672

**Wisconsin WKCE Grade 4 Reading  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	594	616	655
2	616	625	636
3	606	633	655
4	599	622	637
5	599	615	629
6	559	601	636
7	594	616	637
Median	599	616	637
Minimum	559	601	629
Maximum	616	633	655

**Wisconsin WKCE Grade 4 Reading Round 1 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	585	616	637
Minimum	558	592	606
Maximum	616	636	672
SD	17.38	12.86	13.62

## Wisconsin WKCE Grade 4 Reading Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	6	19	39
Group 2 Median	7	13	40
Group 3 Median	12	19	40
Large Group	7	19	40

**Wisconsin WKCE Grade 4 Reading  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	10	40
2	10	19	47
3	6	17	39
4	6	19	49
5	6	20	46
6	6	19	35
7	6	19	43
Median	6	19	43
Minimum	6	10	35
Maximum	10	20	49



**Wisconsin WKCE Grade 4 Reading  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	11	41
2	6	11	16
3	6	12	48
4	8	19	48
5	7	16	45
6	7	14	50
7	8	19	41
Median	7	14	45
Minimum	6	11	16
Maximum	8	19	50

**Wisconsin WKCE Grade 4 Reading  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	19	49
2	8	19	48
3	8	18	48
4	9	19	49
5	7	18	48
6	6	16	43
7	7	19	48
Median	7	19	48
Minimum	6	16	43
Maximum	9	19	49

**Wisconsin WKCE Grade 4 Reading Round 2 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	7	19	47
Minimum	6	10	16
Maximum	10	20	50
SD	1.16	3.22	7.57

**Wisconsin WKCE Grade 4 Reading  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	578	594	637
2	594	616	653
3	578	615	636
4	578	616	656
5	578	618	650
6	578	616	633
7	578	616	644
Median	578	616	644
Minimum	578	594	633
Maximum	594	618	656

**Wisconsin WKCE Grade 4 Reading  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	578	594	643
2	578	594	607
3	578	599	655
4	592	616	655
5	585	607	649
6	585	602	658
7	592	616	643
Median	585	602	649
Minimum	578	594	607
Maximum	592	616	658

**Wisconsin WKCE Grade 4 Reading  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	585	616	656
2	592	616	655
3	592	615	655
4	592	616	656
5	585	615	655
6	578	607	644
7	585	616	655
Median	585	616	655
Minimum	578	607	644
Maximum	592	616	656

**Wisconsin WKCE Grade 4 Reading Round 2 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	585	616	653
Minimum	578	594	607
Maximum	594	618	658
SD	6.19	8.71	11.84

## Wisconsin WKCE Grade 4 Reading Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	6	19	43
Group 2 Median	7	14	45
Group 3 Median	7	19	48
Large Group	7	19	47



**Wisconsin WKCE Grade 4 Reading  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	10	40
2	10	19	47
3	6	15	40
4	6	19	49
5	6	20	49
6	6	19	43
7	6	19	47
Median	6	19	47
Minimum	6	10	40
Maximum	10	20	49

**Wisconsin WKCE Grade 4 Reading  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	11	45
2	7	12	17
3	6	11	48
4	7	16	48
5	7	16	45
6	7	17	50
7	7	19	47
Median	7	16	47
Minimum	6	11	17
Maximum	7	19	50

**Wisconsin WKCE Grade 4 Reading  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	19	50
2	8	19	48
3	7	19	47
4	9	19	49
5	7	18	48
6	6	16	47
7	7	19	48
Median	7	19	48
Minimum	6	16	47
Maximum	9	19	50

**Wisconsin WKCE Grade 4 Reading Round 3 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	7	19	47
Minimum	6	10	17
Maximum	10	20	50
SD	1.06	3.18	7.07

**Wisconsin WKCE Grade 4 Reading  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	578	594	637
2	594	616	653
3	578	606	637
4	578	616	656
5	578	618	656
6	578	616	644
7	578	616	653
Median	578	616	653
Minimum	578	594	637
Maximum	594	618	656

**Wisconsin WKCE Grade 4 Reading  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	578	594	649
2	585	599	615
3	578	594	655
4	585	607	655
5	585	607	649
6	585	615	658
7	585	616	653
Median	585	607	653
Minimum	578	594	615
Maximum	585	616	658

**Wisconsin WKCE Grade 4 Reading  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	585	616	658
2	592	616	655
3	585	616	653
4	592	616	656
5	585	615	655
6	578	607	653
7	585	616	655
Median	585	616	655
Minimum	578	607	653
Maximum	592	616	658

**Wisconsin WKCE Grade 4 Reading Round 3 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	585	616	653
Minimum	578	594	615
Maximum	594	618	658
SD	5.14	8.52	10.04



## Wisconsin WKCE Grade 4 Reading Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	6	19	47
Group 2 Median	7	16	47
Group 3 Median	7	19	48
Large Group	7	19	47

## Grade 4 Reading Impact, Rounds 1, 2, and 3

Wisconsin Grade 4 Reading

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	4.36	12.52	22.99	60.13
Free & Reduced Lunch	8.69	21.38	29.87	40.06
Students of Color	9.67	23.90	30.56	35.87
Majority	2.87	9.32	20.87	66.94

Wisconsin Grade 4 Reading

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	4.36	12.52	43.87	39.26
Free & Reduced Lunch	8.69	21.38	48.54	21.39
Students of Color	9.67	23.90	47.34	19.10
Majority	2.87	9.32	42.90	44.92

Wisconsin Grade 4 Reading

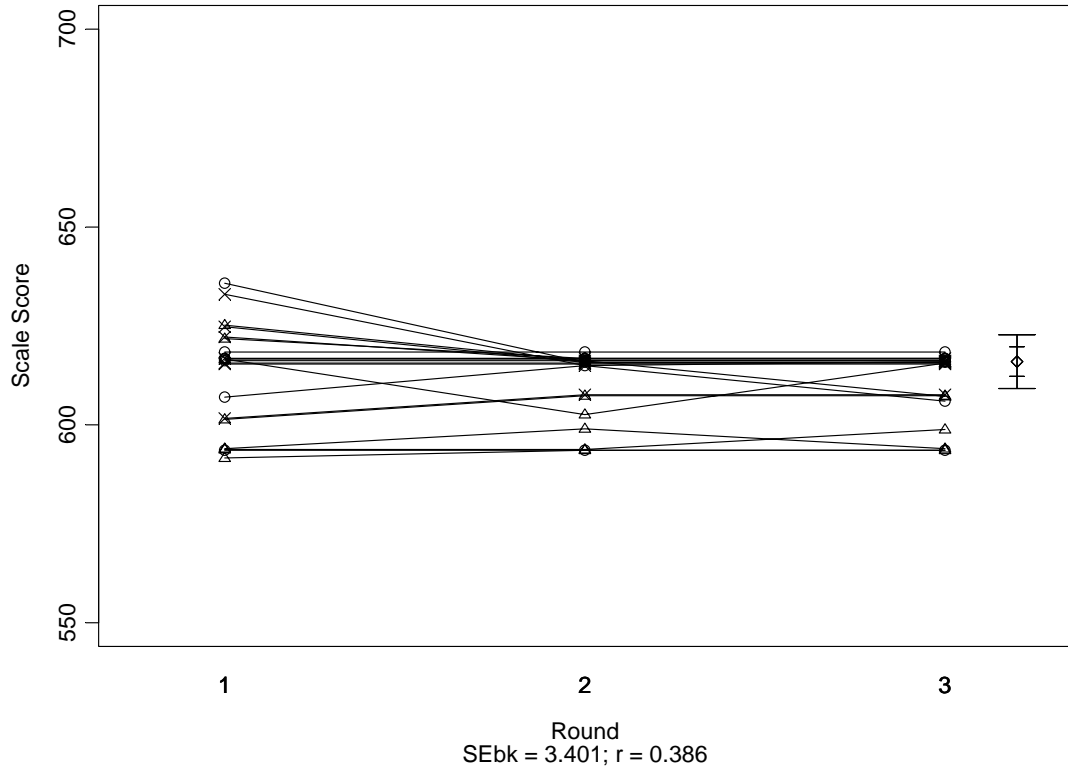
Large Group Round 3 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	4.36	12.52	43.87	39.26
Free & Reduced Lunch	8.69	21.38	48.54	21.39
Students of Color	9.67	23.90	47.34	19.10
Majority	2.87	9.32	42.90	44.92

Grade 4 Reading Graphical Representations of Participants'  
Judgments and Standard Errors



# Wisconsin Grade 4 Reading Proficient Cutpoint







## **Section I**

1. Grade 8 Reading Detailed Results
2. Grade 8 Reading Impact, Rounds 1, 2, and 3
3. Grade 8 Reading Graphical Representations of Participants' Judgments and Standard Errors

## Grade 8 Reading Detailed Results

**Wisconsin WKCE Grade 8 Reading  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	24	42
2	11	33	46
3	11	24	41
4	12	34	48
5	12	26	48
6	29	39	55
Median	12	29.5	47
Minimum	11	24	41
Maximum	29	39	55

**Wisconsin WKCE Grade 8 Reading  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	19	41
2	23	31	42
3	10	33	44
4	20	37	47
5	2	6	34
6	6	17	45
Median	8	25	43
Minimum	2	6	34
Maximum	23	37	47

**Wisconsin WKCE Grade 8 Reading  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	10	23	46
2	7	16	37
3	14	22	38
4	6	19	40
5	11	24	41
6	14	36	54
7	16	34	48
Median	11	23	41
Minimum	6	16	37
Maximum	16	36	54

**Wisconsin WKCE Grade 8 Reading Round 1 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	11	24	44
Minimum	2	6	34
Maximum	29	39	55
SD	6.42	8.68	5.39

**Wisconsin WKCE Grade 8 Reading  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	644	660	690
2	642	668	703
3	642	660	685
4	644	669	715
5	644	661	715
6	664	682	739
Median	644	664	713
Minimum	642	660	685
Maximum	664	682	739



**Wisconsin WKCE Grade 8 Reading  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	626	653	685
2	660	664	690
3	638	668	698
4	654	679	713
5	592	626	669
6	626	652	701
Median	631	661	696
Minimum	592	626	669
Maximum	660	679	713

**Wisconsin WKCE Grade 8 Reading  
Group 3 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	638	660	703
2	627	651	679
3	648	657	679
4	626	653	684
5	642	660	685
6	648	672	737
7	651	669	715
Median	642	660	685
Minimum	626	651	679
Maximum	651	672	737

**Wisconsin WKCE Grade 8 Reading Round 1 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	642	660	698
Minimum	592	626	669
Maximum	664	682	739
SD	15.70	12.11	19.33

## Wisconsin WKCE Grade 8 Reading Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	12	29.5	47
Group 2 Median	8	25	43
Group 3 Median	11	23	41
Large Group	11	24	44

**Wisconsin WKCE Grade 8 Reading  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	30	51
2	11	30	53
3	11	30	48
4	12	30	48
5	12	28	52
6	14	29	46
Median	12	30	49.5
Minimum	11	28	46
Maximum	14	30	53

**Wisconsin WKCE Grade 8 Reading  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	20	42
2	21	29	42
3	9	19	44
4	9	25	43
5	9	17	43
6	9	23	43
Median	9	21.5	43
Minimum	7	17	42
Maximum	21	29	44

**Wisconsin WKCE Grade 8 Reading  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	18	48
2	7	16	47
3	10	20	42
4	6	19	40
5	8	23	46
6	5	20	30
7	8	16	48
Median	7	19	46
Minimum	5	16	30
Maximum	10	23	48

**Wisconsin WKCE Grade 8 Reading Round 2 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	9	23	46
Minimum	5	16	30
Maximum	21	30	53
SD	3.58	5.34	5.17



**Wisconsin WKCE Grade 8 Reading  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	644	664	725
2	642	664	734
3	642	664	715
4	644	664	715
5	644	662	732
6	648	664	703
Median	644	664	720
Minimum	642	662	703
Maximum	648	664	734

**Wisconsin WKCE Grade 8 Reading  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	627	654	690
2	654	664	690
3	633	653	698
4	633	661	696
5	633	652	696
6	633	660	696
Median	633	654	696
Minimum	627	652	690
Maximum	654	664	698

**Wisconsin WKCE Grade 8 Reading  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	627	653	715
2	627	651	713
3	638	654	690
4	626	653	684
5	631	660	703
6	624	654	664
7	631	651	715
Median	627	653	703
Minimum	624	651	664
Maximum	638	660	715

**Wisconsin WKCE Grade 8 Reading Round 2 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	633	660	703
Minimum	624	651	664
Maximum	654	664	734
SD	8.40	5.19	17.58

## Wisconsin WKCE Grade 8 Reading Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	12	30	49.5
Group 2 Median	9	21.5	43
Group 3 Median	7	19	46
Large Group	9	23	46

**Wisconsin WKCE Grade 8 Reading  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	28	51
2	11	30	53
3	11	28	48
4	6	20	48
5	12	28	52
6	13	20	32
Median	11	28	49.5
Minimum	6	20	32
Maximum	13	30	53

**Wisconsin WKCE Grade 8 Reading  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	20	42
2	25	33	42
3	9	19	44
4	6	25	40
5	6	17	43
6	9	23	43
Median	8	21.5	42.5
Minimum	6	17	40
Maximum	25	33	44

**Wisconsin WKCE Grade 8 Reading  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	19	48
2	7	16	47
3	10	21	44
4	6	20	40
5	10	23	47
6	6	25	30
7	8	16	48
Median	8	20	47
Minimum	6	16	30
Maximum	10	25	48



**Wisconsin WKCE Grade 8 Reading Round 3 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	9	21	44
Minimum	6	16	30
Maximum	25	33	53
SD	4.38	4.92	6.04

**Wisconsin WKCE Grade 8 Reading  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	642	662	725
2	642	664	734
3	642	662	715
4	626	654	715
5	644	662	732
6	644	654	667
Median	642	662	720
Minimum	626	654	667
Maximum	644	664	734

**Wisconsin WKCE Grade 8 Reading  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	627	654	690
2	661	668	690
3	633	653	698
4	626	661	684
5	626	652	696
6	633	660	696
Median	631	654	690
Minimum	626	652	684
Maximum	661	668	698

**Wisconsin WKCE Grade 8 Reading  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	631	653	715
2	627	651	713
3	638	654	698
4	626	654	684
5	638	660	713
6	626	661	664
7	631	651	715
Median	631	654	713
Minimum	626	651	664
Maximum	638	661	715

**Wisconsin WKCE Grade 8 Reading Round 3 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	633	654	698
Minimum	626	651	664
Maximum	661	668	734
SD	9.25	5.03	19.94

## Wisconsin WKCE Grade 8 Reading Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	11	28	49.5
Group 2 Median	8	21.5	42.5
Group 3 Median	8	20	47
Large Group	9	21	44

## Grade 8 Reading Impact, Rounds 1, 2, and 3

Wisconsin Grade 8 Reading

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	10.04	10.94	37.28	41.74
Free & Reduced Lunch	23.01	18.69	37.87	20.43
Students of Color	26.30	20.53	35.17	17.99
Majority	6.24	8.69	37.78	47.30



Wisconsin Grade 8 Reading

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	7.25	13.73	43.87	35.16
Free & Reduced Lunch	17.34	24.36	42.15	16.15
Students of Color	19.68	27.15	38.89	14.27
Majority	4.34	10.58	45.03	40.05

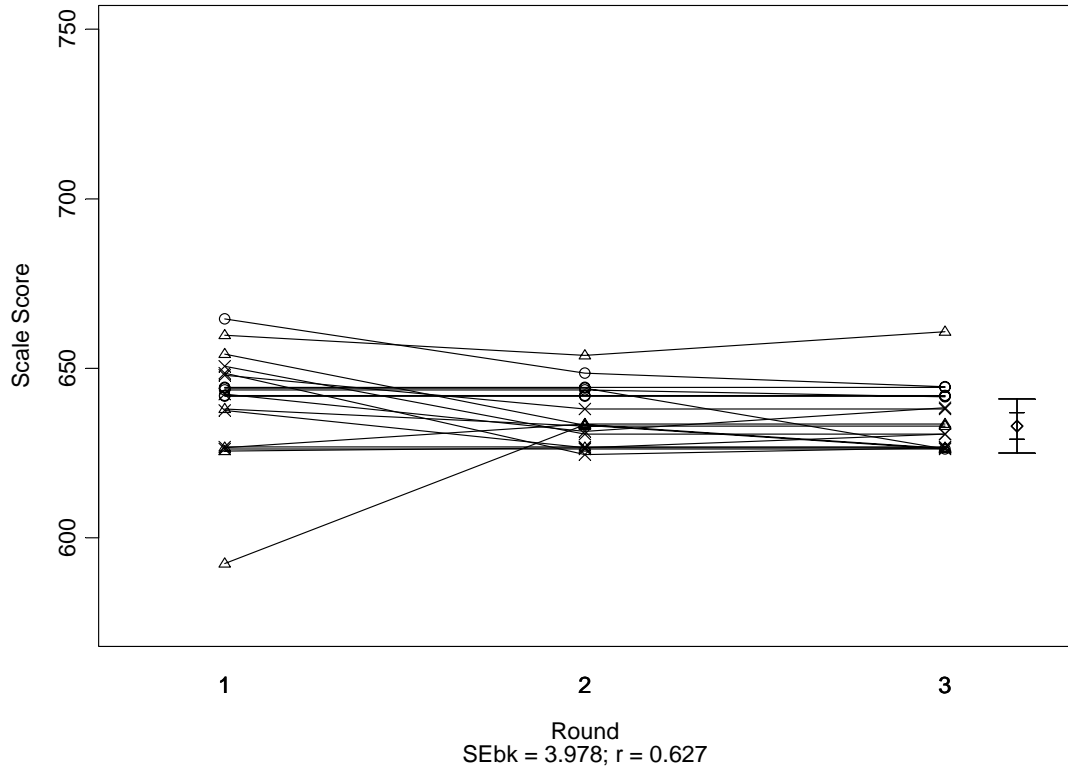
Wisconsin Grade 8 Reading

Large Group Round 3 Impact Data

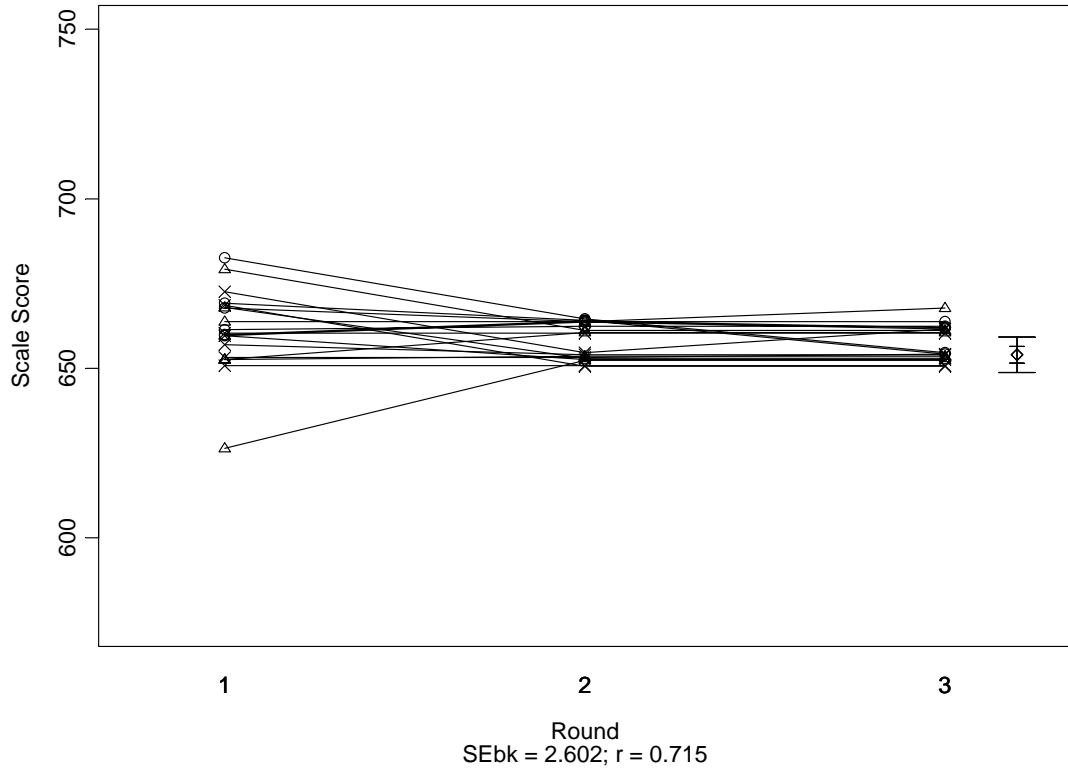
	Minimal Performance	Basic	Proficient	Advanced
All Students	7.25	8.54	42.47	41.74
Free & Reduced Lunch	17.34	16.06	46.17	20.43
Students of Color	19.68	18.36	43.96	17.99
Majority	4.34	6.24	42.12	47.30

Grade 8 Reading Graphical Representations of Participants'  
Judgments and Standard Errors

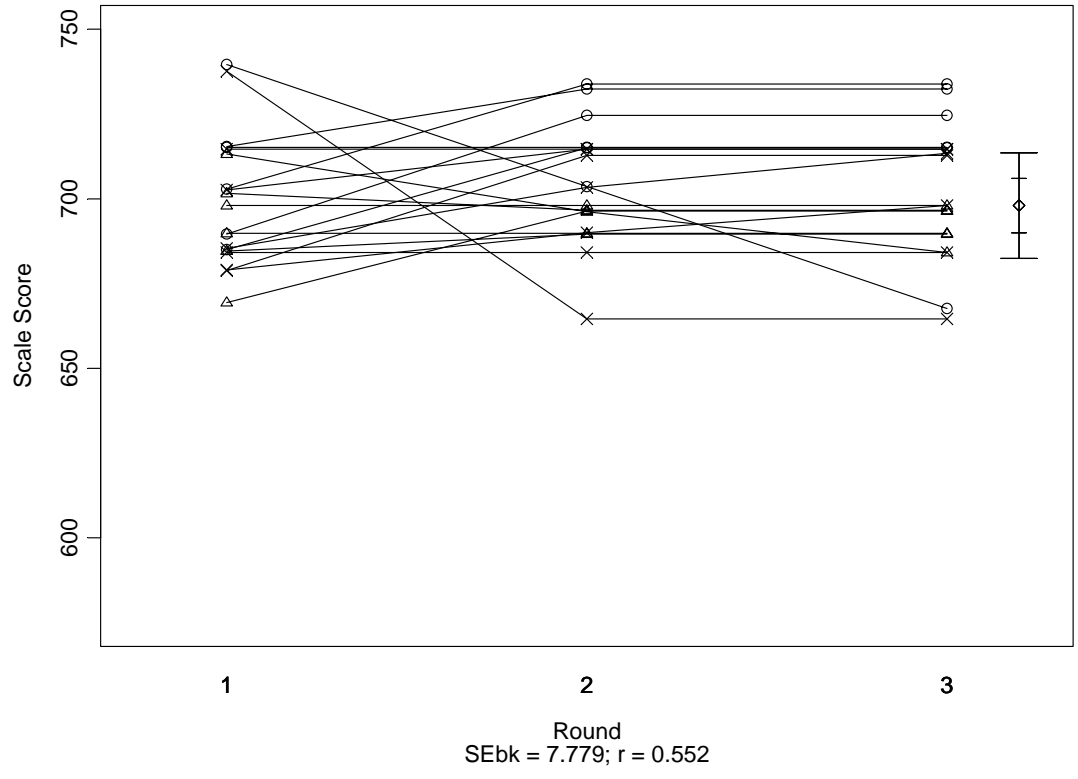
# Wisconsin Grade 8 Reading Basic Cutpoint



# Wisconsin Grade 8 Reading Proficient Cutpoint



# Wisconsin Grade 8 Reading Advanced Cutpoint



## **Section J**

1. Grade 10 Reading Detailed Results
2. Grade 10 Reading Impact, Rounds 1, 2, and 3
3. Grade 10 Reading Graphical Representations of Participants' Judgments and Standard Errors

## Grade 10 Reading Detailed Results



**Wisconsin WKCE Grade 10 Reading  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	21	42
2	8	24	51
3	11	33	52
4	12	27	41
5	2	9	60
6	12	24	43
Median	11	24	47
Minimum	2	9	41
Maximum	12	33	60

**Wisconsin WKCE Grade 10 Reading  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	22	46
2	13	26	40
3	12	26	43
4	11	22	52
5	7	13	42
6	14	22	46
7	11	25	41
8	8	21	34
Median	11	22	42.5
Minimum	7	13	34
Maximum	14	26	52

**Wisconsin WKCE Grade 10 Reading  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	9	15	35
2	7	14	25
3	11	18	31
4	7	16	24
5	11	29	43
6	9	35	45
Median	9	17	33
Minimum	7	14	24
Maximum	11	35	45

**Wisconsin WKCE Grade 10 Reading Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	11	22	42.5
Minimum	2	9	24
Maximum	14	35	60
SD	2.76	6.61	8.89

**Wisconsin WKCE Grade 10 Reading  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	676	686	711
2	674	694	729
3	676	703	731
4	677	697	710
5	650	674	765
6	677	694	711
Median	676	694	716
Minimum	650	674	710
Maximum	677	703	765

**Wisconsin WKCE Grade 10 Reading  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	676	687	714
2	679	695	707
3	677	695	711
4	676	687	731
5	673	679	711
6	680	687	714
7	676	694	710
8	674	686	703
Median	676	687	711
Minimum	673	679	703
Maximum	680	695	731

**Wisconsin WKCE Grade 10 Reading  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	674	680	703
2	673	680	694
3	676	683	702
4	673	681	694
5	676	697	711
6	674	703	713
Median	674	683	703
Minimum	673	680	694
Maximum	676	703	713

**Wisconsin WKCE Grade 10 Reading Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	676	687	711
Minimum	650	674	694
Maximum	680	703	765
SD	6.07	8.22	15.64



## Wisconsin WKCE Grade 10 Reading Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	11	24	47
Group 2 Median	11	22	42.5
Group 3 Median	9	17	33
Large Group	11	22	42.5

**Wisconsin WKCE Grade 10 Reading  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	24	46
2	11	24	54
3	11	32	50
4	12	27	48
5	14	20	45
6	8	24	51
Median	11	24	49
Minimum	8	20	45
Maximum	14	32	54

**Wisconsin WKCE Grade 10 Reading  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	9	22	46
2	10	25	40
3	10	26	40
4	11	22	40
5	10	20	41
6	14	22	43
7	11	25	43
8	11	21	40
Median	10.5	22	40.5
Minimum	9	20	40
Maximum	14	26	46

**Wisconsin WKCE Grade 10 Reading  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	19	37
2	7	20	45
3	11	24	36
4	7	14	22
5	11	27	43
6	11	15	26
Median	11	19.5	36.5
Minimum	7	14	22
Maximum	11	27	45

**Wisconsin WKCE Grade 10 Reading Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	11	23	43
Minimum	7	14	22
Maximum	14	32	54
SD	1.82	4.15	7.65

**Wisconsin WKCE Grade 10 Reading  
Group 1 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	676	694	714
2	676	694	733
3	676	702	726
4	677	697	724
5	680	685	713
6	674	694	729
Median	676	694	725
Minimum	674	685	713
Maximum	680	702	733

**Wisconsin WKCE Grade 10 Reading  
Group 2 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	674	687	714
2	674	694	707
3	674	695	707
4	676	687	707
5	674	685	710
6	680	687	711
7	676	694	711
8	676	686	707
Median	674	687	707
Minimum	674	685	707
Maximum	680	695	714

**Wisconsin WKCE Grade 10 Reading  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	676	684	704
2	673	685	713
3	676	694	704
4	673	680	687
5	676	697	711
6	676	680	695
Median	676	684	704
Minimum	673	680	687
Maximum	676	697	713



**Wisconsin WKCE Grade 10 Reading Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	676	690	711
Minimum	673	680	687
Maximum	680	702	733
SD	1.88	6.15	10.77

## Wisconsin WKCE Grade 10 Reading Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	11	24	49
Group 2 Median	10.5	22	40.5
Group 3 Median	11	19.5	36.5
Large Group	11	23	43

**Wisconsin WKCE Grade 10 Reading  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	24	47
2	11	24	54
3	11	32	53
4	12	27	48
5	13	20	42
6	8	24	54
Median	11	24	50.5
Minimum	8	20	42
Maximum	13	32	54

**Wisconsin WKCE Grade 10 Reading  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	9	22	45
2	10	25	40
3	10	26	40
4	11	24	40
5	10	20	41
6	14	22	43
7			
8	11	21	40
Median	10	22	40
Minimum	9	20	40
Maximum	14	26	45

**Wisconsin WKCE Grade 10 Reading  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	21	40
2	7	20	45
3	11	24	41
4	7	15	23
5	11	27	43
6	11	15	35
Median	11	20.5	40.5
Minimum	7	15	23
Maximum	11	27	45

**Wisconsin WKCE Grade 10 Reading Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	11	24	42
Minimum	7	15	23
Maximum	14	32	54
SD	1.78	4.05	7.10

**Wisconsin WKCE Grade 10 Reading  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	676	694	716
2	676	694	733
3	676	702	732
4	677	697	724
5	679	685	711
6	674	694	733
Median	676	694	726
Minimum	674	685	711
Maximum	679	702	733

**Wisconsin WKCE Grade 10 Reading  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	674	687	713
2	674	694	707
3	674	695	707
4	676	694	707
5	674	685	710
6	680	687	711
7			
8	676	686	707
Median	674	687	707
Minimum	674	685	707
Maximum	680	695	713



**Wisconsin WKCE Grade 10 Reading  
Group 3 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	676	686	707
2	673	685	713
3	676	694	710
4	673	680	690
5	676	697	711
6	676	680	703
Median	676	685	707
Minimum	673	680	690
Maximum	676	697	713

**Wisconsin WKCE Grade 10 Reading Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	676	694	711
Minimum	673	680	690
Maximum	680	702	733
SD	1.83	6.10	10.85

## Wisconsin WKCE Grade 10 Reading Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	11	24	50.5
Group 2 Median	10	22	40
Group 3 Median	11	20.5	40.5
Large Group	11	24	42

## Grade 10 Reading Impact, Rounds 1, 2, and 3

Wisconsin Grade 10 Reading

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	11.48	6.61	23.93	57.98
Free & Reduced Lunch	23.91	11.01	27.83	37.25
Students of Color	26.79	11.50	28.21	33.50
Majority	8.71	5.73	23.16	62.41

Wisconsin Grade 10 Reading

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	11.48	11.22	19.33	57.98
Free & Reduced Lunch	23.91	17.28	21.56	37.25
Students of Color	26.79	18.08	21.63	33.50
Majority	8.71	9.98	18.91	62.41

Wisconsin Grade 10 Reading

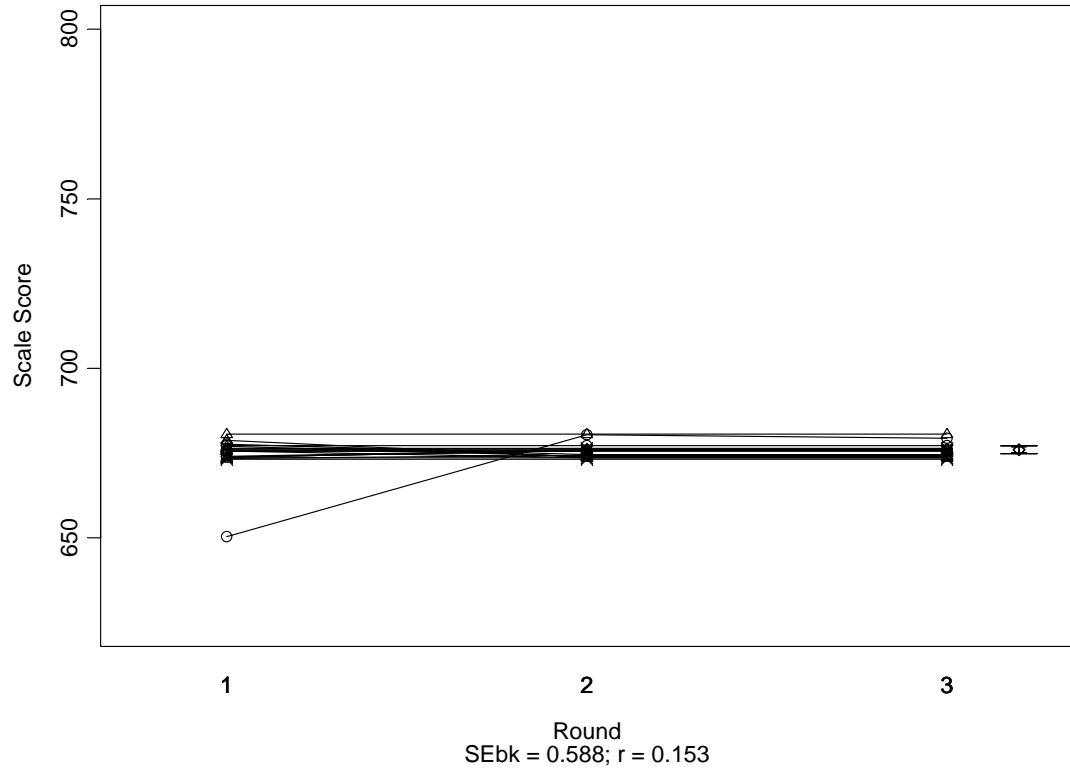
Large Group Round 3 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	11.48	11.22	19.33	57.98
Free & Reduced Lunch	23.91	17.28	21.56	37.25
Students of Color	26.79	18.08	21.63	33.50
Majority	8.71	9.98	18.91	62.41

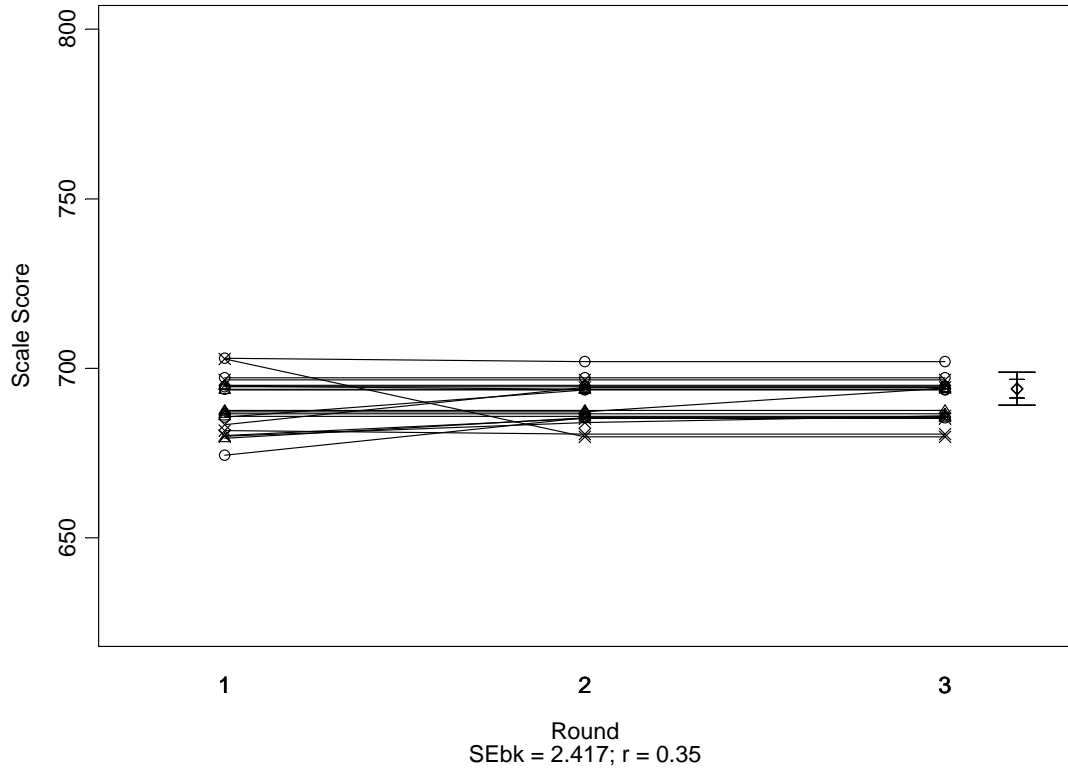
## Grade 10 Reading Graphical Representations of Participants' Judgments and Standard Errors



# Wisconsin Grade 10 Reading Basic Cutpoint



# Wisconsin Grade 10 Reading Proficient Cutpoint





## **Section K**

1. Grade 4 Language Arts Detailed Results
2. Grade 4 Language Arts Impact, Rounds 1, 2, and 3
3. Grade 4 Language Arts Graphical Representations of Participants' Judgments and Standard Errors

## Grade 4 Language Arts Detailed Results

**Wisconsin WKCE Grade 4 Language  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	15	30
2	5	18	54
3	5	15	56
4	1	15	37
5	2	6	51
6	4	20	36
7	4	20	46
Median	4	15	46
Minimum	1	6	30
Maximum	8	20	56

**Wisconsin WKCE Grade 4 Language  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	11	31
2	7	12	22
3	7	20	42
4	3	8	20
5	5	16	35
6	5	10	15
7	7	11	35
Median	6	11	31
Minimum	3	8	15
Maximum	7	20	42

**Wisconsin WKCE Grade 4 Language  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	15	45
2	5	18	45
3	6	23	45
4	8	18	46
5	7	19	35
6	8	24	42
7	2	15	31
Median	7	18	45
Minimum	2	15	31
Maximum	8	24	46



**Wisconsin WKCE Grade 4 Language Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	5	15	37
Minimum	1	6	15
Maximum	8	24	56
SD	2.08	4.75	10.86

**Wisconsin WKCE Grade 4 Language  
Group 1 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	603	621	648
2	592	627	684
3	592	621	690
4	575	621	658
5	575	597	674
6	589	629	657
7	589	629	667
Median	589	621	667
Minimum	575	597	648
Maximum	603	629	690

**Wisconsin WKCE Grade 4 Language  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	597	608	650
2	598	610	634
3	598	629	662
4	587	603	629
5	592	623	656
6	592	607	621
7	598	608	656
Median	597	608	650
Minimum	587	603	621
Maximum	598	629	662

**Wisconsin WKCE Grade 4 Language  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	598	621	665
2	592	627	665
3	597	635	665
4	603	627	667
5	598	628	656
6	603	636	662
7	575	621	650
Median	598	627	665
Minimum	575	621	650
Maximum	603	636	667

**Wisconsin WKCE Grade 4 Language Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	592	621	658
Minimum	575	597	621
Maximum	603	636	690
SD	8.74	10.77	16.33

## Wisconsin WKCE Grade 4 Language Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	4	15	46
Group 2 Median	6	11	31
Group 3 Median	7	18	45
Large Group	5	15	37

**Wisconsin WKCE Grade 4 Language  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	5	15	35
2	5	18	54
3	5	15	49
4	4	15	37
5	2	6	46
6	4	15	37
7	4	20	37
Median	4	15	37
Minimum	2	6	35
Maximum	5	20	54

**Wisconsin WKCE Grade 4 Language  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	5	11	33
2	8	11	35
3	6	15	38
4	7	11	35
5	5	10	35
6	4	9	14
7	3	7	20
Median	5	11	35
Minimum	3	7	14
Maximum	8	15	38



**Wisconsin WKCE Grade 4 Language  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	15	46
2	5	18	46
3	6	15	45
4	7	17	45
5	7	16	46
6	7	16	42
7	5	15	42
Median	7	16	45
Minimum	5	15	42
Maximum	7	18	46

**Wisconsin WKCE Grade 4 Language Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	5	15	38
Minimum	2	6	14
Maximum	8	20	54
SD	1.52	3.70	9.25

**Wisconsin WKCE Grade 4 Language  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	592	621	656
2	592	627	684
3	592	621	669
4	589	621	658
5	575	597	667
6	589	621	658
7	589	629	658
Median	589	621	658
Minimum	575	597	656
Maximum	592	629	684

**Wisconsin WKCE Grade 4 Language  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	592	608	652
2	603	608	656
3	597	621	658
4	598	608	656
5	592	607	656
6	589	607	616
7	587	598	629
Median	592	608	656
Minimum	587	598	616
Maximum	603	621	658

**Wisconsin WKCE Grade 4 Language  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	598	621	667
2	592	627	667
3	597	621	665
4	598	626	665
5	598	623	667
6	598	623	662
7	592	621	662
Median	598	623	665
Minimum	592	621	662
Maximum	598	627	667

**Wisconsin WKCE Grade 4 Language Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	592	621	658
Minimum	575	597	616
Maximum	603	629	684
SD	5.98	9.56	14.02

## Wisconsin WKCE Grade 4 Language Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	4	15	37
Group 2 Median	5	11	35
Group 3 Median	7	16	45
Large Group	5	15	38

**Wisconsin WKCE Grade 4 Language  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	5	15	35
2	5	18	54
3	5	15	44
4	4	15	38
5	2	6	46
6	4	15	38
7	4	16	36
Median	4	15	38
Minimum	2	6	35
Maximum	5	18	54



**Wisconsin WKCE Grade 4 Language  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	5	12	35
2	8	13	38
3	5	15	38
4	7	15	37
5	5	10	38
6	3	8	13
7	3	5	30
Median	5	12	37
Minimum	3	5	13
Maximum	8	15	38

**Wisconsin WKCE Grade 4 Language  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	15	47
2	5	18	46
3	6	15	42
4	8	16	45
5	6	15	46
6	7	16	42
7	5	15	40
Median	6	15	45
Minimum	5	15	40
Maximum	8	18	47

**Wisconsin WKCE Grade 4 Language Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	5	15	38
Minimum	2	5	13
Maximum	8	18	54
SD	1.60	3.57	8.12

**Wisconsin WKCE Grade 4 Language  
Group 1 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	592	621	656
2	592	627	684
3	592	621	663
4	589	621	658
5	575	597	667
6	589	621	658
7	589	623	657
Median	589	621	658
Minimum	575	597	656
Maximum	592	627	684

**Wisconsin WKCE Grade 4 Language  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	592	610	656
2	603	612	658
3	592	621	658
4	598	621	658
5	592	607	658
6	587	603	612
7	587	592	648
Median	592	610	658
Minimum	587	592	612
Maximum	603	621	658

**Wisconsin WKCE Grade 4 Language  
Group 3 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	598	621	668
2	592	627	667
3	597	621	662
4	603	623	665
5	597	621	667
6	598	623	662
7	592	621	660
Median	597	621	665
Minimum	592	621	660
Maximum	603	627	668

**Wisconsin WKCE Grade 4 Language Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	592	621	658
Minimum	575	592	612
Maximum	603	627	684
SD	6.23	9.72	12.96

## Wisconsin WKCE Grade 4 Language Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	4	15	38
Group 2 Median	5	12	37
Group 3 Median	6	15	45
Large Group	5	15	38



Grade 4 Language Arts Impact, Rounds 1, 2, and 3

Wisconsin Grade 4 Language

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	5.41	14.72	46.32	33.55
Free & Reduced Lunch	10.54	23.76	47.92	17.78
Students of Color	12.18	25.60	45.86	16.36
Majority	3.51	11.67	46.45	38.37

Wisconsin Grade 4 Language

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	5.41	14.72	46.32	33.55
Free & Reduced Lunch	10.54	23.76	47.92	17.78
Students of Color	12.18	25.60	45.86	16.36
Majority	3.51	11.67	46.45	38.37

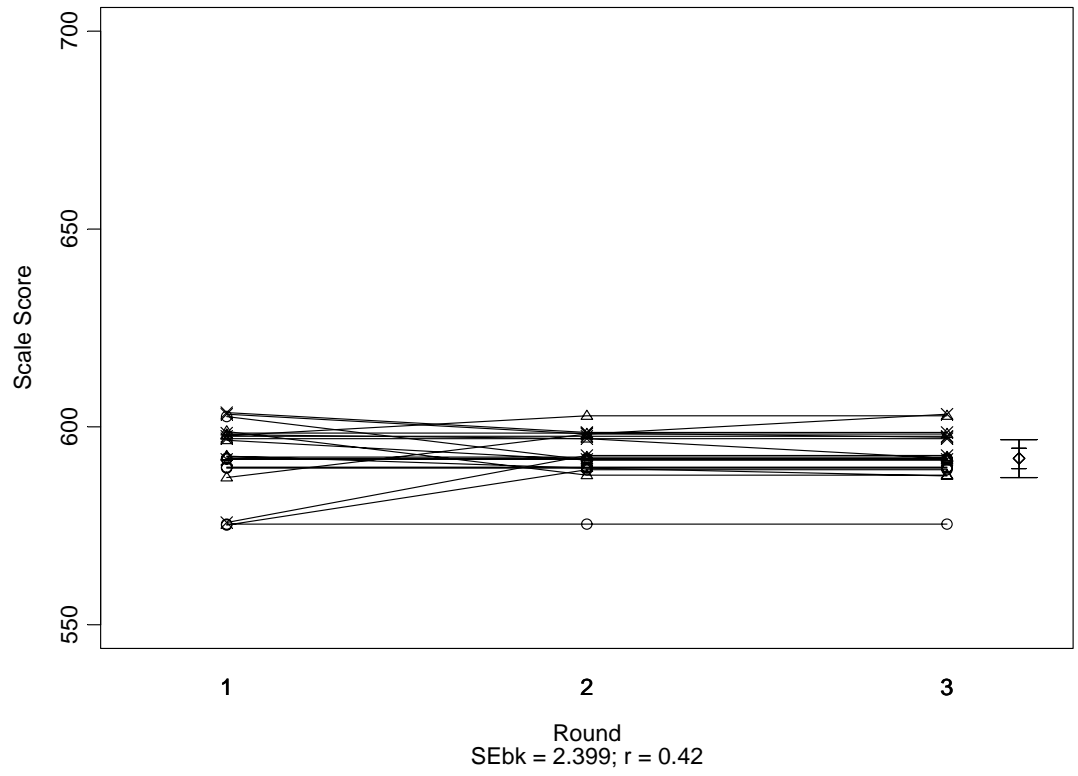
Wisconsin Grade 4 Language

Large Group Round 3 Impact Data

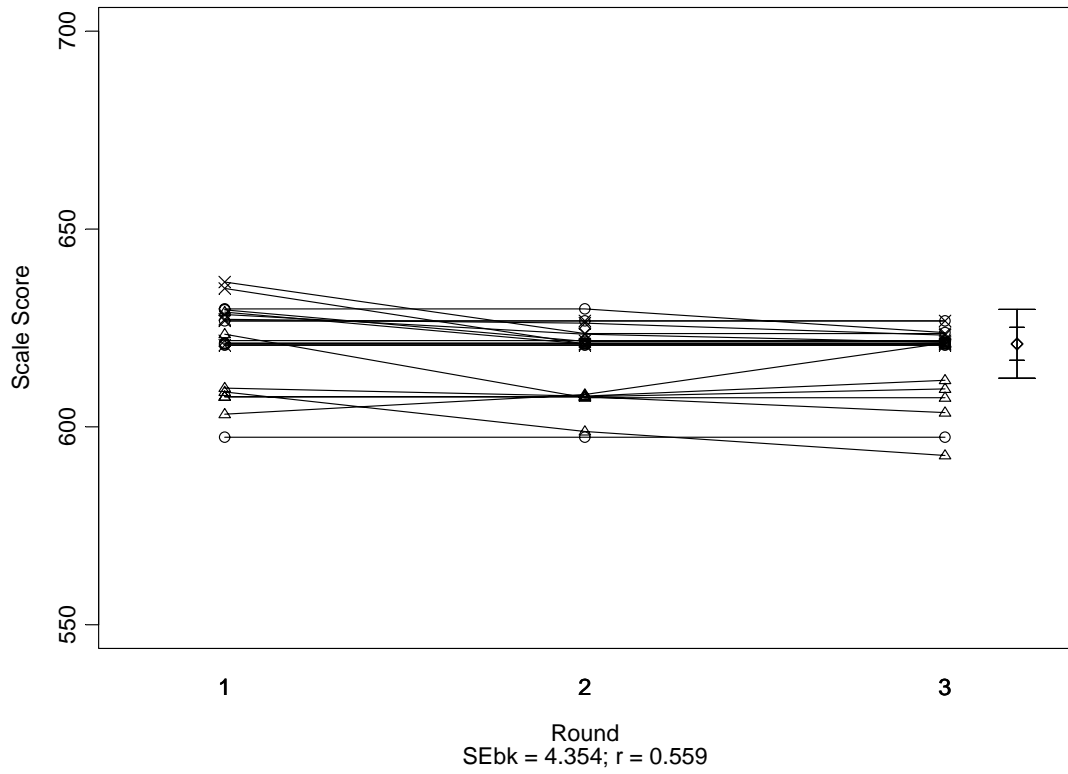
	Minimal Performance	Basic	Proficient	Advanced
All Students	5.41	14.72	46.32	33.55
Free & Reduced Lunch	10.54	23.76	47.92	17.78
Students of Color	12.18	25.60	45.86	16.36
Majority	3.51	11.67	46.45	38.37

# Grade 4 Language Arts Graphical Representations of Participants' Judgments and Standard Errors

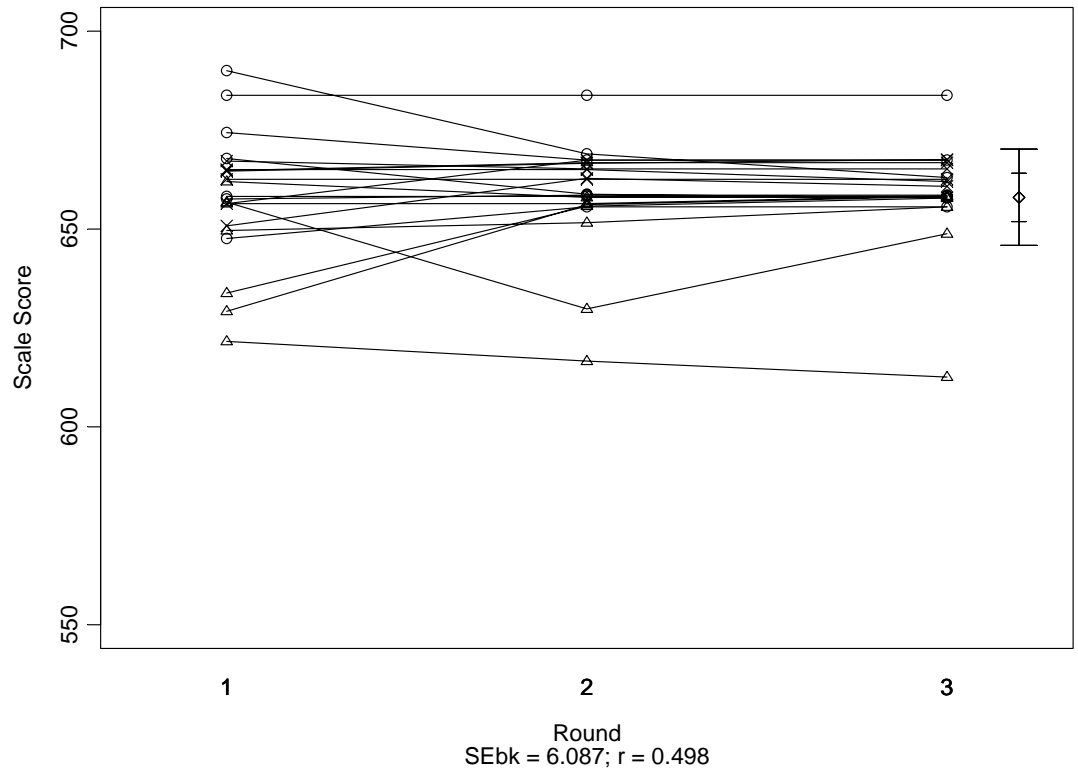
# Wisconsin Grade 4 Language Arts Basic Cutpoint



# Wisconsin Grade 4 Language Arts Proficient Cutpoint



# Wisconsin Grade 4 Language Arts Advanced Cutpoint





## **Section L**

1. Grade 8 Language Arts Detailed Results
2. Grade 8 Language Arts Impact, Rounds 1, 2, and 3
3. Grade 8 Language Arts Graphical Representations of Participants' Judgments and Standard Errors

## Grade 8 Language Arts Detailed Results

**Wisconsin WKCE Grade 8 Language  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	21	50
2	12	26	42
3	12	28	45
4	15	35	50
5	12	31	50
6	8	18	25
Median	12	27	47.5
Minimum	8	18	25
Maximum	15	35	50

**Wisconsin WKCE Grade 8 Language  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	12	39
2	10	19	37
3	10	24	46
4	8	19	50
5	11	29	46
6	16	30	49
Median	10	21.5	46
Minimum	6	12	37
Maximum	16	30	50

**Wisconsin WKCE Grade 8 Language  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	34	48
2	7	22	36
3	15	26	43
4	15	26	39
5	9	16	42
6	9	34	52
7	13	26	43
Median	12	26	43
Minimum	7	16	36
Maximum	15	34	52

**Wisconsin WKCE Grade 8 Language Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	12	26	45
Minimum	6	12	25
Maximum	16	35	52
SD	2.89	6.45	6.63

**Wisconsin WKCE Grade 8 Language  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	646	664	717
2	646	669	697
3	646	672	709
4	656	682	717
5	646	675	717
6	642	656	669
Median	646	672	712
Minimum	642	656	669
Maximum	656	682	717

**Wisconsin WKCE Grade 8 Language  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	642	646	692
2	644	659	683
3	644	668	712
4	642	659	717
5	646	674	712
6	656	674	717
Median	644	664	712
Minimum	642	646	683
Maximum	656	674	717



**Wisconsin WKCE Grade 8 Language  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	646	681	714
2	642	668	683
3	656	669	702
4	656	669	692
5	643	656	697
6	643	681	719
7	652	669	702
Median	646	669	702
Minimum	642	656	683
Maximum	656	681	719

**Wisconsin WKCE Grade 8 Language Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	646	669	709
Minimum	642	646	669
Maximum	656	682	719
SD	5.09	9.44	14.65

## Wisconsin WKCE Grade 8 Language Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	12	27	47.5
Group 2 Median	10	21.5	46
Group 3 Median	12	26	43
Large Group	12	26	45

**Wisconsin WKCE Grade 8 Language  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	21	50
2	12	26	45
3	12	26	45
4	14	32	50
5	12	28	45
6	12	24	45
Median	12	26	45
Minimum	12	21	45
Maximum	14	32	50

**Wisconsin WKCE Grade 8 Language  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	9	15	39
2	10	17	37
3	10	19	40
4	8	19	39
5	8	17	39
6	14	28	49
Median	9.5	18	39
Minimum	8	15	37
Maximum	14	28	49

**Wisconsin WKCE Grade 8 Language  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	9	20	43
2	9	23	42
3	12	26	43
4	12	26	43
5	9	23	43
6	9	22	50
7	9	22	43
Median	9	23	43
Minimum	9	20	42
Maximum	12	26	50

**Wisconsin WKCE Grade 8 Language Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	10	23	43
Minimum	8	15	37
Maximum	14	32	50
SD	1.92	4.41	3.97

**Wisconsin WKCE Grade 8 Language  
Group 1 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	646	664	717
2	646	669	709
3	646	669	709
4	653	676	717
5	646	672	709
6	646	668	709
Median	646	669	709
Minimum	646	664	709
Maximum	653	676	717



**Wisconsin WKCE Grade 8 Language  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	643	656	692
2	644	656	683
3	644	659	693
4	642	659	692
5	642	656	692
6	653	672	717
Median	643	656	692
Minimum	642	656	683
Maximum	653	672	717

**Wisconsin WKCE Grade 8 Language  
Group 3 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	643	664	702
2	643	668	697
3	646	669	702
4	646	669	702
5	643	668	702
6	643	668	717
7	643	668	702
Median	643	668	702
Minimum	643	664	697
Maximum	646	669	717

**Wisconsin WKCE Grade 8 Language Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	644	668	702
Minimum	642	656	683
Maximum	653	676	717
SD	3.16	5.98	10.11

## Wisconsin WKCE Grade 8 Language Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	12	26	45
Group 2 Median	9.5	18	39
Group 3 Median	9	23	43
Large Group	10	23	43

**Wisconsin WKCE Grade 8 Language  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	24	50
2	12	26	45
3	12	26	45
4	14	31	50
5	12	28	45
6	12	24	45
Median	12	26	45
Minimum	12	24	45
Maximum	14	31	50

**Wisconsin WKCE Grade 8 Language  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	13	37
2	10	17	37
3	10	19	40
4	8	19	39
5	8	13	30
6	16	30	49
Median	9	18	38
Minimum	7	13	30
Maximum	16	30	49

**Wisconsin WKCE Grade 8 Language  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	16	43
2	9	23	47
3	12	26	43
4	12	26	43
5	9	23	43
6	10	26	49
7	9	22	43
Median	9	23	43
Minimum	8	16	43
Maximum	12	26	49

**Wisconsin WKCE Grade 8 Language Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	10	24	43
Minimum	7	13	30
Maximum	16	31	50
SD	2.31	5.28	5.09



**Wisconsin WKCE Grade 8 Language  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	646	668	717
2	646	669	709
3	646	669	709
4	653	675	717
5	646	672	709
6	646	668	709
Median	646	669	709
Minimum	646	668	709
Maximum	653	675	717

**Wisconsin WKCE Grade 8 Language  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	642	652	683
2	644	656	683
3	644	659	693
4	642	659	692
5	642	652	674
6	656	674	717
Median	643	656	683
Minimum	642	652	674
Maximum	656	674	717

**Wisconsin WKCE Grade 8 Language  
Group 3 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	642	656	702
2	643	668	712
3	646	669	702
4	646	669	702
5	643	668	702
6	644	669	717
7	643	668	702
Median	643	668	702
Minimum	642	656	702
Maximum	646	669	717

**Wisconsin WKCE Grade 8 Language Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	644	668	702
Minimum	642	652	674
Maximum	656	675	717
SD	3.58	7.30	12.65

## Wisconsin WKCE Grade 8 Language Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	12	26	45
Group 2 Median	9	18	38
Group 3 Median	9	23	43
Large Group	10	24	43

# Grade 8 Language Arts Impact, Rounds 1, 2, and 3

Wisconsin Grade 8 Language

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	16.17	24.14	43.61	16.08
Free & Reduced Lunch	32.25	31.58	30.89	5.28
Students of Color	34.85	32.18	27.87	5.10
Majority	11.80	22.25	47.30	18.65

Wisconsin Grade 8 Language

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	13.57	22.59	44.05	19.79
Free & Reduced Lunch	27.98	31.45	33.59	6.99
Students of Color	30.29	32.40	30.75	6.56
Majority	9.66	20.29	47.16	22.89



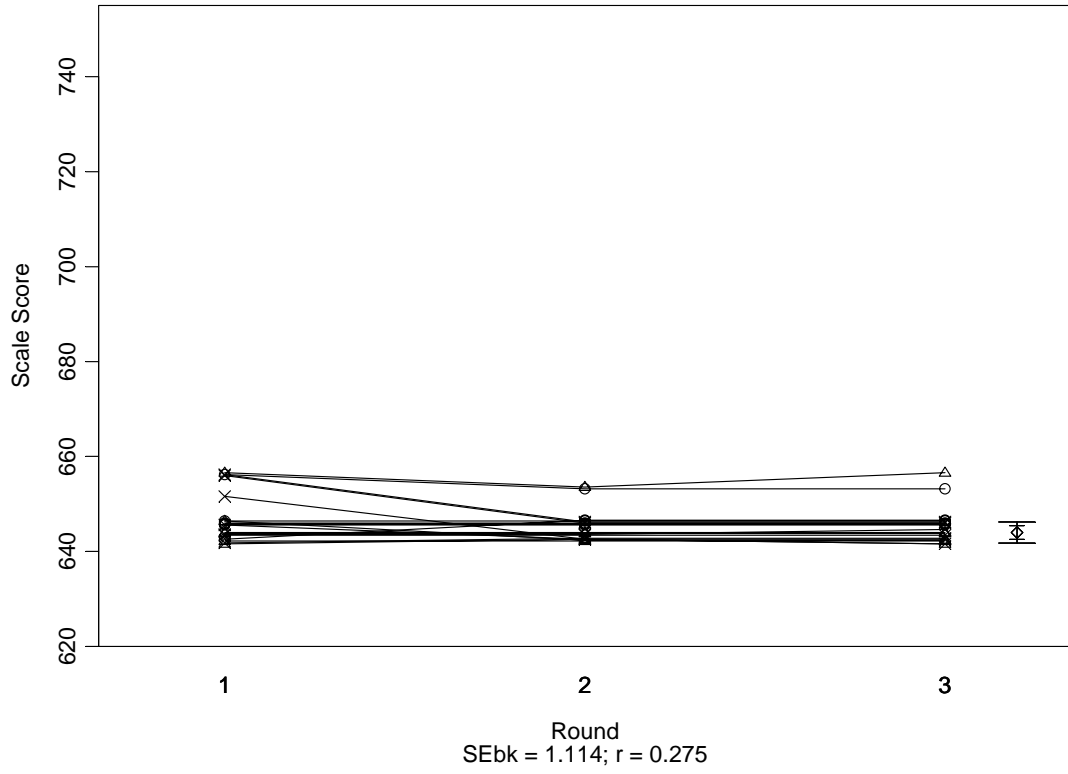
Wisconsin Grade 8 Language

Large Group Round 3 Impact Data

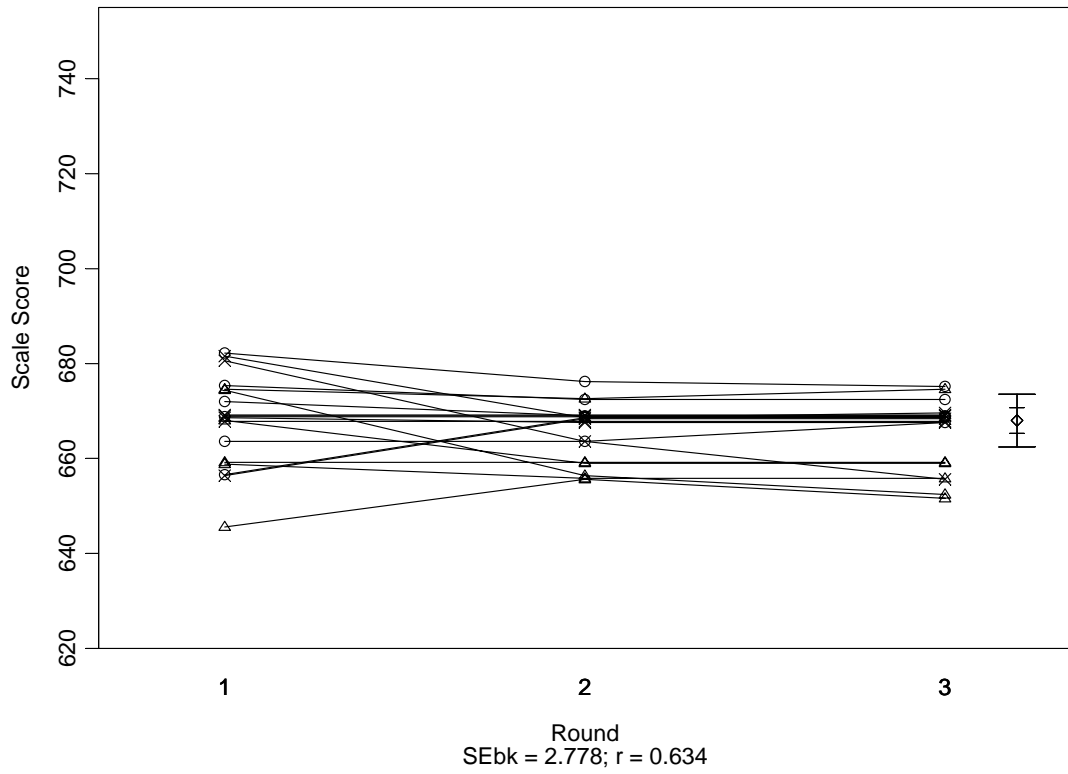
	Minimal Performance	Basic	Proficient	Advanced
All Students	13.57	22.59	44.05	19.79
Free & Reduced Lunch	27.98	31.45	33.59	6.99
Students of Color	30.29	32.40	30.75	6.56
Majority	9.66	20.29	47.16	22.89

Grade 8 Language Arts Graphical Representations of  
Participants' Judgments and Standard Errors

# Wisconsin Grade 8 Language Arts Basic Cutpoint



# Wisconsin Grade 8 Language Arts Proficient Cutpoint





## **Section M**

1. Grade 10 Language Arts Detailed Results
2. Grade 10 Language Arts Impact, Rounds 1, 2, and 3
3. Grade 10 Language Arts Graphical Representations of Participants' Judgments and Standard Errors

## Grade 10 Language Arts Detailed Results

**Wisconsin WKCE Grade 10 Language  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	32	51
2	12	27	56
3	11	27	47
4	18	37	47
5	13	31	53
6	10	25	38
Median	12	29	49
Minimum	10	25	38
Maximum	18	37	56



**Wisconsin WKCE Grade 10 Language  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	9	17	35
2	22	35	43
3	20	44	58
4	12	25	42
5	17	38	55
6	9	21	50
7	14	22	41
8	12	21	42
Median	13	23.5	42.5
Minimum	9	17	35
Maximum	22	44	58

**Wisconsin WKCE Grade 10 Language  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	23	42
2	9	15	21
3	9	22	49
4	10	21	50
5	10	21	50
6	18	41	53
Median	10	21.5	49.5
Minimum	9	15	21
Maximum	18	41	53

**Wisconsin WKCE Grade 10 Language Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	12	25	48
Minimum	9	15	21
Maximum	22	44	58
SD	3.97	8.18	8.58

**Wisconsin WKCE Grade 10 Language  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	674	705	753
2	674	697	770
3	672	697	739
4	684	718	739
5	674	702	757
6	672	696	719
Median	674	699	741
Minimum	672	696	719
Maximum	684	718	770

**Wisconsin WKCE Grade 10 Language  
Group 2 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	671	683	711
2	693	711	728
3	689	731	781
4	674	696	726
5	683	719	768
6	671	690	745
7	678	693	725
8	674	690	726
Median	674	694	726
Minimum	671	683	711
Maximum	693	731	781

**Wisconsin WKCE Grade 10 Language  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	672	694	726
2	671	678	690
3	671	693	741
4	672	690	745
5	672	690	745
6	684	725	757
Median	672	690	741
Minimum	671	678	690
Maximum	684	725	757

**Wisconsin WKCE Grade 10 Language Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	674	696	740
Minimum	671	678	690
Maximum	693	731	781
SD	6.71	14.02	21.70

## Wisconsin WKCE Grade 10 Language Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	12	29	49
Group 2 Median	13	23.5	42.5
Group 3 Median	10	21.5	49.5
Large Group	12	25	48



**Wisconsin WKCE Grade 10 Language  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	29	51
2	12	27	48
3	11	27	47
4	12	37	47
5	11	27	47
6	10	25	47
Median	11.5	27	47
Minimum	10	25	47
Maximum	12	37	51

**Wisconsin WKCE Grade 10 Language  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	21	40
2	12	21	43
3	13	25	52
4	11	25	47
5	13	32	55
6	10	21	50
7	14	22	43
8	12	25	48
Median	12	23.5	47.5
Minimum	10	21	40
Maximum	14	32	55

**Wisconsin WKCE Grade 10 Language  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	25	45
2	9	16	22
3	11	24	49
4	10	24	50
5	11	24	50
6	10	22	53
Median	10.5	24	49.5
Minimum	9	16	22
Maximum	11	25	53

**Wisconsin WKCE Grade 10 Language Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	11	25	47.5
Minimum	9	16	22
Maximum	14	37	55
SD	1.23	4.42	6.81

**Wisconsin WKCE Grade 10 Language  
Group 1 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	674	699	753
2	674	697	740
3	672	697	739
4	674	718	739
5	672	697	739
6	672	696	739
Median	672	697	739
Minimum	672	696	739
Maximum	674	718	753

**Wisconsin WKCE Grade 10 Language  
Group 2 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	674	690	720
2	674	690	728
3	674	696	757
4	672	696	739
5	674	705	768
6	672	690	745
7	678	693	728
8	674	696	740
Median	674	694	739
Minimum	672	690	720
Maximum	678	705	768

**Wisconsin WKCE Grade 10 Language  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	672	696	733
2	671	681	693
3	672	696	741
4	672	696	745
5	672	696	745
6	672	693	757
Median	672	696	741
Minimum	671	681	693
Maximum	672	696	757

**Wisconsin WKCE Grade 10 Language Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	672	696	739
Minimum	671	681	693
Maximum	678	718	768
SD	1.34	6.98	15.46



## Wisconsin WKCE Grade 10 Language Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	11.5	27	47
Group 2 Median	12	23.5	47.5
Group 3 Median	10.5	24	49.5
Large Group	11	25	47.5

**Wisconsin WKCE Grade 10 Language  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	28	51
2	12	27	48
3	11	27	47
4	12	35	45
5	10	27	47
6	10	25	47
Median	11.5	27	47
Minimum	10	25	45
Maximum	12	35	51

**Wisconsin WKCE Grade 10 Language  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	21	40
2	12	22	47
3	13	25	50
4	10	24	47
5	13	32	55
6	10	21	50
7	14	22	43
8	12	25	48
Median	12	23	47.5
Minimum	10	21	40
Maximum	14	32	55

**Wisconsin WKCE Grade 10 Language  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	25	49
2	9	15	21
3	11	24	49
4	10	21	50
5	11	24	50
6	11	22	53
Median	11	23	49.5
Minimum	9	15	21
Maximum	11	25	53

**Wisconsin WKCE Grade 10 Language Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	11	24.5	48
Minimum	9	15	21
Maximum	14	35	55
SD	1.26	4.26	6.91

**Wisconsin WKCE Grade 10 Language  
Group 1 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	674	698	753
2	674	697	740
3	672	697	739
4	674	711	733
5	672	697	739
6	672	696	739
<b>Median</b>	672	697	739
<b>Minimum</b>	672	696	733
<b>Maximum</b>	674	711	753

**Wisconsin WKCE Grade 10 Language  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	674	690	720
2	674	693	739
3	674	696	745
4	672	696	739
5	674	705	768
6	672	690	745
7	678	693	728
8	674	696	740
Median	674	694	739
Minimum	672	690	720
Maximum	678	705	768

**Wisconsin WKCE Grade 10 Language  
Group 3 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	672	696	741
2	671	678	690
3	672	696	741
4	672	690	745
5	672	696	745
6	672	693	757
Median	672	694	741
Minimum	671	678	690
Maximum	672	696	757



**Wisconsin WKCE Grade 10 Language Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	672	696	740
Minimum	671	678	690
Maximum	678	711	768
SD	1.34	6.31	15.27

## Wisconsin WKCE Grade 10 Language Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	11.5	27	47
Group 2 Median	12	23	47.5
Group 3 Median	11	23	49.5
Large Group	11	24.5	48

## Grade 10 Language Arts Impact, Rounds 1, 2, and 3

Wisconsin Grade 10 Language

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	8.58	20.07	51.91	19.45
Free & Reduced Lunch	19.33	31.35	42.36	6.96
Students of Color	22.11	32.70	38.76	6.43
Majority	6.13	17.78	54.29	21.80

Wisconsin Grade 10 Language

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	8.58	20.07	51.91	19.45
Free & Reduced Lunch	19.33	31.35	42.36	6.96
Students of Color	22.11	32.70	38.76	6.43
Majority	6.13	17.78	54.29	21.80

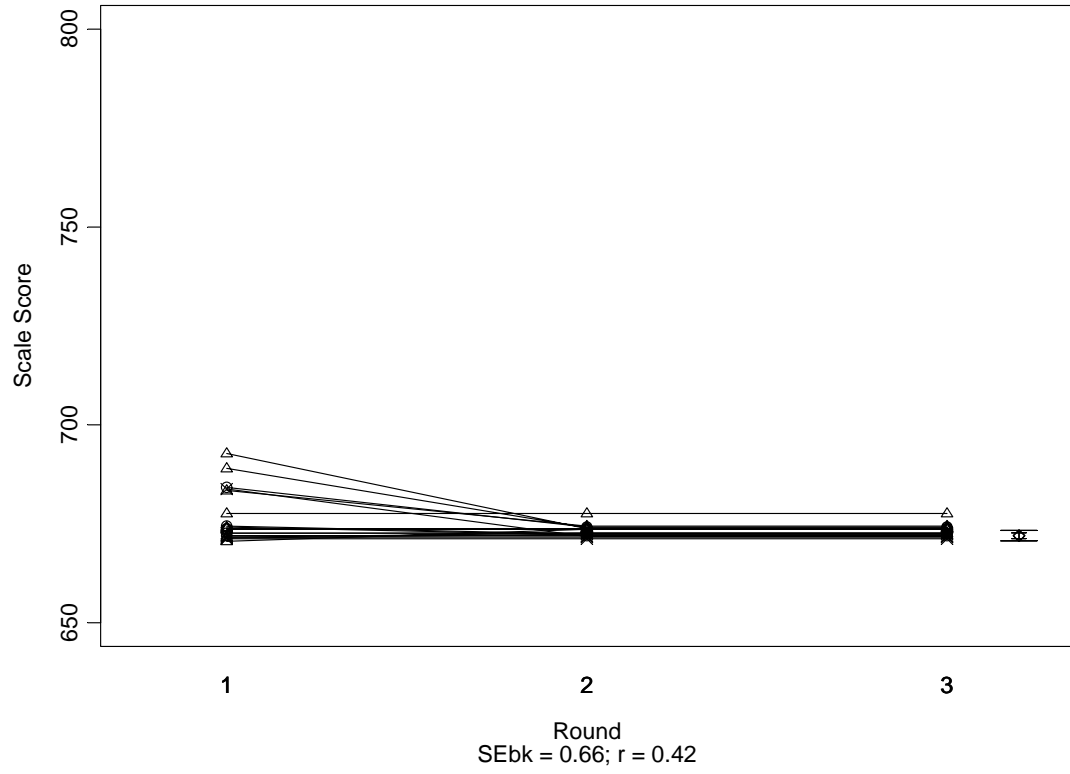
Wisconsin Grade 10 Language

Large Group Round 3 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	8.58	20.07	51.91	19.45
Free & Reduced Lunch	19.33	31.35	42.36	6.96
Students of Color	22.11	32.70	38.76	6.43
Majority	6.13	17.78	54.29	21.80

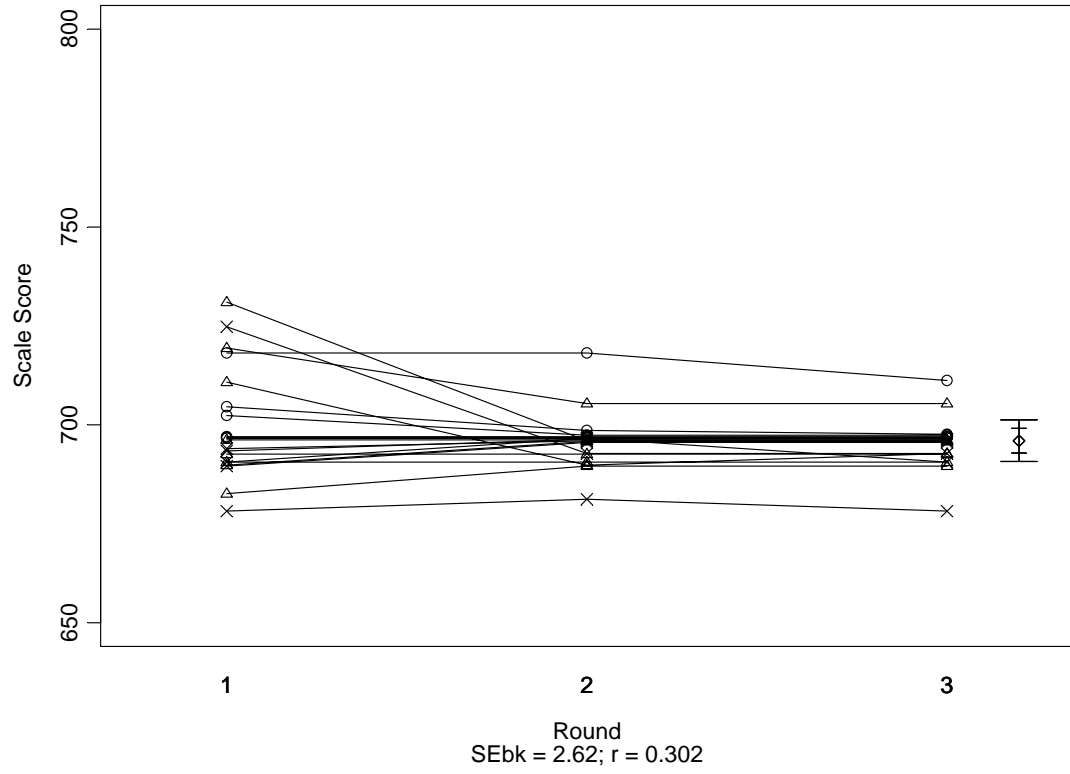
# Grade 10 Language Arts Graphical Representations of Participants' Judgments and Standard Errors

# Wisconsin Grade 10 Language Arts Basic Cutpoint

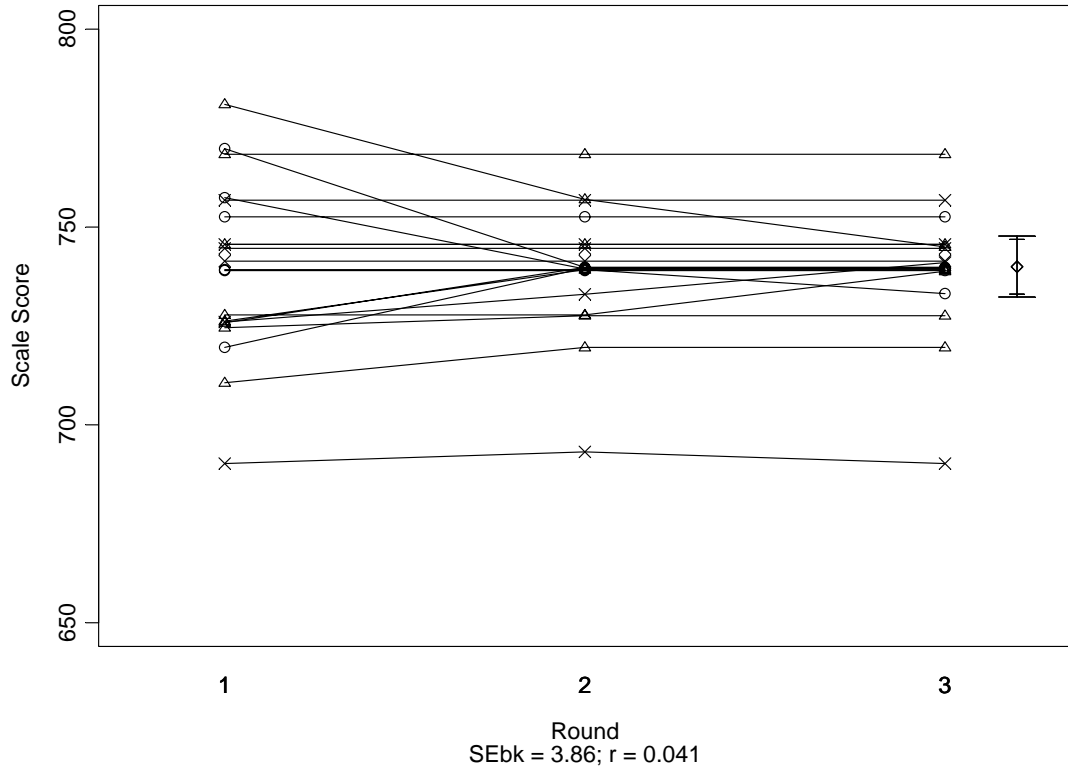




# Wisconsin Grade 10 Language Arts Proficient Cutpoint



# Wisconsin Grade 10 Language Arts Advanced Cutpoint



## **Section N**

1. Grade 4 Mathematics Detailed Results
2. Grade 4 Mathematics s Impact, Rounds 1, 2, and 3
3. Grade 4 Mathematics Graphical Representations of Participants' Judgments and Standard Errors

## Grade 4 Mathematics Detailed Results

**Wisconsin WKCE Grade 4 Mathematics  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	20	38
2	7	14	37
3	11	18	49
4	13	22	51
5	14	29	43
6	13	24	37
7	9	20	53
Median	11	20	43
Minimum	7	14	37
Maximum	14	29	53

**Wisconsin WKCE Grade 4 Mathematics  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	25	41
2	10	28	45
3	10	23	53
4	10	22	58
5	7	13	20
6	22	41	57
7	11	22	53
Median	10	23	53
Minimum	7	13	20
Maximum	22	41	58

**Wisconsin WKCE Grade 4 Mathematics  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	15	31	57
2	7	22	38
3	13	28	55
4	7	19	41
5	22	37	55
6	16	25	41
7	11	22	46
Median	13	25	46
Minimum	7	19	38
Maximum	22	37	57

**Wisconsin WKCE Grade 4 Mathematics Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	11	22	46
Minimum	7	13	20
Maximum	22	41	58
SD	4.22	6.71	9.43



**Wisconsin WKCE Grade 4 Mathematics  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	602	615	646
2	583	610	644
3	602	613	664
4	609	618	666
5	610	635	649
6	609	619	644
7	602	615	666
Median	602	615	649
Minimum	583	610	644
Maximum	610	635	666

**Wisconsin WKCE Grade 4 Mathematics  
Group 2 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	609	624	647
2	602	633	655
3	602	619	666
4	602	618	680
5	583	609	615
6	618	647	679
7	602	618	666
Median	602	619	666
Minimum	583	609	615
Maximum	618	647	680

**Wisconsin WKCE Grade 4 Mathematics  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	611	636	679
2	583	618	646
3	609	633	676
4	583	614	647
5	618	644	676
6	612	624	647
7	602	618	656
Median	609	624	656
Minimum	583	614	646
Maximum	618	644	679

**Wisconsin WKCE Grade 4 Mathematics Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	602	618	656
Minimum	583	609	615
Maximum	618	647	680
SD	10.73	11.02	16.20

## Wisconsin WKCE Grade 4 Mathematics Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	11	20	43
Group 2 Median	10	23	53
Group 3 Median	13	25	46
Large Group	11	22	46

**Wisconsin WKCE Grade 4 Mathematics  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	20	37
2	10	22	37
3	11	20	41
4	12	22	51
5	11	22	41
6	12	22	41
7	10	20	43
Median	11	22	41
Minimum	10	20	37
Maximum	12	22	51

**Wisconsin WKCE Grade 4 Mathematics  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	20	38
2	7	22	38
3	7	20	43
4	7	22	41
5	7	22	38
6	7	21	41
7	8	20	41
Median	7	21	41
Minimum	7	20	38
Maximum	8	22	43

**Wisconsin WKCE Grade 4 Mathematics  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	13	22	57
2	10	22	55
3	11	22	41
4	10	22	49
5	16	28	55
6	7	22	47
7	10	19	55
Median	10	22	55
Minimum	7	19	41
Maximum	16	28	57



**Wisconsin WKCE Grade 4 Mathematics Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	10	22	41
Minimum	7	19	37
Maximum	16	28	57
SD	2.47	1.81	6.65

**Wisconsin WKCE Grade 4 Mathematics  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	602	615	644
2	602	618	644
3	602	615	647
4	609	618	666
5	602	618	647
6	609	618	647
7	602	615	649
Median	602	618	647
Minimum	602	615	644
Maximum	609	618	666

**Wisconsin WKCE Grade 4 Mathematics  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	583	615	646
2	583	618	646
3	583	615	649
4	583	618	647
5	583	618	646
6	583	615	647
7	595	615	647
Median	583	615	647
Minimum	583	615	646
Maximum	595	618	649

**Wisconsin WKCE Grade 4 Mathematics  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	609	618	679
2	602	618	676
3	602	618	647
4	602	618	664
5	612	633	676
6	583	618	658
7	602	614	676
Median	602	618	676
Minimum	583	614	647
Maximum	612	633	679

**Wisconsin WKCE Grade 4 Mathematics Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	602	618	647
Minimum	583	614	644
Maximum	612	633	679
SD	10.50	3.86	12.39

## Wisconsin WKCE Grade 4 Mathematics Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	11	22	41
Group 2 Median	7	21	41
Group 3 Median	10	22	55
Large Group	10	22	41

**Wisconsin WKCE Grade 4 Mathematics  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	19	37
2	10	17	37
3	10	14	41
4	12	21	43
5	11	20	43
6	12	20	41
7	9	19	41
Median	11	19	41
Minimum	9	14	37
Maximum	12	21	43

**Wisconsin WKCE Grade 4 Mathematics  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	14	43
2	7	14	41
3	7	18	43
4	7	17	39
5	7	15	22
6	7	19	44
7	7	14	41
Median	7	15	41
Minimum	6	14	22
Maximum	7	19	44



**Wisconsin WKCE Grade 4 Mathematics  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	22	57
2	10	22	55
3	9	19	50
4	7	19	50
5	16	28	55
6	7	19	49
7	10	18	55
Median	10	19	55
Minimum	7	18	49
Maximum	16	28	57

**Wisconsin WKCE Grade 4 Mathematics Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	9	19	43
Minimum	6	14	22
Maximum	16	28	57
SD	2.53	3.36	8.01

**Wisconsin WKCE Grade 4 Mathematics  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	602	614	644
2	602	612	644
3	602	610	647
4	609	615	649
5	602	615	649
6	609	615	647
7	602	614	647
Median	602	614	647
Minimum	602	610	644
Maximum	609	615	649

**Wisconsin WKCE Grade 4 Mathematics  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	576	610	649
2	583	610	647
3	583	613	649
4	583	612	647
5	583	611	618
6	583	614	651
7	583	610	647
Median	583	611	647
Minimum	576	610	618
Maximum	583	614	651

**Wisconsin WKCE Grade 4 Mathematics  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	609	618	679
2	602	618	676
3	602	614	665
4	583	614	665
5	612	633	676
6	583	614	664
7	602	613	676
Median	602	614	676
Minimum	583	613	664
Maximum	612	633	679

**Wisconsin WKCE Grade 4 Mathematics Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	602	614	649
Minimum	576	610	618
Maximum	612	633	679
SD	11.64	5.00	14.77

## Wisconsin WKCE Grade 4 Mathematics Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	11	19	41
Group 2 Median	7	15	41
Group 3 Median	10	19	55
Large Group	9	19	43

## Grade 4 Mathematics Impact, Rounds 1, 2, and 3



Wisconsin Grade 4 Mathematics

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	15.45	16.35	44.90	23.29
Free & Reduced Lunch	27.74	21.95	40.15	10.16
Students of Color	31.21	21.56	36.98	10.25
Majority	11.01	14.89	47.13	26.97

Wisconsin Grade 4 Mathematics

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	15.45	16.35	33.37	34.82
Free & Reduced Lunch	27.74	21.95	32.38	17.93
Students of Color	31.21	21.56	30.03	17.20
Majority	11.01	14.89	34.31	39.79

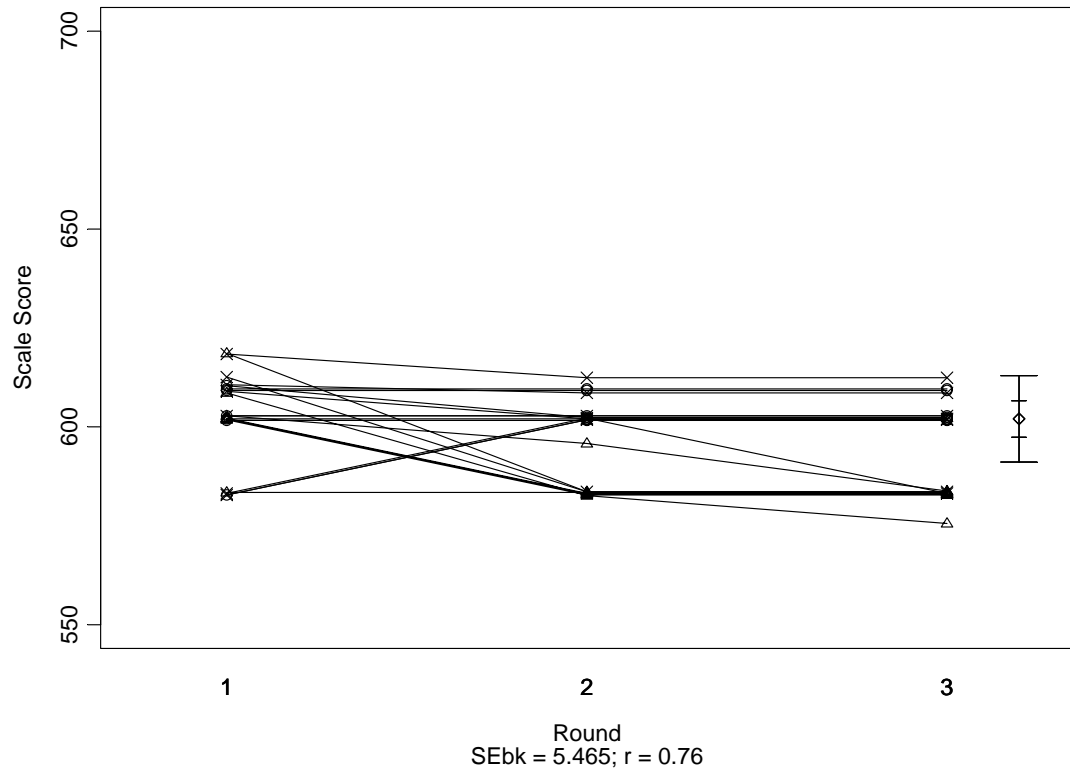
Wisconsin Grade 4 Mathematics

Large Group Round 3 Impact Data

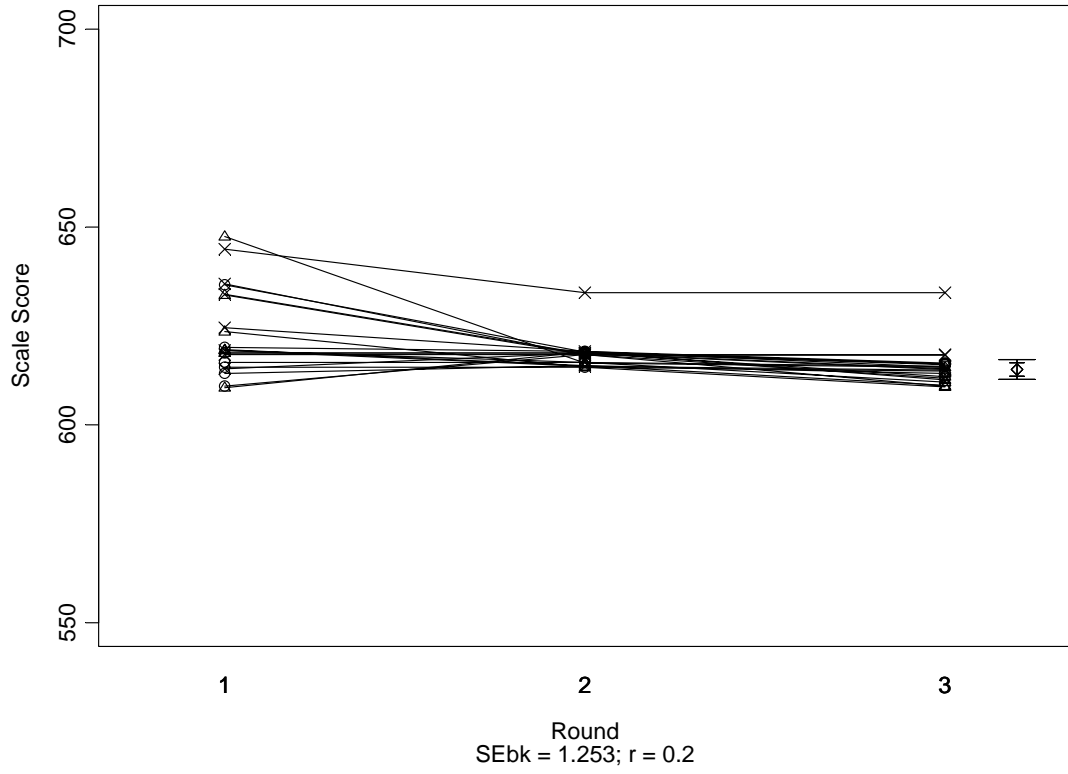
	Minimal Performance	Basic	Proficient	Advanced
All Students	15.45	11.28	41.46	31.81
Free & Reduced Lunch	27.74	15.74	40.91	15.60
Students of Color	31.21	15.71	37.76	15.31
Majority	11.01	10.03	42.50	36.45

# Grade 4 Mathematics Graphical Representations of Participants' Judgments and Standard Errors

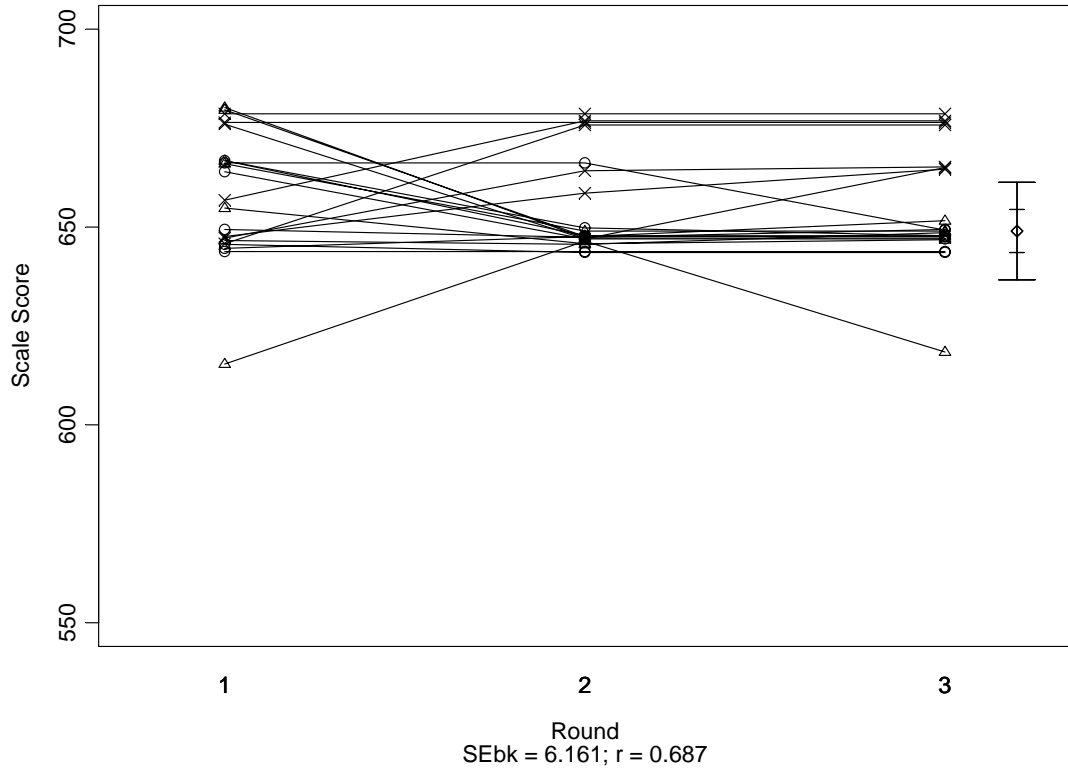
# Wisconsin Grade 4 Mathematics Basic Cutpoint



# Wisconsin Grade 4 Mathematics Proficient Cutpoint



# Wisconsin Grade 4 Mathematics Advanced Cutpoint



## **Section O**

1. Grade 8 Mathematics Detailed Results
2. Grade 8 Mathematics s Impact, Rounds 1, 2, and 3
3. Grade 8 Mathematics Graphical Representations of Participants' Judgments and Standard Errors



# Grade 8 Mathematics Detailed Results

**Wisconsin WKCE Grade 8 Mathematics  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	20	48
2	11	25	49
3	4	12	29
4	19	38	52
5	5	9	17
6	22	36	41
Median	9.5	22.5	44.5
Minimum	4	9	17
Maximum	22	38	52

**Wisconsin WKCE Grade 8 Mathematics  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	32	52
2	8	24	38
3	11	24	48
4	11	30	53
5	11	25	53
6	5	16	38
7	15	32	53
Median	11	25	52
Minimum	5	16	38
Maximum	15	32	53

**Wisconsin WKCE Grade 8 Mathematics  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	20	39
2	8	20	38
3	14	34	42
4	6	15	33
5	10	20	41
6	12	17	28
7	18	32	46
Median	10	20	39
Minimum	6	15	28
Maximum	18	34	46

**Wisconsin WKCE Grade 8 Mathematics Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	11	24	41.5
Minimum	4	9	17
Maximum	22	38	53
SD	4.83	8.26	9.81

**Wisconsin WKCE Grade 8 Mathematics  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	667	682	734
2	671	691	739
3	644	672	708
4	679	722	740
5	650	668	677
6	686	720	724
Median	668	686	730
Minimum	644	668	677
Maximum	686	722	740

**Wisconsin WKCE Grade 8 Mathematics  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	671	715	740
2	667	688	722
3	671	688	734
4	671	710	742
5	671	691	742
6	650	676	722
7	675	715	742
Median	671	691	740
Minimum	650	676	722
Maximum	675	715	742

**Wisconsin WKCE Grade 8 Mathematics  
Group 3 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	667	682	724
2	667	682	722
3	674	716	727
4	659	675	716
5	669	682	724
6	672	677	705
7	678	715	731
Median	669	682	724
Minimum	659	675	705
Maximum	678	716	731



**Wisconsin WKCE Grade 8 Mathematics Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	671	688	724
Minimum	644	668	677
Maximum	686	722	742
SD	10.22	18.27	16.02

## Wisconsin WKCE Grade 8 Mathematics Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	9.5	22.5	44.5
Group 2 Median	11	25	52
Group 3 Median	10	20	39
Large Group	11	24	41.5

**Wisconsin WKCE Grade 8 Mathematics  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	15	49
2	9	25	48
3	5	12	32
4	11	25	40
5	5	12	42
6	12	26	41
Median	8.5	20	41.5
Minimum	5	12	32
Maximum	12	26	49

**Wisconsin WKCE Grade 8 Mathematics  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	29	52
2	7	16	38
3	11	25	50
4	11	25	48
5	8	23	38
6	5	16	38
7	14	30	53
Median	11	25	48
Minimum	5	16	38
Maximum	14	30	53

**Wisconsin WKCE Grade 8 Mathematics  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	20	46
2	6	20	44
3	6	20	42
4	4	15	33
5	6	20	48
6	6	15	35
7	6	17	44
Median	6	20	44
Minimum	4	15	33
Maximum	6	20	48

**Wisconsin WKCE Grade 8 Mathematics Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	6.5	20	43
Minimum	4	12	32
Maximum	14	30	53
SD	2.87	5.47	6.19

**Wisconsin WKCE Grade 8 Mathematics  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	667	675	739
2	668	691	734
3	650	672	715
4	671	691	724
5	650	672	727
6	672	697	724
Median	667	682	724
Minimum	650	672	715
Maximum	672	697	739

**Wisconsin WKCE Grade 8 Mathematics  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	671	708	740
2	665	676	722
3	671	691	739
4	671	691	734
5	667	688	722
6	650	676	722
7	674	710	742
Median	671	691	734
Minimum	650	676	722
Maximum	674	710	742



**Wisconsin WKCE Grade 8 Mathematics  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	659	682	731
2	659	682	730
3	659	682	727
4	644	675	716
5	659	682	734
6	659	675	718
7	659	677	730
Median	659	682	730
Minimum	644	675	716
Maximum	659	682	734

**Wisconsin WKCE Grade 8 Mathematics Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	659	682	729
Minimum	644	672	715
Maximum	674	710	742
SD	8.71	11.17	8.18

## Wisconsin WKCE Grade 8 Mathematics Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	8.5	20	41.5
Group 2 Median	11	25	48
Group 3 Median	6	20	44
Large Group	6.5	20	43

**Wisconsin WKCE Grade 8 Mathematics  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	15	49
2	8	23	48
3	5	12	32
4	11	25	40
5	2	6	30
6	12	25	48
Median	7	19	44
Minimum	2	6	30
Maximum	12	25	49

**Wisconsin WKCE Grade 8 Mathematics  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	28	48
2	7	15	48
3	10	25	52
4	11	25	48
5	8	23	38
6	5	16	38
7	11	25	44
Median	10	25	48
Minimum	5	15	38
Maximum	11	28	52

**Wisconsin WKCE Grade 8 Mathematics  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	20	45
2	6	20	46
3	6	20	42
4	4	15	28
5	6	20	45
6	2	5	15
7	6	16	38
Median	6	20	42
Minimum	2	5	15
Maximum	6	20	46

**Wisconsin WKCE Grade 8 Mathematics Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	6	20	44.5
Minimum	2	5	15
Maximum	12	28	52
SD	3.01	6.39	9.10

**Wisconsin WKCE Grade 8 Mathematics  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	659	675	739
2	667	688	734
3	650	672	715
4	671	691	724
5	623	659	710
6	672	691	734
Median	665	679	730
Minimum	623	659	710
Maximum	672	691	739



**Wisconsin WKCE Grade 8 Mathematics  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	671	705	734
2	665	675	734
3	669	691	740
4	671	691	734
5	667	688	722
6	650	676	722
7	671	691	730
Median	669	691	734
Minimum	650	675	722
Maximum	671	705	740

**Wisconsin WKCE Grade 8 Mathematics  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	659	682	731
2	659	682	731
3	659	682	727
4	644	675	705
5	659	682	731
6	623	650	675
7	659	676	722
Median	659	682	727
Minimum	623	650	675
Maximum	659	682	731

**Wisconsin WKCE Grade 8 Mathematics Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	659	682	730
Minimum	623	650	675
Maximum	672	705	740
SD	14.59	12.22	14.83

## Wisconsin WKCE Grade 8 Mathematics Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	7	19	44
Group 2 Median	10	25	48
Group 3 Median	6	20	42
Large Group	6	20	44.5

## Grade 8 Mathematics Impact, Rounds 1, 2, and 3

Wisconsin Grade 8 Mathematics

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	17.44	13.77	37.10	31.69
Free & Reduced Lunch	36.69	19.77	31.48	12.06
Students of Color	42.30	19.68	27.32	10.70
Majority	11.64	12.39	39.38	36.59

Wisconsin Grade 8 Mathematics

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	12.82	12.08	48.86	26.24
Free & Reduced Lunch	28.48	19.74	42.70	9.08
Students of Color	33.28	20.83	37.71	8.18
Majority	8.04	10.04	51.46	30.45

Wisconsin Grade 8 Mathematics

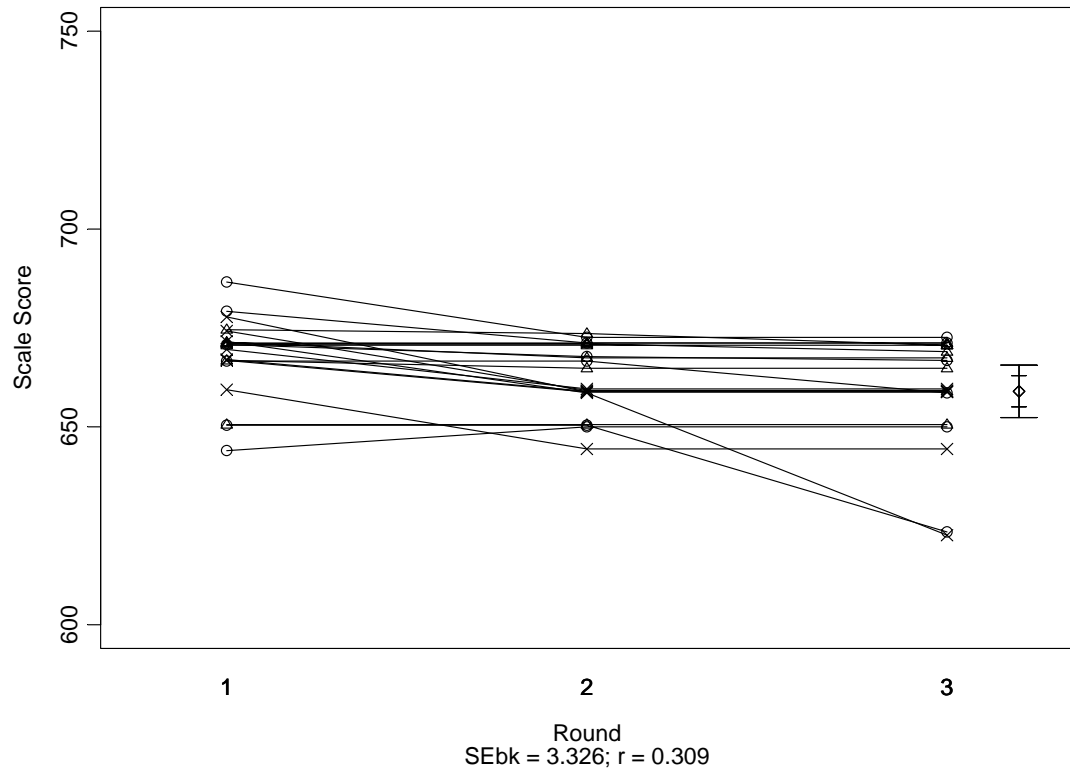
Large Group Round 3 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	12.82	12.08	48.86	26.24
Free & Reduced Lunch	28.48	19.74	42.70	9.08
Students of Color	33.28	20.83	37.71	8.18
Majority	8.04	10.04	51.46	30.45

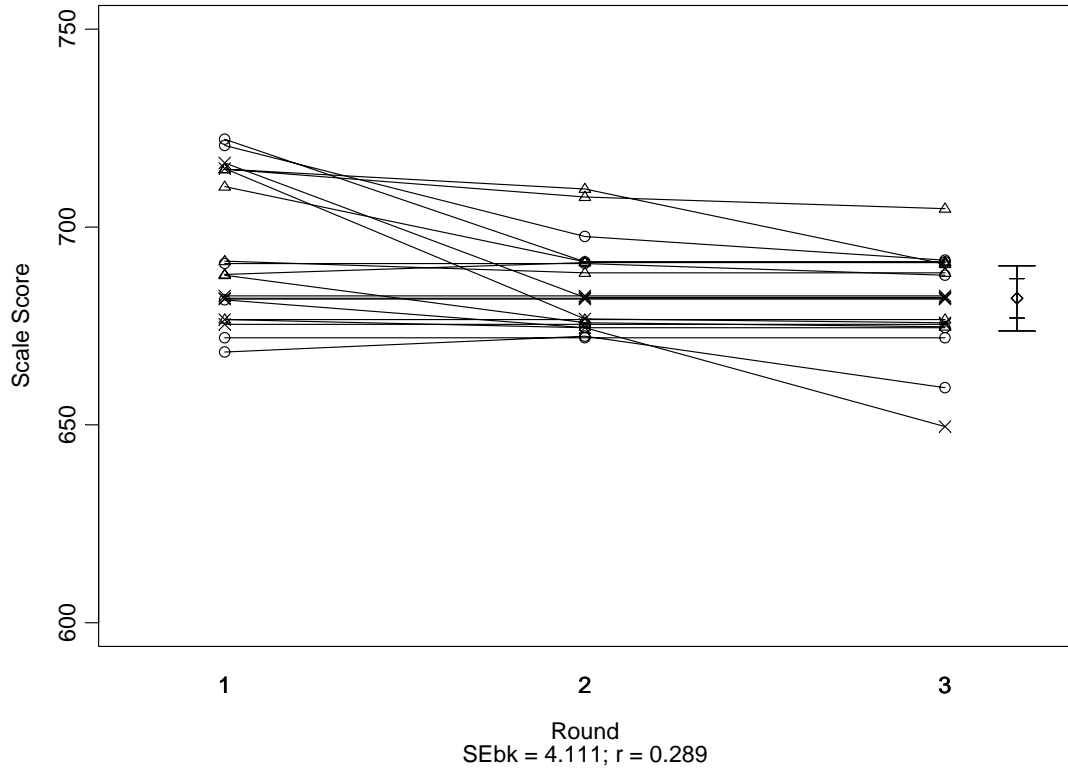


# Grade 8 Mathematics Graphical Representations of Participants' Judgments and Standard Errors

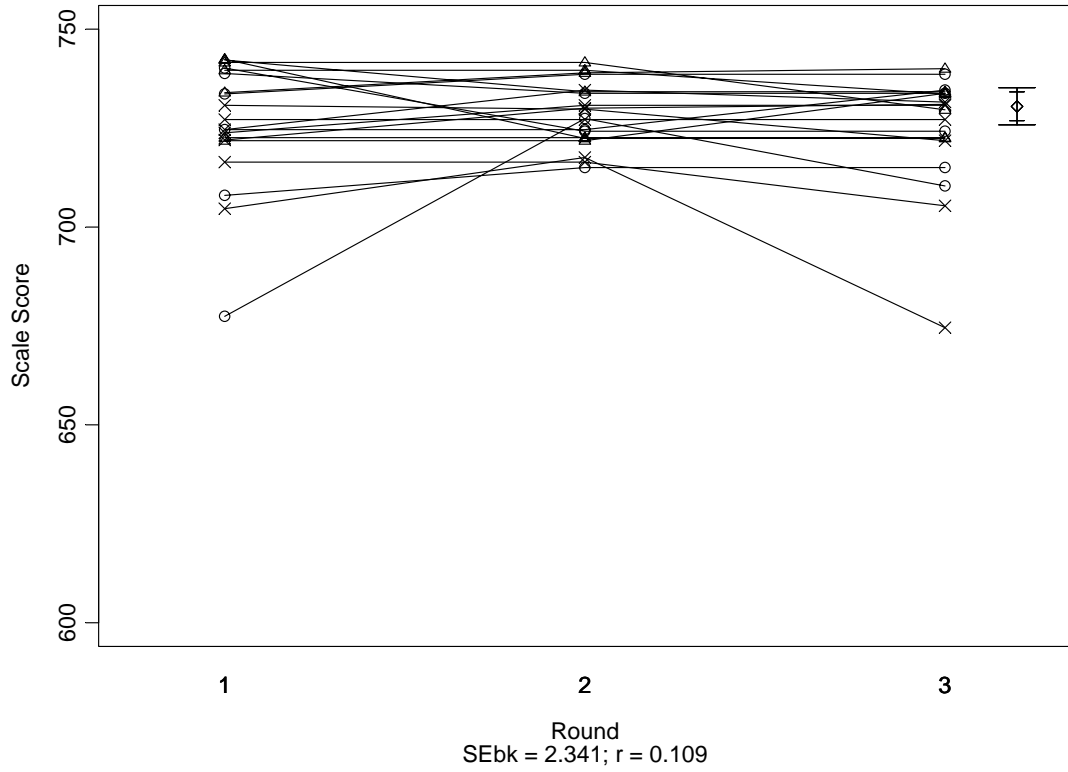
# Wisconsin Grade 8 Mathematics Basic Cutpoint



# Wisconsin Grade 8 Mathematics Proficient Cutpoint



# Wisconsin Grade 8 Mathematics Advanced Cutpoint



## **Section P**

1. Grade 10 Mathematics Detailed Results
2. Grade 10 Mathematics s Impact, Rounds 1, 2, and 3
3. Grade 10 Mathematics Graphical Representations of Participants' Judgments and Standard Errors

## Grade 10 Mathematics Detailed Results

**Wisconsin WKCE Grade 10 Mathematics  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	24	28	55
2	15	39	68
3	9	24	40
4	11	28	42
5	7	17	63
6	12	18	37
7	17	25	50
8	8	24	34
Median	11.5	24.5	46
Minimum	7	17	34
Maximum	24	39	68

**Wisconsin WKCE Grade 10 Mathematics  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	11	23
2	15	22	38
3	13	18	53
4	12	31	51
5	20	33	55
6	12	28	61
Median	12.5	25	52
Minimum	7	11	23
Maximum	20	33	61



**Wisconsin WKCE Grade 10 Mathematics  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	25	46	62
2	15	30	52
3	20	25	56
4	13	23	45
5	11	30	60
6	12	30	46
Median	14	30	54
Minimum	11	23	45
Maximum	25	46	62

**Wisconsin WKCE Grade 10 Mathematics Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	12.5	26.5	51.5
Minimum	7	11	23
Maximum	25	46	68
SD	5.13	7.84	11.37

**Wisconsin WKCE Grade 10 Mathematics  
Group 1 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	723	731	758
2	716	739	782
3	698	723	739
4	702	731	740
5	693	718	774
6	711	719	737
7	718	728	754
8	696	723	735
Median	702	723	746
Minimum	693	718	735
Maximum	723	739	782

**Wisconsin WKCE Grade 10 Mathematics  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	693	702	723
2	716	722	738
3	714	719	757
4	711	733	754
5	720	734	758
6	711	731	769
Median	711	728	756
Minimum	693	702	723
Maximum	720	734	769

**Wisconsin WKCE Grade 10 Mathematics  
Group 3 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	728	746	773
2	716	733	756
3	720	728	758
4	714	723	742
5	702	733	769
6	711	733	746
<b>Median</b>	715	733	757
<b>Minimum</b>	702	723	742
<b>Maximum</b>	728	746	773

**Wisconsin WKCE Grade 10 Mathematics Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	711	728	754
Minimum	693	702	723
Maximum	728	746	782
SD	10.02	9.41	15.57

## Wisconsin WKCE Grade 10 Mathematics Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	11.5	24.5	46
Group 2 Median	12.5	25	52
Group 3 Median	14	30	54
Large Group	12.5	26.5	51.5

**Wisconsin WKCE Grade 10 Mathematics  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	14	24	55
2	12	32	67
3	11	24	43
4	11	23	48
5	9	22	53
6	12	22	49
7	12	23	50
8	8	24	49
Median	11.5	23.5	49.5
Minimum	8	22	43
Maximum	14	32	67



**Wisconsin WKCE Grade 10 Mathematics  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	18	47
2	16	22	51
3	13	19	54
4	11	19	51
5	15	25	46
6	12	24	61
Median	12.5	20.5	51
Minimum	11	18	46
Maximum	16	25	61

**Wisconsin WKCE Grade 10 Mathematics  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	15	30	60
2	15	28	60
3	18	23	56
4	17	30	60
5	17	30	60
6	13	29	47
Median	16	29.5	60
Minimum	13	23	47
Maximum	18	30	60

**Wisconsin WKCE Grade 10 Mathematics Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	12.5	24	52
Minimum	8	18	43
Maximum	18	32	67
SD	2.68	4.03	6.34

**Wisconsin WKCE Grade 10 Mathematics  
Group 1 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	715	723	758
2	711	734	777
3	702	723	741
4	702	723	748
5	698	722	757
6	711	722	749
7	711	723	754
8	696	723	749
<b>Median</b>	702	723	749
<b>Minimum</b>	696	722	741
<b>Maximum</b>	715	734	777

**Wisconsin WKCE Grade 10 Mathematics  
Group 2 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	711	719	747
2	716	722	754
3	714	719	757
4	702	719	754
5	716	728	746
6	711	723	769
Median	711	720	754
Minimum	702	719	746
Maximum	716	728	769

**Wisconsin WKCE Grade 10 Mathematics  
Group 3 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	716	733	769
2	716	731	769
3	719	723	758
4	718	733	769
5	718	733	769
6	714	732	747
Median	716	732	769
Minimum	714	723	747
Maximum	719	733	769

**Wisconsin WKCE Grade 10 Mathematics Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	711	723	756
Minimum	696	719	741
Maximum	719	734	777
SD	6.93	5.36	10.21

## Wisconsin WKCE Grade 10 Mathematics Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	11.5	23.5	49.5
Group 2 Median	12.5	20.5	51
Group 3 Median	16	29.5	60
Large Group	12.5	24	52



**Wisconsin WKCE Grade 10 Mathematics  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	14	24	60
2	15	35	62
3	11	24	51
4	11	23	61
5	11	25	55
6	11	24	49
7	11	23	50
8	8	21	44
Median	11	24	53
Minimum	8	21	44
Maximum	15	35	62

**Wisconsin WKCE Grade 10 Mathematics  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	12	18	60
2	16	22	55
3	12	19	56
4	9	18	60
5	15	25	63
6	11	24	61
Median	12	20.5	60
Minimum	9	18	55
Maximum	16	25	63

**Wisconsin WKCE Grade 10 Mathematics  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	13	25	60
2	12	28	60
3	15	25	56
4	14	30	60
5	11	24	60
6	11	24	59
Median	12.5	25	60
Minimum	11	24	56
Maximum	15	30	60

**Wisconsin WKCE Grade 10 Mathematics Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	11.5	24	60
Minimum	8	18	44
Maximum	16	35	63
SD	2.11	3.90	5.07

**Wisconsin WKCE Grade 10 Mathematics  
Group 1 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	715	723	769
2	716	736	773
3	702	723	754
4	702	723	769
5	702	728	758
6	702	723	749
7	702	723	754
8	696	721	741
Median	702	723	757
Minimum	696	721	741
Maximum	716	736	773

**Wisconsin WKCE Grade 10 Mathematics  
Group 2 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	711	719	769
2	716	722	758
3	711	719	758
4	698	719	769
5	716	728	774
6	702	723	769
Median	711	720	769
Minimum	698	719	758
Maximum	716	728	774

**Wisconsin WKCE Grade 10 Mathematics  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	714	728	769
2	711	731	769
3	716	728	758
4	715	733	769
5	702	723	769
6	702	723	765
Median	711	728	769
Minimum	702	723	758
Maximum	716	733	769

**Wisconsin WKCE Grade 10 Mathematics Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	702	723	769
Minimum	696	719	741
Maximum	716	736	774
SD	6.99	4.73	8.91



## Wisconsin WKCE Grade 10 Mathematics Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	11	24	53
Group 2 Median	12	20.5	60
Group 3 Median	12.5	25	60
Large Group	11.5	24	60

## Grade 10 Mathematics Impact, Rounds 1, 2, and 3

Wisconsin Grade 10 Mathematics

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	18.62	13.21	28.41	39.76
Free & Reduced Lunch	38.71	18.50	25.50	17.29
Students of Color	45.88	18.86	21.55	13.72
Majority	13.71	12.19	29.65	44.45

Wisconsin Grade 10 Mathematics

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	18.62	7.25	34.37	39.76
Free & Reduced Lunch	38.71	10.73	33.26	17.29
Students of Color	45.88	11.23	29.18	13.72
Majority	13.71	6.54	35.30	44.45

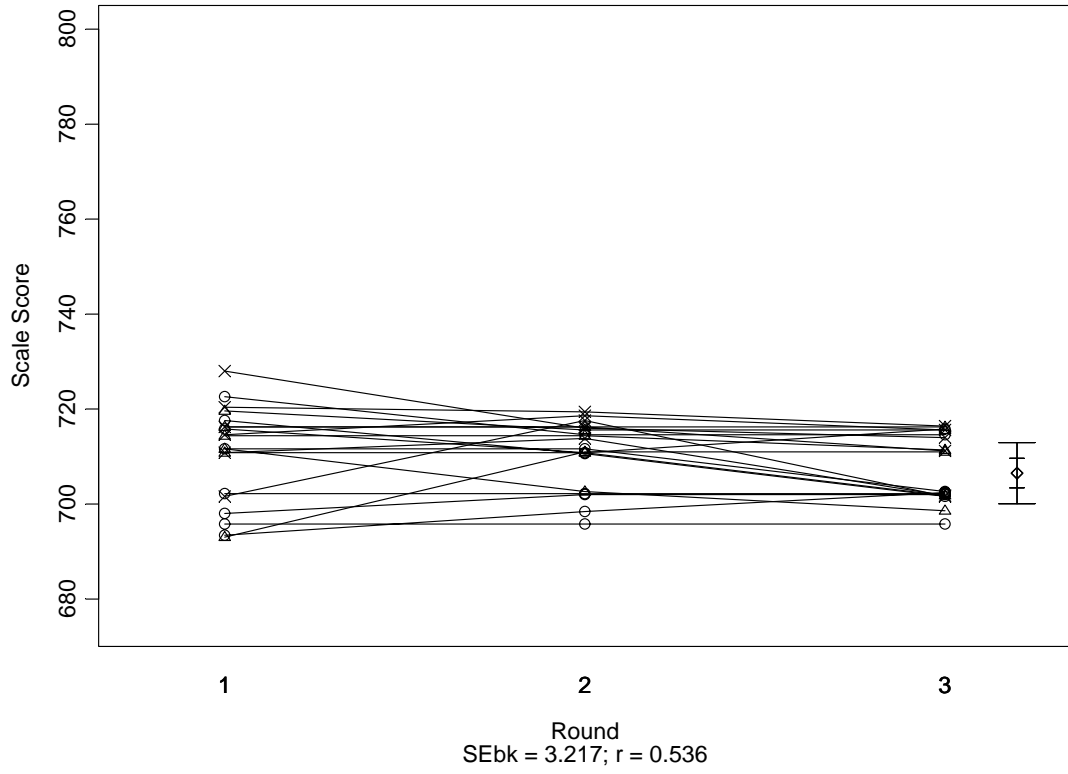
Wisconsin Grade 10 Mathematics

Large Group Round 3 Impact Data

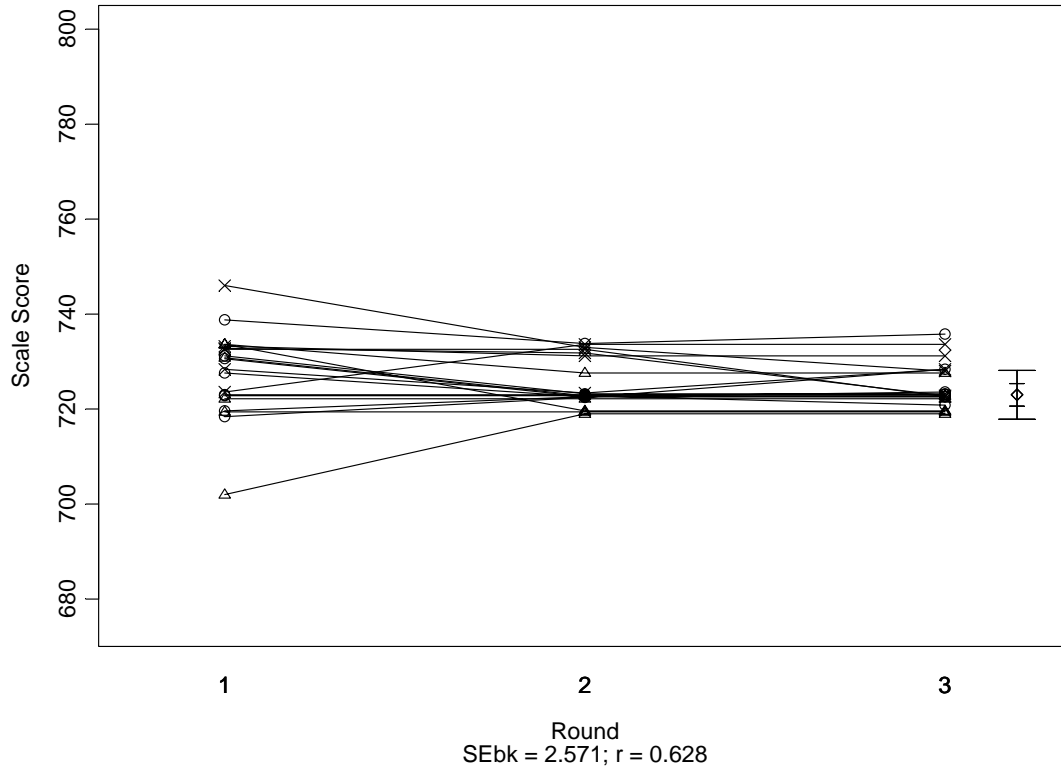
	Minimal Performance	Basic	Proficient	Advanced
All Students	14.67	11.21	49.12	25.01
Free & Reduced Lunch	31.89	17.56	41.82	8.74
Students of Color	37.88	19.22	35.49	7.41
Majority	10.48	9.76	51.57	28.18

Grade 10 Mathematics Graphical Representations of  
Participants' Judgments and Standard Errors

# Wisconsin Grade 10 Mathematics Basic Cutpoint

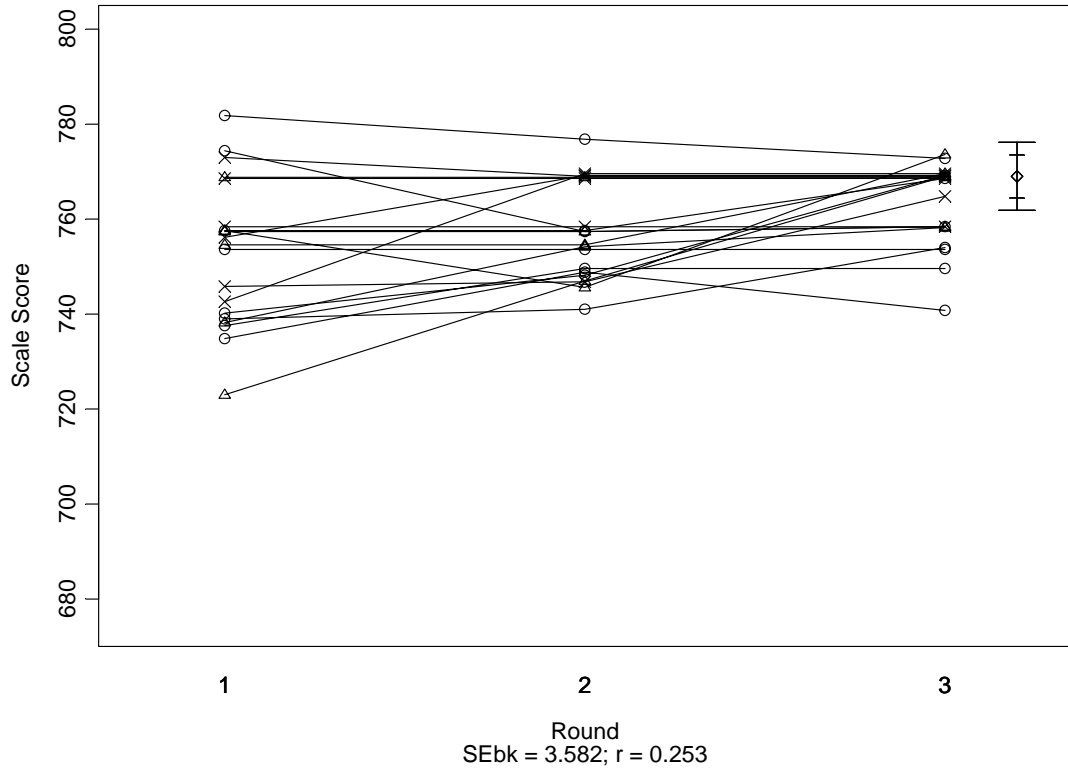


# Wisconsin Grade 10 Mathematics Proficient Cutpoint





# Wisconsin Grade 10 Mathematics Advanced Cutpoint



## **Section Q**

1. Grade 4 Science Detailed Results
2. Grade 4 Science Impact, Rounds 1, 2, and 3
3. Grade 4 Science Graphical Representations of Participants' Judgments and Standard Errors

# Grade 4 Science Detailed Results

**Wisconsin WKCE Grade 4 Science  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	15	35	60
2	19	42	61
3	9	24	58
4	10	21	54
5	10	27	57
Median	10	27	58
Minimum	9	21	54
Maximum	19	42	61

**Wisconsin WKCE Grade 4 Science  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	9	29
2	19	23	43
3	12	38	56
4	9	25	46
5	25	36	54
6	8	23	52
7	8	24	43
Median	9	24	46
Minimum	4	9	29
Maximum	25	38	56

**Wisconsin WKCE Grade 4 Science  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	8	52
2	5	22	53
3	17	26	42
4	7	16	20
5	5	21	24
6	11	24	29
Median	6	21.5	35.5
Minimum	4	8	20
Maximum	17	26	53

**Wisconsin WKCE Grade 4 Science Round 1 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	9.5	24	52
Minimum	4	8	20
Maximum	25	42	61
SD	5.90	8.94	12.85

**Wisconsin WKCE Grade 4 Science  
Group 1 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	600	643	681
2	612	652	682
3	585	623	679
4	585	615	674
5	585	629	678
Median	585	629	679
Minimum	585	615	674
Maximum	612	652	682



**Wisconsin WKCE Grade 4 Science  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	539	585	634
2	612	623	655
3	587	647	675
4	585	628	659
5	628	646	674
6	579	623	665
7	579	623	655
Median	585	623	659
Minimum	539	585	634
Maximum	628	647	675

**Wisconsin WKCE Grade 4 Science  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	539	579	665
2	550	615	672
3	603	628	652
4	568	603	614
5	550	615	623
6	587	623	634
Median	567	615	643
Minimum	539	579	614
Maximum	603	628	672

**Wisconsin WKCE Grade 4 Science Round 1 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	585	623	665
Minimum	539	579	614
Maximum	628	652	682
SD	25.04	19.34	20.86

## Wisconsin WKCE Grade 4 Science Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	10	27	58
Group 2 Median	9	24	46
Group 3 Median	6	21.5	35.5
Large Group	9.5	24	52

**Wisconsin WKCE Grade 4 Science  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	9	24	53
2	10	29	58
3	10	24	58
4	10	21	54
5	10	23	53
Median	10	24	54
Minimum	9	21	53
Maximum	10	29	58

**Wisconsin WKCE Grade 4 Science  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	19	36
2	8	19	54
3	8	24	45
4	8	23	43
5	11	22	41
6	8	20	58
7	8	23	49
Median	8	22	45
Minimum	8	19	36
Maximum	11	24	58

**Wisconsin WKCE Grade 4 Science  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	8	52
2	5	15	48
3	9	19	31
4	6	15	20
5	6	13	24
6	4	11	19
Median	5.5	14	27.5
Minimum	4	8	19
Maximum	9	19	52

**Wisconsin WKCE Grade 4 Science Round 2 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	8	20.5	48.5
Minimum	4	8	19
Maximum	11	29	58
SD	2.11	5.34	13.06



**Wisconsin WKCE Grade 4 Science  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	585	623	672
2	585	634	679
3	585	623	679
4	585	615	674
5	585	623	672
Median	585	623	674
Minimum	585	615	672
Maximum	585	634	679

**Wisconsin WKCE Grade 4 Science  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	579	612	646
2	579	612	674
3	579	623	658
4	579	623	655
5	587	615	650
6	579	614	679
7	579	623	663
Median	579	615	658
Minimum	579	612	646
Maximum	587	623	679

**Wisconsin WKCE Grade 4 Science  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	539	579	665
2	550	600	660
3	585	612	639
4	567	600	614
5	567	590	623
6	539	587	612
Median	550	598	629
Minimum	539	579	612
Maximum	585	612	665

**Wisconsin WKCE Grade 4 Science Round 2 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	579	614	660
Minimum	539	579	612
Maximum	587	634	679
SD	15.50	14.68	21.91

## Wisconsin WKCE Grade 4 Science Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	10	24	54
Group 2 Median	8	22	45
Group 3 Median	5.5	14	27.5
Large Group	8	20.5	48.5

**Wisconsin WKCE Grade 4 Science  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	21	46
2	10	22	58
3	9	21	54
4	10	21	54
5	9	21	49
Median	9	21	54
Minimum	8	21	46
Maximum	10	22	58

**Wisconsin WKCE Grade 4 Science  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	11	47
2	8	19	56
3	8	18	51
4	8	23	46
5	10	18	43
6	8	18	49
7	8	23	49
Median	8	18	49
Minimum	6	11	43
Maximum	10	23	56

**Wisconsin WKCE Grade 4 Science  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	8	52
2	7	22	52
3	7	22	44
4	7	18	39
5	6	15	44
6	5	13	43
Median	6.5	16.5	44
Minimum	4	8	39
Maximum	7	22	52



**Wisconsin WKCE Grade 4 Science Round 3 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	8	20	49
Minimum	4	8	39
Maximum	10	23	58
SD	1.68	4.29	5.11

**Wisconsin WKCE Grade 4 Science  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	579	615	659
2	585	615	679
3	585	615	674
4	585	615	674
5	585	615	663
Median	585	615	674
Minimum	579	615	659
Maximum	585	615	679

**Wisconsin WKCE Grade 4 Science  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	567	587	659
2	579	612	675
3	579	604	665
4	579	623	659
5	585	604	655
6	579	604	663
7	579	623	663
Median	579	604	663
Minimum	567	587	655
Maximum	585	623	675

**Wisconsin WKCE Grade 4 Science  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	539	579	665
2	568	615	665
3	568	615	655
4	568	604	647
5	567	600	655
6	550	590	655
Median	567	603	655
Minimum	539	579	647
Maximum	568	615	665

**Wisconsin WKCE Grade 4 Science Round 3 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	579	614	663
Minimum	539	579	647
Maximum	585	623	679
SD	12.63	12.08	8.48

## Wisconsin WKCE Grade 4 Science Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	9	21	54
Group 2 Median	8	18	49
Group 3 Median	6.5	16.5	44
Large Group	8	20	49

## Grade 4 Science Impact, Rounds 1, 2, and 3

Wisconsin Grade 4 Science

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	5.45	24.04	51.26	19.24
Free & Reduced Lunch	12.15	37.96	41.89	8.00
Students of Color	16.25	41.75	35.37	6.63
Majority	2.42	19.06	55.73	22.78



Wisconsin Grade 4 Science

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	4.52	16.52	56.31	22.64
Free & Reduced Lunch	10.26	28.42	51.59	9.73
Students of Color	13.74	32.55	45.74	7.97
Majority	1.93	12.02	59.29	26.77

Wisconsin Grade 4 Science

Large Group Round 3 Impact Data

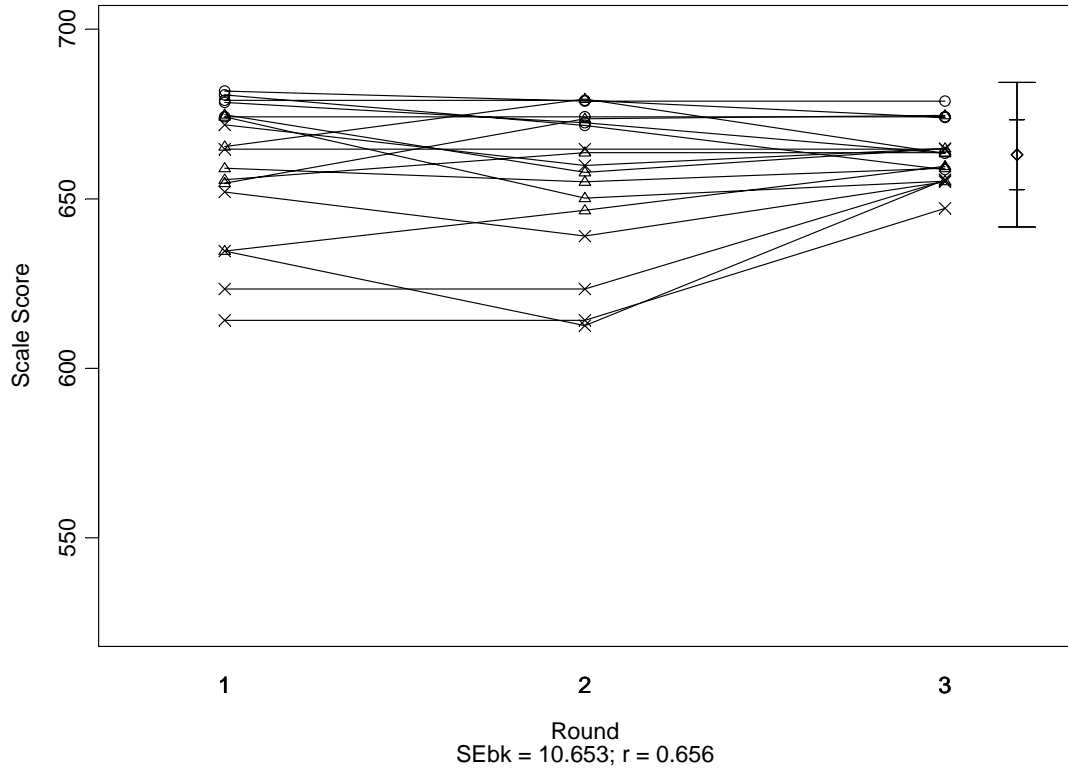
	Minimal Performance	Basic	Proficient	Advanced
All Students	4.52	16.52	59.71	19.24
Free & Reduced Lunch	10.26	28.42	53.32	8.00
Students of Color	13.74	32.55	47.07	6.63
Majority	1.93	12.02	63.27	22.78

# Grade 4 Science Graphical Representations of Participants' Judgments and Standard Errors





# Wisconsin Grade 4 Science Advanced Cutpoint



## **Section R**

1. Grade 8 Science Detailed Results
2. Grade 8 Science Impact, Rounds 1, 2, and 3
3. Grade 8 Science Graphical Representations of Participants' Judgments and Standard Errors

## Grade 8 Science Detailed Results



**Wisconsin WKCE Grade 8 Science  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	10	22	52
2	18	30	50
3	10	20	53
4	6	24	47
5	6	18	42
6	11	33	60
7	15	31	62
Median	10	24	52
Minimum	6	18	42
Maximum	18	33	62

**Wisconsin WKCE Grade 8 Science  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	9	26	61
2	12	30	60
3	7	33	66
4	6	22	46
5	26	50	75
6	8	49	75
7	9	29	61
Median	9	30	61
Minimum	6	22	46
Maximum	26	50	75

**Wisconsin WKCE Grade 8 Science  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	10	72
2	4	20	35
3	9	26	49
4	7	26	55
5	13	27	49
6	8	21	37
Median	7.5	23.5	49
Minimum	4	10	35
Maximum	13	27	72

**Wisconsin WKCE Grade 8 Science Round 1 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	9	26	54
Minimum	4	10	35
Maximum	26	50	75
SD	5.07	9.42	11.53

**Wisconsin WKCE Grade 8 Science  
Group 1 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	667	686	717
2	679	694	716
3	667	682	717
4	660	687	715
5	660	679	706
6	669	699	733
7	676	696	739
Median	667	687	717
Minimum	660	679	706
Maximum	679	699	739

**Wisconsin WKCE Grade 8 Science  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	666	688	735
2	670	694	733
3	663	699	746
4	660	686	714
5	688	716	798
6	665	715	798
7	666	693	735
Median	666	694	735
Minimum	660	686	714
Maximum	688	716	798

**Wisconsin WKCE Grade 8 Science  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	660	667	775
2	643	682	699
3	666	688	715
4	663	688	721
5	673	689	715
6	665	685	704
Median	663	686	715
Minimum	643	667	699
Maximum	673	689	775

**Wisconsin WKCE Grade 8 Science Round 1 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	666	688	717
Minimum	643	667	699
Maximum	688	716	798
SD	8.95	11.28	28.48



## Wisconsin WKCE Grade 8 Science Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	10	24	52
Group 2 Median	9	30	61
Group 3 Median	7.5	23.5	49
Large Group	9	26	54

**Wisconsin WKCE Grade 8 Science  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	9	23	45
2	6	21	45
3	6	16	53
4	8	28	47
5	9	25	49
6	9	24	50
7	10	27	57
Median	9	24	49
Minimum	6	16	45
Maximum	10	28	57

**Wisconsin WKCE Grade 8 Science  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	26	61
2	9	26	62
3	9	27	62
4	9	25	62
5	14	30	67
6	6	19	61
7	7	24	61
Median	9	26	62
Minimum	6	19	61
Maximum	14	30	67

**Wisconsin WKCE Grade 8 Science  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	10	72
2	4	20	35
3	9	24	49
4	6	20	48
5	9	19	38
6	8	18	37
Median	7	19.5	43
Minimum	4	10	35
Maximum	9	24	72

**Wisconsin WKCE Grade 8 Science Round 2 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	8.5	24	51.5
Minimum	4	10	35
Maximum	14	30	72
SD	2.13	4.75	10.37

**Wisconsin WKCE Grade 8 Science  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	666	686	713
2	660	685	713
3	660	679	717
4	665	693	715
5	666	687	715
6	666	687	716
7	667	689	723
Median	666	687	715
Minimum	660	679	713
Maximum	667	693	723

**Wisconsin WKCE Grade 8 Science  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	663	688	735
2	666	688	739
3	666	689	739
4	666	687	739
5	674	694	751
6	660	680	735
7	663	687	735
Median	666	688	739
Minimum	660	680	735
Maximum	674	694	751

**Wisconsin WKCE Grade 8 Science  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	660	667	775
2	643	682	699
3	666	687	715
4	660	682	715
5	666	680	704
6	665	679	704
Median	663	680	709
Minimum	643	667	699
Maximum	666	687	775



**Wisconsin WKCE Grade 8 Science Round 2 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	665	687	717
Minimum	643	667	699
Maximum	674	694	775
SD	5.83	6.01	18.53

## Wisconsin WKCE Grade 8 Science Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	9	24	49
Group 2 Median	9	26	62
Group 3 Median	7	19.5	43
Large Group	8.5	24	51.5

**Wisconsin WKCE Grade 8 Science  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	20	49
2	6	19	41
3	6	19	49
4	9	26	47
5	8	20	49
6	10	20	53
7	9	22	55
Median	8	20	49
Minimum	6	19	41
Maximum	10	26	55

**Wisconsin WKCE Grade 8 Science  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	20	61
2	6	22	62
3	9	22	62
4	6	20	62
5	10	25	60
6	6	19	53
7	6	19	61
Median	6	20	61
Minimum	6	19	53
Maximum	10	25	62

**Wisconsin WKCE Grade 8 Science  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	19	49
2	6	20	53
3	10	26	54
4	5	19	49
5	6	20	50
6	8	20	60
Median	6	20	51.5
Minimum	5	19	49
Maximum	10	26	60

**Wisconsin WKCE Grade 8 Science Round 3 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	6	20	53
Minimum	5	19	41
Maximum	10	26	62
SD	1.70	2.30	6.18

**Wisconsin WKCE Grade 8 Science  
Group 1 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	660	682	715
2	660	680	706
3	660	680	715
4	666	688	715
5	665	682	715
6	667	682	717
7	666	686	721
Median	665	682	715
Minimum	660	680	706
Maximum	667	688	721

**Wisconsin WKCE Grade 8 Science  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	660	682	735
2	660	686	739
3	666	686	739
4	660	682	739
5	667	687	733
6	660	680	717
7	660	680	735
Median	660	682	735
Minimum	660	680	717
Maximum	667	687	739



**Wisconsin WKCE Grade 8 Science  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	660	680	715
2	660	682	717
3	667	688	717
4	656	680	715
5	660	682	716
6	665	682	733
Median	660	682	717
Minimum	656	680	715
Maximum	667	688	733

**Wisconsin WKCE Grade 8 Science Round 3 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	660	682	717
Minimum	656	680	706
Maximum	667	688	739
SD	3.05	2.76	10.44

## Wisconsin WKCE Grade 8 Science Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	8	20	49
Group 2 Median	6	20	61
Group 3 Median	6	20	51.5
Large Group	6	20	53

## Grade 8 Science Impact, Rounds 1, 2, and 3

Wisconsin Grade 8 Science

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	13.12	18.41	43.08	25.38
Free & Reduced Lunch	30.52	27.47	32.52	9.48
Students of Color	37.28	28.77	26.86	7.09
Majority	7.51	16.00	46.85	29.63

Wisconsin Grade 8 Science

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	11.81	19.73	43.08	25.38
Free & Reduced Lunch	27.97	30.03	32.52	9.48
Students of Color	34.33	31.72	26.86	7.09
Majority	6.57	16.94	46.85	29.63

Wisconsin Grade 8 Science

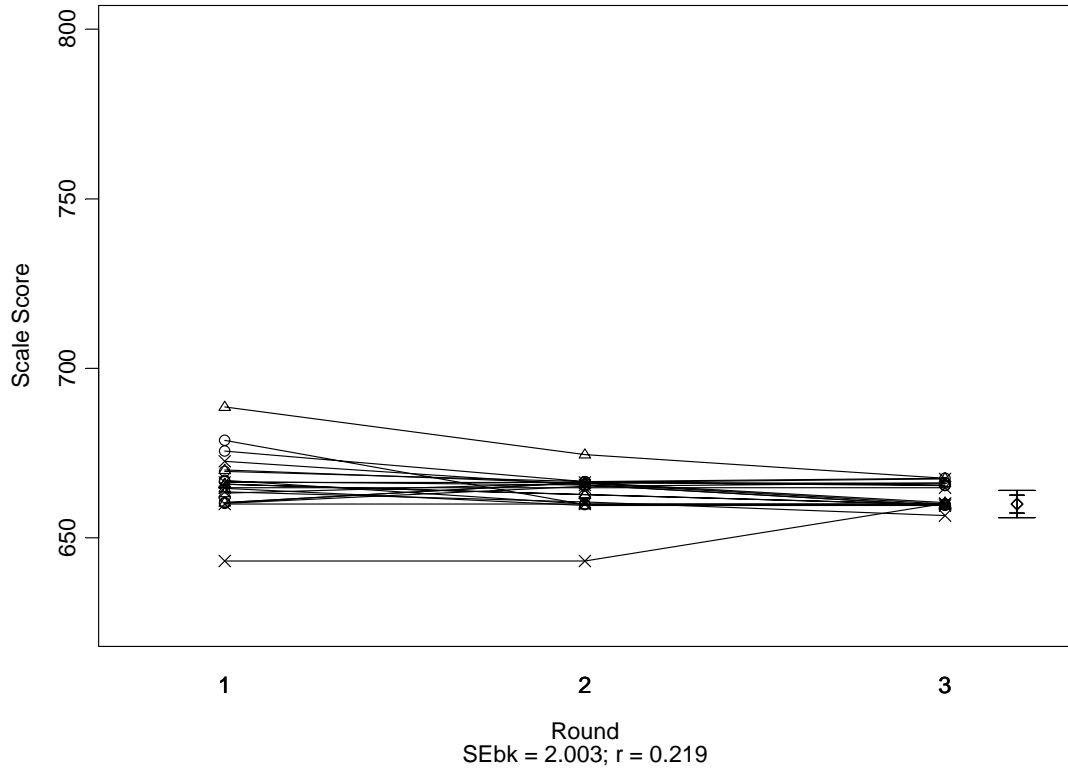
Large Group Round 3 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	9.52	15.19	49.90	25.38
Free & Reduced Lunch	23.23	26.35	40.93	9.48
Students of Color	28.72	28.67	35.52	7.09
Majority	5.06	12.06	53.25	29.63

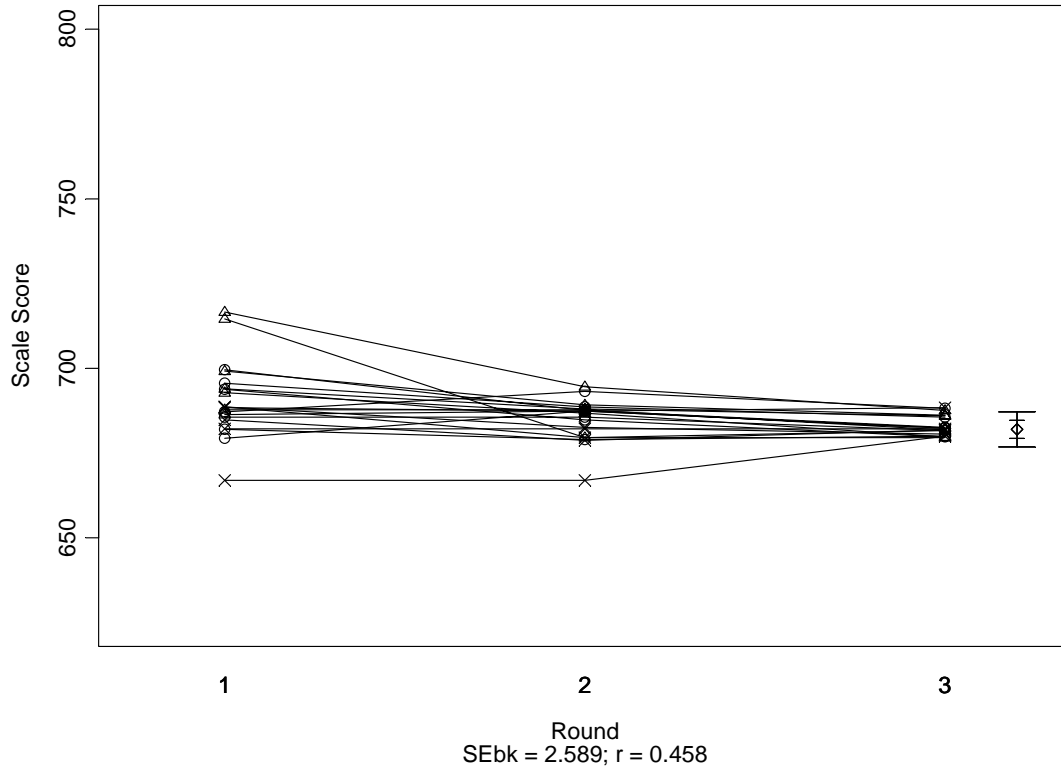
Grade 8 Science Graphical Representations of Participants'  
Judgments and Standard Errors



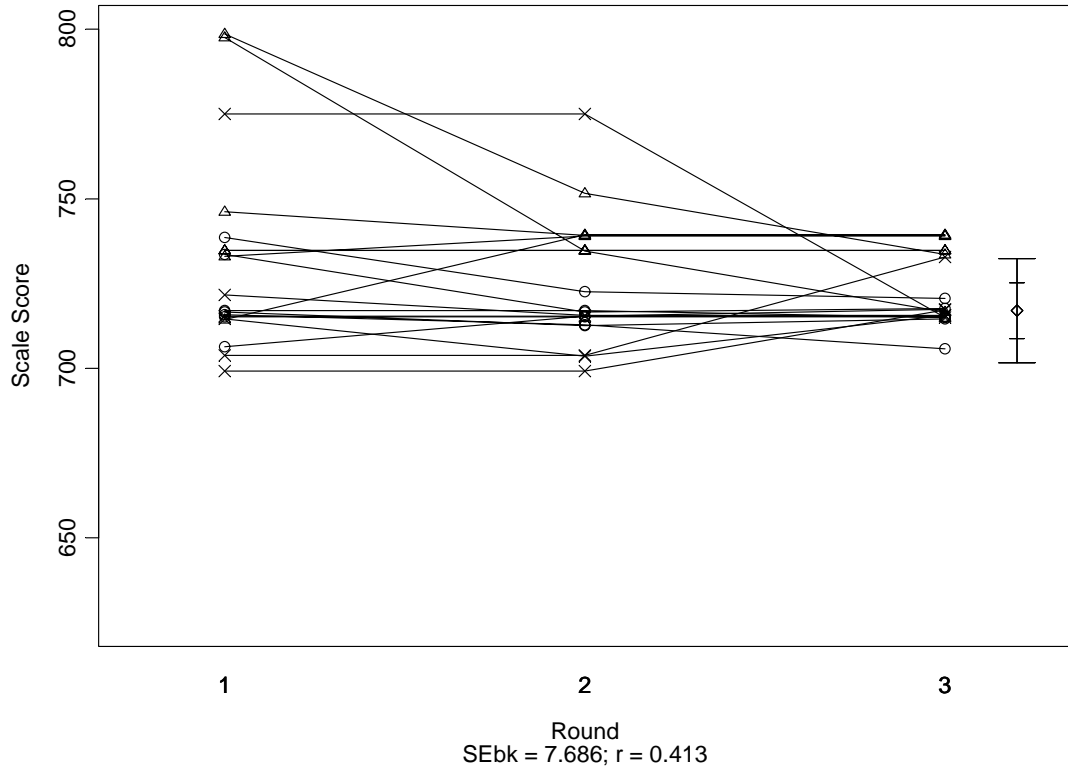
# Wisconsin Grade 8 Science Basic Cutpoint



# Wisconsin Grade 8 Science Proficient Cutpoint



# Wisconsin Grade 8 Science Advanced Cutpoint



## **Section S**

1. Grade 10 Science Detailed Results
2. Grade 10 Science Impact, Rounds 1, 2, and 3
3. Grade 10 Science Graphical Representations of Participants' Judgments and Standard Errors

## Grade 10 Science Detailed Results

**Wisconsin WKCE Grade 10 Science  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	20	46
2	12	26	44
3	12	28	55
4	15	32	46
5	15	35	51
6	26	39	54
Median	13.5	30	48.5
Minimum	11	20	44
Maximum	26	39	55

**Wisconsin WKCE Grade 10 Science  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	18	39
2	14	23	50
3	21	30	48
4	16	37	49
5	13	43	56
6	13	24	37
Median	13.5	27	48.5
Minimum	8	18	37
Maximum	21	43	56

**Wisconsin WKCE Grade 10 Science  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	16	38	51
2	9	15	37
3	9	24	38
4	8	21	38
5	10	25	52
6	6	36	45
7	19	36	47
Median	9	25	45
Minimum	6	15	37
Maximum	19	38	52



**Wisconsin WKCE Grade 10 Science Round 1 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	13	28	47
Minimum	6	15	37
Maximum	26	43	56
SD	4.94	8.02	6.24

**Wisconsin WKCE Grade 10 Science  
Group 1 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	701	710	756
2	701	724	754
3	701	728	776
4	705	732	756
5	705	734	772
6	724	747	776
Median	703	731	761
Minimum	701	710	754
Maximum	724	747	776

**Wisconsin WKCE Grade 10 Science  
Group 2 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	697	709	747
2	704	717	767
3	711	731	761
4	705	738	767
5	703	754	777
6	703	718	738
Median	703	724	761
Minimum	697	709	738
Maximum	711	754	777

**Wisconsin WKCE Grade 10 Science  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	705	740	772
2	698	705	738
3	698	718	740
4	697	711	740
5	700	723	775
6	696	736	755
7	709	736	757
Median	698	723	755
Minimum	696	705	738
Maximum	709	740	775

**Wisconsin WKCE Grade 10 Science Round 1 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	703	728	757
Minimum	696	705	738
Maximum	724	754	777
SD	6.47	13.58	13.92

## Wisconsin WKCE Grade 10 Science Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	13.5	30	48.5
Group 2 Median	13.5	27	48.5
Group 3 Median	9	25	45
Large Group	13	28	47

**Wisconsin WKCE Grade 10 Science  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	16	42
2	11	23	44
3	12	28	55
4	10	20	32
5	12	29	51
6	13	26	54
Median	11.5	24.5	47.5
Minimum	8	16	32
Maximum	13	29	55

**Wisconsin WKCE Grade 10 Science  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	22	39
2	13	23	45
3	16	24	48
4	14	35	49
5	13	26	46
6	9	21	34
Median	13	23.5	45.5
Minimum	9	21	34
Maximum	16	35	49



**Wisconsin WKCE Grade 10 Science  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	27	38
2	8	15	38
3	9	24	38
4	8	22	38
5	6	14	29
6	8	28	45
7	8	24	38
Median	8	24	38
Minimum	6	14	29
Maximum	9	28	45

**Wisconsin WKCE Grade 10 Science Round 2 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	10	24	42
Minimum	6	14	29
Maximum	16	35	55
SD	2.67	5.11	7.22

**Wisconsin WKCE Grade 10 Science  
Group 1 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	697	705	754
2	701	717	754
3	701	728	776
4	700	710	732
5	701	731	772
6	703	724	776
<b>Median</b>	701	718	757
<b>Minimum</b>	697	705	732
<b>Maximum</b>	703	731	776

**Wisconsin WKCE Grade 10 Science  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	701	717	747
2	703	717	755
3	705	718	761
4	704	734	767
5	703	724	756
6	698	711	733
Median	703	717	755
Minimum	698	711	733
Maximum	705	734	767

**Wisconsin WKCE Grade 10 Science  
Group 3 Round 2 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	697	724	740
2	697	705	740
3	698	718	740
4	697	717	740
5	696	704	731
6	697	728	755
7	697	718	740
Median	697	718	740
Minimum	696	704	731
Maximum	698	728	755

**Wisconsin WKCE Grade 10 Science Round 2 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	700	718	754
Minimum	696	704	731
Maximum	705	734	776
SD	2.99	8.79	14.58

## Wisconsin WKCE Grade 10 Science Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	11.5	24.5	47.5
Group 2 Median	13	23.5	45.5
Group 3 Median	8	24	38
Large Group	10	24	42

**Wisconsin WKCE Grade 10 Science  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	16	38
2	4	11	44
3	12	28	55
4	9	20	32
5	9	15	35
6	10	20	54
Median	9	18	41
Minimum	4	11	32
Maximum	12	28	55



**Wisconsin WKCE Grade 10 Science  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	11	22	39
2	7	15	26
3	9	20	39
4	9	21	38
5	8	20	38
6	9	20	35
Median	9	20	38
Minimum	7	15	26
Maximum	11	22	39

**Wisconsin WKCE Grade 10 Science  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	10	27	37
2	8	15	38
3	8	23	38
4	8	21	38
5	6	14	29
6	6	21	45
7	4	15	31
Median	8	21	38
Minimum	4	14	29
Maximum	10	27	45

**Wisconsin WKCE Grade 10 Science Round 3 Large Group  
Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	8	20	38
Minimum	4	11	26
Maximum	12	28	55
SD	2.09	4.40	7.30

**Wisconsin WKCE Grade 10 Science  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	697	705	740
2	690	701	754
3	701	728	776
4	698	710	732
5	698	705	734
6	700	710	776
Median	698	709	751
Minimum	690	701	732
Maximum	701	728	776

**Wisconsin WKCE Grade 10 Science  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	701	717	747
2	696	705	724
3	698	710	747
4	698	711	740
5	697	710	740
6	698	710	734
Median	698	710	740
Minimum	696	705	724
Maximum	701	717	747

**Wisconsin WKCE Grade 10 Science  
Group 3 Round 3 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	700	724	738
2	697	705	740
3	697	717	740
4	697	711	740
5	696	704	731
6	696	711	755
7	690	705	732
Median	697	711	740
Minimum	690	704	731
Maximum	700	724	755

**Wisconsin WKCE Grade 10 Science Round 3 Large Group  
Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	697	710	740
Minimum	690	701	724
Maximum	701	728	776
SD	2.97	6.96	13.89

## Wisconsin WKCE Grade 10 Science Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	9	18	41
Group 2 Median	9	20	38
Group 3 Median	8	21	38
Large Group	8	20	38



## Grade 10 Science Impact, Rounds 1, 2, and 3

Wisconsin Grade 10 Science

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	22.75	24.42	34.47	18.36
Free & Reduced Lunch	45.45	25.39	22.14	7.02
Students of Color	54.13	24.10	16.93	4.84
Majority	17.15	24.47	37.61	20.77

Wisconsin Grade 10 Science

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	19.79	13.73	48.12	18.36
Free & Reduced Lunch	40.95	17.27	34.77	7.02
Students of Color	49.56	17.61	27.98	4.84
Majority	14.48	13.04	51.72	20.77

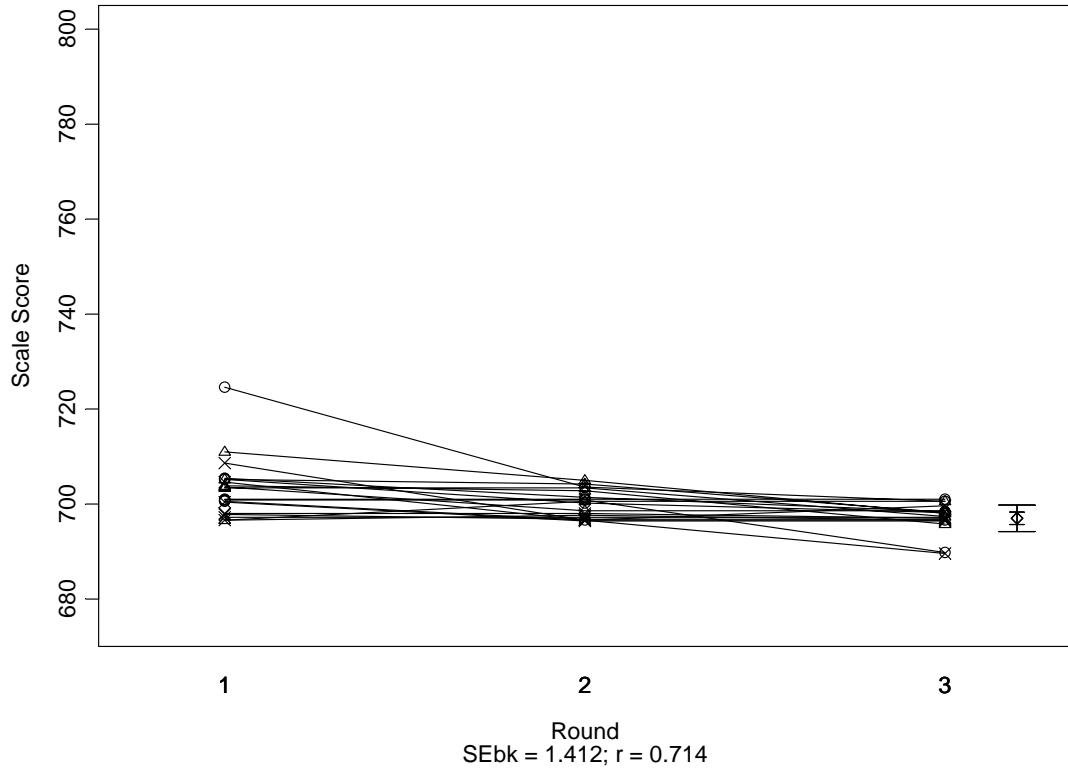
Wisconsin Grade 10 Science

Large Group Round 3 Impact Data

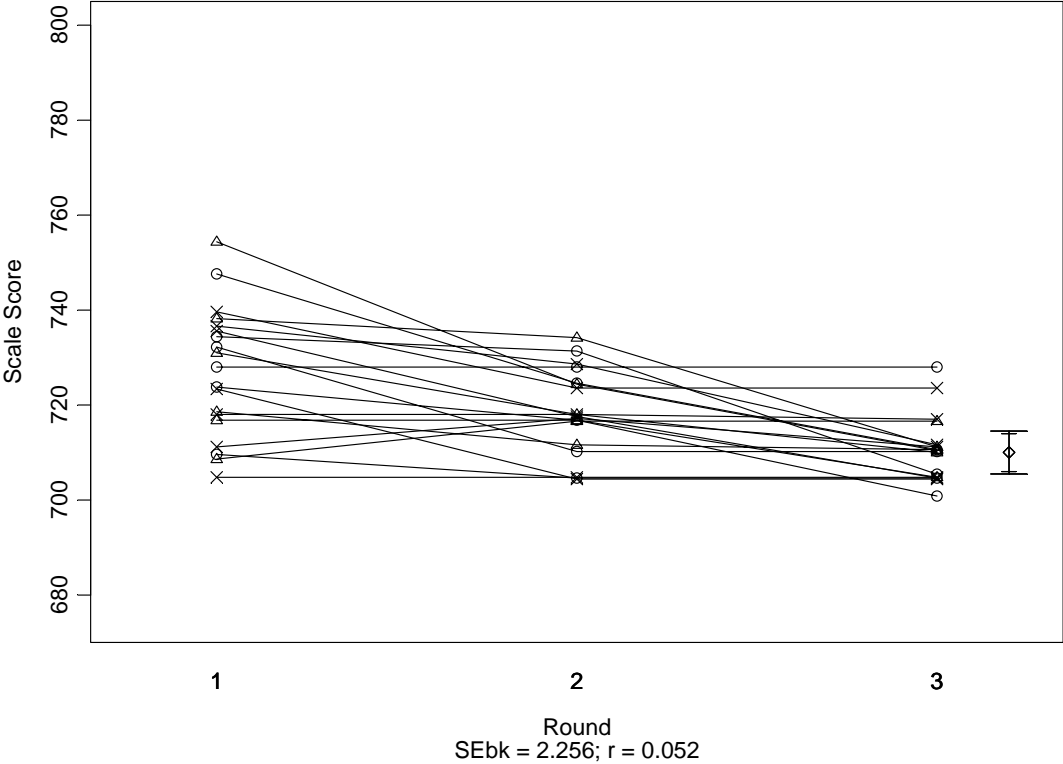
	Minimal Performance	Basic	Proficient	Advanced
All Students	16.99	9.08	36.08	37.85
Free & Reduced Lunch	36.68	12.98	32.03	18.30
Students of Color	44.71	14.06	28.54	12.69
Majority	12.04	8.19	37.43	42.35

## Grade 10 Science Graphical Representations of Participants' Judgments and Standard Errors

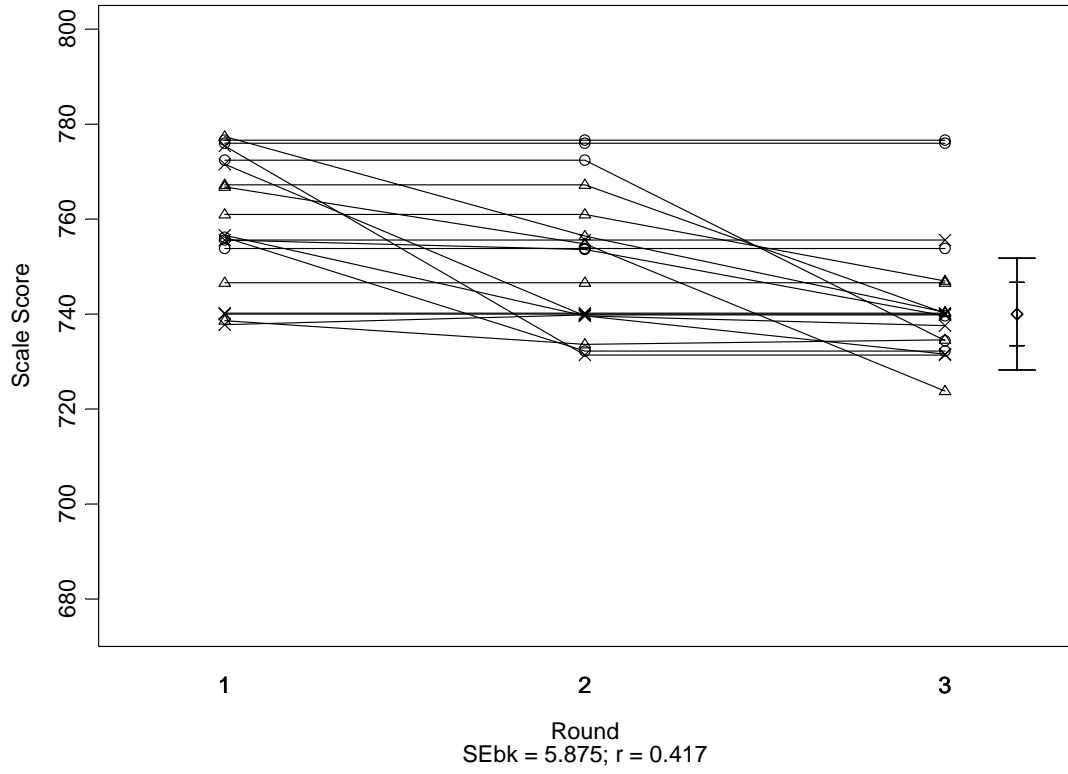
# Wisconsin Grade 10 Science Basic Cutpoint



# Wisconsin Grade 10 Science Proficient Cutpoint



# Wisconsin Grade 10 Science Advanced Cutpoint





## **Section T**

1. Grade 4 Social Studies Detailed Results
2. Grade 4 Social Studies Impact, Rounds 1, 2, and 3
3. Grade 4 Social Studies Graphical Representations of Participants' Judgments and Standard Errors

## Grade 4 Social Studies Detailed Results

**Wisconsin WKCE Grade 4 Social Studies  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	10	24	42
2	7	13	33
3	3	9	14
4	2	10	36
5	5	8	14
6	5	10	17
Median	5	10	25
Minimum	2	8	14
Maximum	10	24	42

**Wisconsin WKCE Grade 4 Social Studies  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	5	16	33
2	8	25	34
3	4	14	24
4	9	15	16
5	4	9	16
6	10	24	48
Median	6.5	15.5	28.5
Minimum	4	9	16
Maximum	10	25	48

**Wisconsin WKCE Grade 4 Social Studies  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	16	25
2	8	16	47
3	10	16	23
4	2	4	5
5	13	25	42
6	10	26	41
Median	9	16	33
Minimum	2	4	5
Maximum	13	26	47

**Wisconsin WKCE Grade 4 Social Studies Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	6.5	15.5	29
Minimum	2	4	5
Maximum	13	26	48
SD	3.20	6.77	12.95

**Wisconsin WKCE Grade 4 Social Studies  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	604	622	641
2	595	607	635
3	575	601	609
4	565	604	639
5	590	601	609
6	590	604	613
Median	590	604	623
Minimum	565	601	609
Maximum	604	622	641

**Wisconsin WKCE Grade 4 Social Studies  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	590	611	635
2	601	623	636
3	589	609	622
4	601	609	611
5	589	601	611
6	604	622	658
Median	592	609	627
Minimum	589	601	611
Maximum	604	623	658



**Wisconsin WKCE Grade 4 Social Studies  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	592	611	623
2	601	611	657
3	604	611	617
4	565	589	590
5	607	623	641
6	604	624	641
Median	601	611	635
Minimum	565	589	590
Maximum	607	624	657

**Wisconsin WKCE Grade 4 Social Studies Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	592	609	628
Minimum	565	589	590
Maximum	607	624	658
SD	12.92	9.65	18.33

## Wisconsin WKCE Grade 4 Social Studies Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	5	10	25
Group 2 Median	6.5	15.5	28.5
Group 3 Median	9	16	33
Large Group	6.5	15.5	29

**Wisconsin WKCE Grade 4 Social Studies  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	13	22
2	7	13	26
3	3	9	14
4	2	10	22
5	5	8	16
6	5	10	18
Median	5	10	20
Minimum	2	8	14
Maximum	7	13	26

**Wisconsin WKCE Grade 4 Social Studies  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	5	18	39
2	9	18	39
3	7	18	39
4	9	18	38
5	9	18	39
6	7	18	39
Median	8	18	39
Minimum	5	18	38
Maximum	9	18	39

**Wisconsin WKCE Grade 4 Social Studies  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	16	41
2	8	16	41
3	10	16	41
4	4	15	25
5	10	18	42
6	10	21	40
Median	9	16	41
Minimum	4	15	25
Maximum	10	21	42

**Wisconsin WKCE Grade 4 Social Studies Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	7	16	39
Minimum	2	8	14
Maximum	10	21	42
SD	2.46	3.79	10.14

**Wisconsin WKCE Grade 4 Social Studies  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	592	607	616
2	595	607	624
3	575	601	609
4	565	604	616
5	590	601	611
6	590	604	613
Median	590	604	614
Minimum	565	601	609
Maximum	595	607	624



**Wisconsin WKCE Grade 4 Social Studies  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	590	613	639
2	601	613	639
3	595	613	639
4	601	613	639
5	601	613	639
6	595	613	639
Median	601	613	639
Minimum	590	613	639
Maximum	601	613	639

**Wisconsin WKCE Grade 4 Social Studies  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	592	611	641
2	601	611	641
3	604	611	641
4	589	609	623
5	604	613	641
6	604	615	639
Median	601	611	641
Minimum	589	609	623
Maximum	604	615	641

**Wisconsin WKCE Grade 4 Social Studies Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	595	611	639
Minimum	565	601	609
Maximum	604	615	641
SD	10.30	4.53	12.59

## Wisconsin WKCE Grade 4 Social Studies Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	5	10	20
Group 2 Median	8	18	39
Group 3 Median	9	16	41
Large Group	7	16	39

**Wisconsin WKCE Grade 4 Social Studies  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	11	29
2	7	13	26
3	3	9	14
4	2	10	22
5	5	10	25
6	5	10	26
Median	5	10	25.5
Minimum	2	9	14
Maximum	7	13	29

**Wisconsin WKCE Grade 4 Social Studies  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	5	18	40
2	7	18	45
3	5	18	44
4	15	38	60
5	9	18	42
6	6	16	39
Median	6.5	18	43
Minimum	5	16	39
Maximum	15	38	60

**Wisconsin WKCE Grade 4 Social Studies  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	16	41
2	8	16	41
3	7	16	44
4	4	16	25
5	4	18	42
6	8	16	33
Median	6.5	16	41
Minimum	4	16	25
Maximum	8	18	44

**Wisconsin WKCE Grade 4 Social Studies Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	6	16	39.5
Minimum	2	9	14
Maximum	15	38	60
SD	2.84	6.39	11.13



**Wisconsin WKCE Grade 4 Social Studies  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	592	605	628
2	595	607	624
3	575	601	609
4	565	604	616
5	590	604	623
6	590	604	624
Median	590	604	623
Minimum	565	601	609
Maximum	595	607	628

**Wisconsin WKCE Grade 4 Social Studies  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	590	613	639
2	595	613	653
3	590	613	651
4	609	639	693
5	601	613	641
6	592	611	639
Median	592	613	648
Minimum	590	611	639
Maximum	609	639	693

**Wisconsin WKCE Grade 4 Social Studies  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	592	611	641
2	601	611	641
3	595	611	651
4	589	611	623
5	589	613	641
6	601	611	635
Median	592	611	641
Minimum	589	611	623
Maximum	601	613	651

**Wisconsin WKCE Grade 4 Social Studies Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	592	611	639
Minimum	565	601	609
Maximum	609	639	693
SD	9.81	8.05	18.71

## Wisconsin WKCE Grade 4 Social Studies Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	5	10	25.5
Group 2 Median	6.5	18	43
Group 3 Median	6.5	16	41
Large Group	6	16	39.5

## Grade 4 Social Studies Impact, Rounds 1, 2, and 3

Wisconsin Grade 4 Social Studies

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	2.15	4.62	13.22	80.00
Free & Reduced Lunch	4.90	9.29	21.37	64.44
Students of Color	6.53	11.00	23.16	59.31
Majority	0.92	2.83	10.43	85.82

Wisconsin Grade 4 Social Studies

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	2.69	5.36	30.48	61.47
Free & Reduced Lunch	6.11	10.47	42.22	41.19
Students of Color	8.01	12.24	42.68	37.08
Majority	1.19	3.43	27.05	68.33



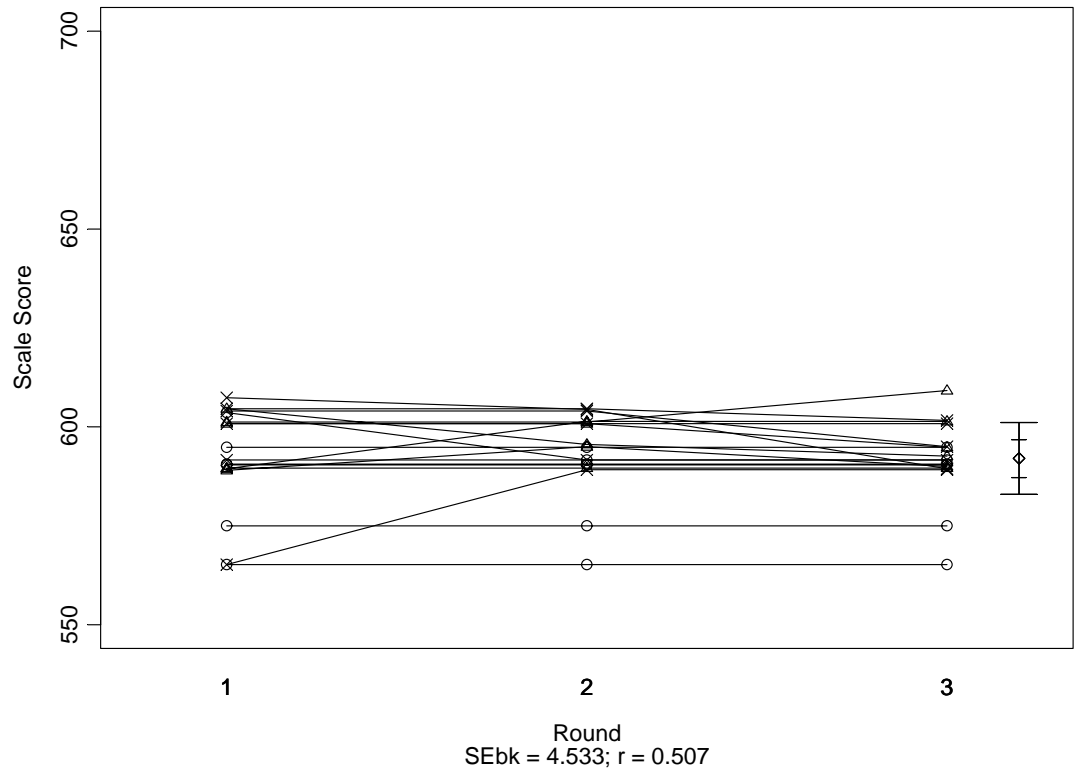
Wisconsin Grade 4 Social Studies

Large Group Round 3 Impact Data

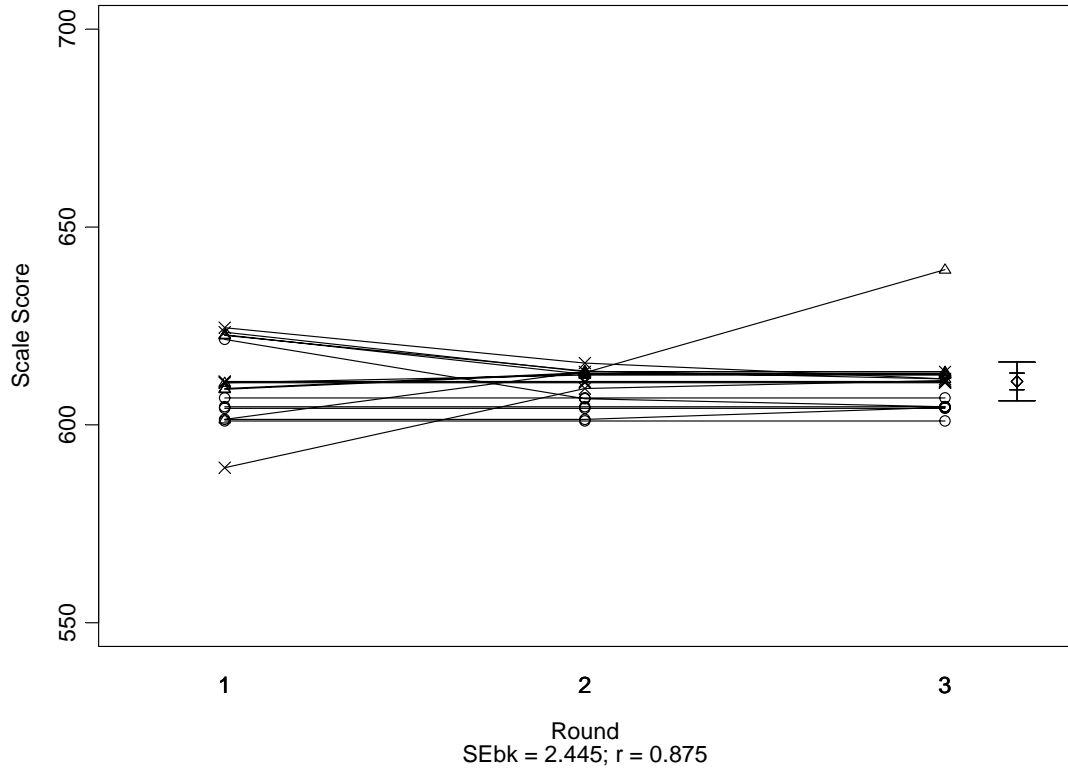
	Minimal Performance	Basic	Proficient	Advanced
All Students	2.15	5.90	30.48	61.47
Free & Reduced Lunch	4.90	11.69	42.22	41.19
Students of Color	6.53	13.72	42.68	37.08
Majority	0.92	3.70	27.05	68.33

Grade 4 Social Studies Graphical Representations of  
Participants' Judgments and Standard Errors

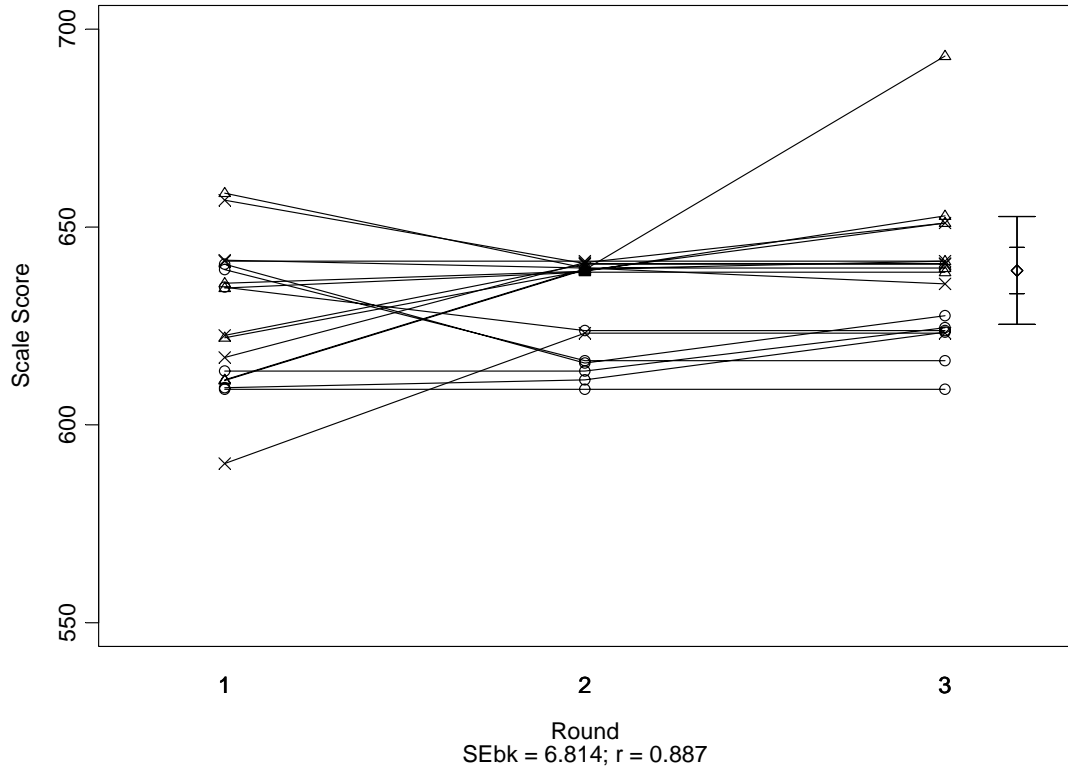
# Wisconsin Grade 4 Social Studies Basic Cutpoint



# Wisconsin Grade 4 Social Studies Proficient Cutpoint



# Wisconsin Grade 4 Social Studies Advanced Cutpoint



## **Section U**

1. Grade 8 Social Studies Detailed Results
2. Grade 8 Social Studies Impact, Rounds 1, 2, and 3
3. Grade 8 Social Studies Graphical Representations of Participants' Judgments and Standard Errors

## Grade 8 Social Studies Detailed Results

**Wisconsin WKCE Grade 8 Social Studies  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	7	9
2	6	13	39
3	1	26	33
4	6	12	16
5	5	9	16
6	6	12	15
7	3	12	15
8	5	9	22
Median	5	12	16
Minimum	1	7	9
Maximum	6	26	39



**Wisconsin WKCE Grade 8 Social Studies  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	7	17	21
2	5	10	17
3	6	13	33
4	7	17	25
5	8	16	28
6	8	16	29
7	3	4	17
Median	7	16	25
Minimum	3	4	17
Maximum	8	17	33

**Wisconsin WKCE Grade 8 Social Studies  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	10	15
2	6	24	56
3	7	17	32
4	8	17	38
5	3	10	42
6	10	20	34
7	12	24	43
Median	7	17	38
Minimum	3	10	15
Maximum	12	24	56

**Wisconsin WKCE Grade 8 Social Studies Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	6	13	26.5
Minimum	1	4	9
Maximum	12	26	56
SD	2.45	5.70	11.95

**Wisconsin WKCE Grade 8 Social Studies  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	639	642	647
2	640	662	693
3	630	682	690
4	640	661	667
5	639	647	667
6	640	661	666
7	630	661	666
8	639	647	677
Median	639	661	667
Minimum	630	642	647
Maximum	640	682	693

**Wisconsin WKCE Grade 8 Social Studies  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	642	669	673
2	639	648	669
3	640	662	690
4	642	669	681
5	644	667	685
6	644	667	688
7	630	639	669
Median	642	667	681
Minimum	630	639	669
Maximum	644	669	690

**Wisconsin WKCE Grade 8 Social Studies  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	640	648	666
2	640	679	724
3	642	669	690
4	644	669	693
5	630	648	695
6	648	672	690
7	661	679	697
Median	642	669	693
Minimum	630	648	666
Maximum	661	679	724

**Wisconsin WKCE Grade 8 Social Studies Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	640	662	682
Minimum	630	639	647
Maximum	661	682	724
SD	6.94	12.51	16.28

## Wisconsin WKCE Grade 8 Social Studies Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	5	12	16
Group 2 Median	7	16	25
Group 3 Median	7	17	38
Large Group	6	13	26.5



**Wisconsin WKCE Grade 8 Social Studies  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	11	16
2	6	12	30
3	5	16	21
4	3	12	16
5	5	12	22
6	3	12	16
7	4	12	31
8	5	11	16
Median	4.5	12	18.5
Minimum	3	11	16
Maximum	6	16	31

**Wisconsin WKCE Grade 8 Social Studies  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	14	45
2	5	15	28
3	6	13	33
4	4	17	32
5	8	16	32
6	4	14	32
7	7	13	38
Median	6	14	32
Minimum	4	13	28
Maximum	8	17	45

**Wisconsin WKCE Grade 8 Social Studies  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	5	13	32
2	8	18	39
3	7	17	37
4	7	15	37
5	5	12	32
6	7	17	30
7	7	17	37
Median	7	17	37
Minimum	5	12	30
Maximum	8	18	39

**Wisconsin WKCE Grade 8 Social Studies Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	5	13.5	32
Minimum	3	11	16
Maximum	8	18	45
SD	1.59	2.26	8.39

**Wisconsin WKCE Grade 8 Social Studies  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	639	659	667
2	640	661	688
3	639	667	673
4	630	661	667
5	639	661	677
6	630	661	667
7	639	661	690
8	639	659	667
Median	639	661	669
Minimum	630	659	667
Maximum	640	667	690

**Wisconsin WKCE Grade 8 Social Studies  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	644	663	699
2	639	666	685
3	640	662	690
4	639	669	690
5	644	667	690
6	639	663	690
7	642	662	693
Median	640	663	690
Minimum	639	662	685
Maximum	644	669	699

**Wisconsin WKCE Grade 8 Social Studies  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	639	662	690
2	644	669	693
3	642	669	693
4	642	666	693
5	639	661	690
6	642	669	688
7	642	669	693
Median	642	669	693
Minimum	639	661	688
Maximum	644	669	693

**Wisconsin WKCE Grade 8 Social Studies Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	639	662	690
Minimum	630	659	667
Maximum	644	669	699
SD	3.85	3.45	10.15



## Wisconsin WKCE Grade 8 Social Studies Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	4.5	12	18.5
Group 2 Median	6	14	32
Group 3 Median	7	17	37
Large Group	5	13.5	32

**Wisconsin WKCE Grade 8 Social Studies  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	3	11	29
2	7	13	32
3	6	16	24
4	3	12	32
5	4	11	45
6	3	12	23
7	4	13	32
8	6	12	20
Median	4	12	30.5
Minimum	3	11	20
Maximum	7	16	45

**Wisconsin WKCE Grade 8 Social Studies  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	13	45
2	5	13	37
3	8	13	37
4	4	12	37
5	8	14	42
6	6	13	32
7	7	13	38
Median	7	13	37
Minimum	4	12	32
Maximum	8	14	45

**Wisconsin WKCE Grade 8 Social Studies  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	12	35
2	7	13	45
3	7	13	45
4	4	14	40
5	3	10	32
6	4	12	50
7	7	13	45
Median	4	13	45
Minimum	3	10	32
Maximum	7	14	50

**Wisconsin WKCE Grade 8 Social Studies Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	5.5	13	37
Minimum	3	10	20
Maximum	8	16	50
SD	1.81	1.22	8.04

**Wisconsin WKCE Grade 8 Social Studies  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	630	659	688
2	642	662	690
3	640	667	679
4	630	661	690
5	639	659	699
6	630	661	678
7	639	662	690
8	640	661	672
Median	639	661	688
Minimum	630	659	672
Maximum	642	667	699

**Wisconsin WKCE Grade 8 Social Studies  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	644	662	699
2	639	662	693
3	644	662	693
4	639	661	693
5	644	663	695
6	640	662	690
7	642	662	693
Median	642	662	693
Minimum	639	661	690
Maximum	644	663	699

**Wisconsin WKCE Grade 8 Social Studies  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	639	661	691
2	642	662	699
3	642	662	699
4	639	663	694
5	630	648	690
6	639	661	706
7	642	662	699
Median	639	662	699
Minimum	630	648	690
Maximum	642	663	706



**Wisconsin WKCE Grade 8 Social Studies Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	639	662	693
Minimum	630	648	672
Maximum	644	667	706
SD	4.86	3.35	7.62

## Wisconsin WKCE Grade 8 Social Studies Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	4	12	30.5
Group 2 Median	7	13	37
Group 3 Median	4	13	45
Large Group	5.5	13	37

## Grade 8 Social Studies Impact, Rounds 1, 2, and 3

Wisconsin Grade 8 Social Studies

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	3.77	11.37	25.88	58.98
Free & Reduced Lunch	10.18	24.08	32.91	32.83
Students of Color	12.82	27.53	32.64	27.02
Majority	1.68	7.63	24.31	66.38

Wisconsin Grade 8 Social Studies

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	3.77	11.37	40.45	44.41
Free & Reduced Lunch	10.18	24.08	45.08	20.66
Students of Color	12.82	27.53	42.99	16.67
Majority	1.68	7.63	39.86	50.83

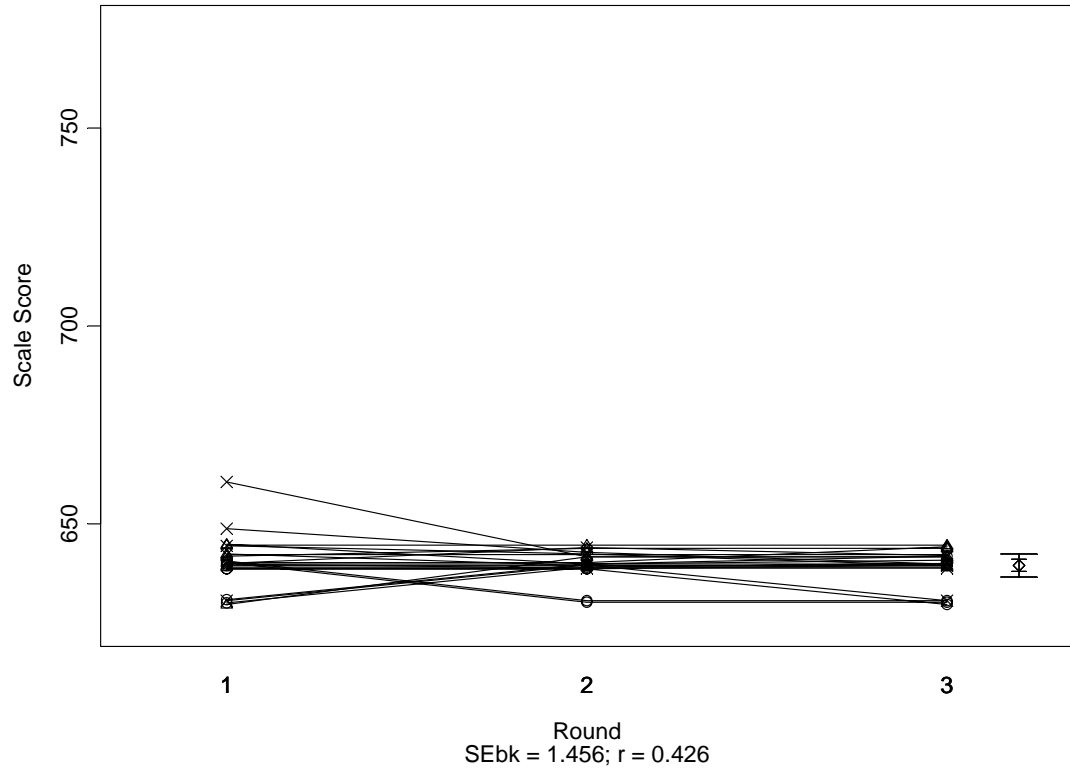
Wisconsin Grade 8 Social Studies

Large Group Round 3 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	3.77	11.37	48.44	36.42
Free & Reduced Lunch	10.18	24.08	50.28	15.45
Students of Color	12.82	27.53	47.07	12.58
Majority	1.68	7.63	48.76	41.94

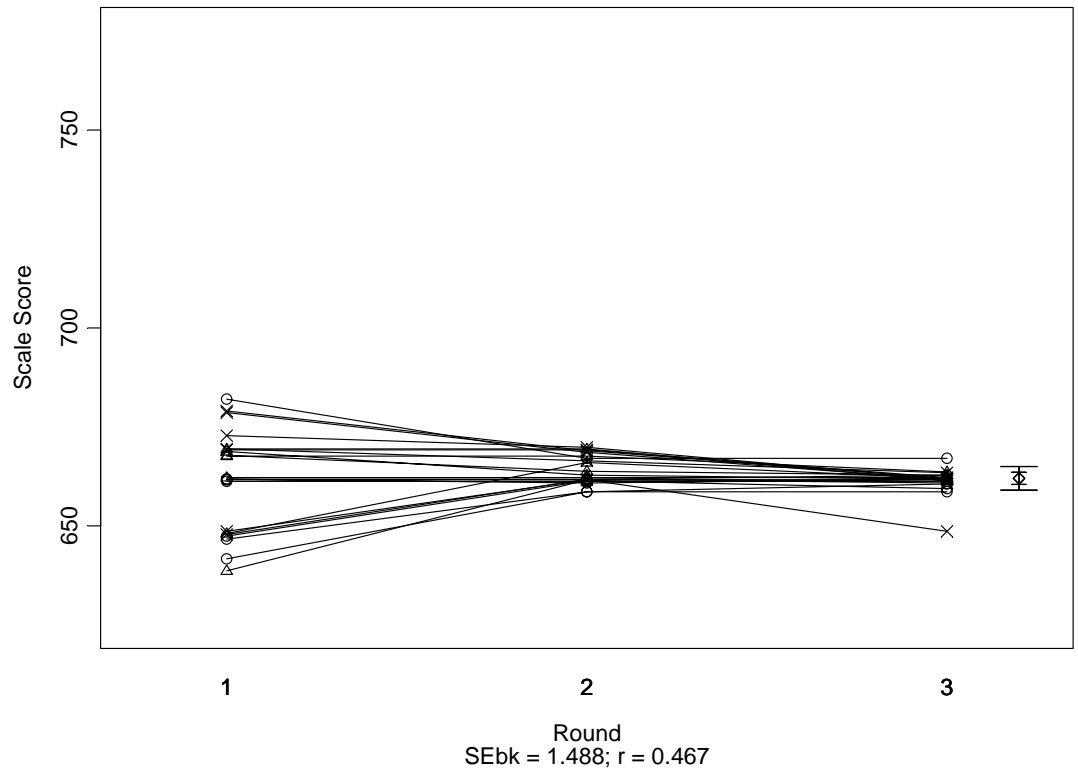
# Grade 8 Social Studies Graphical Representations of Participants' Judgments and Standard Errors

# Wisconsin Grade 8 Social Studies Basic Cutpoint

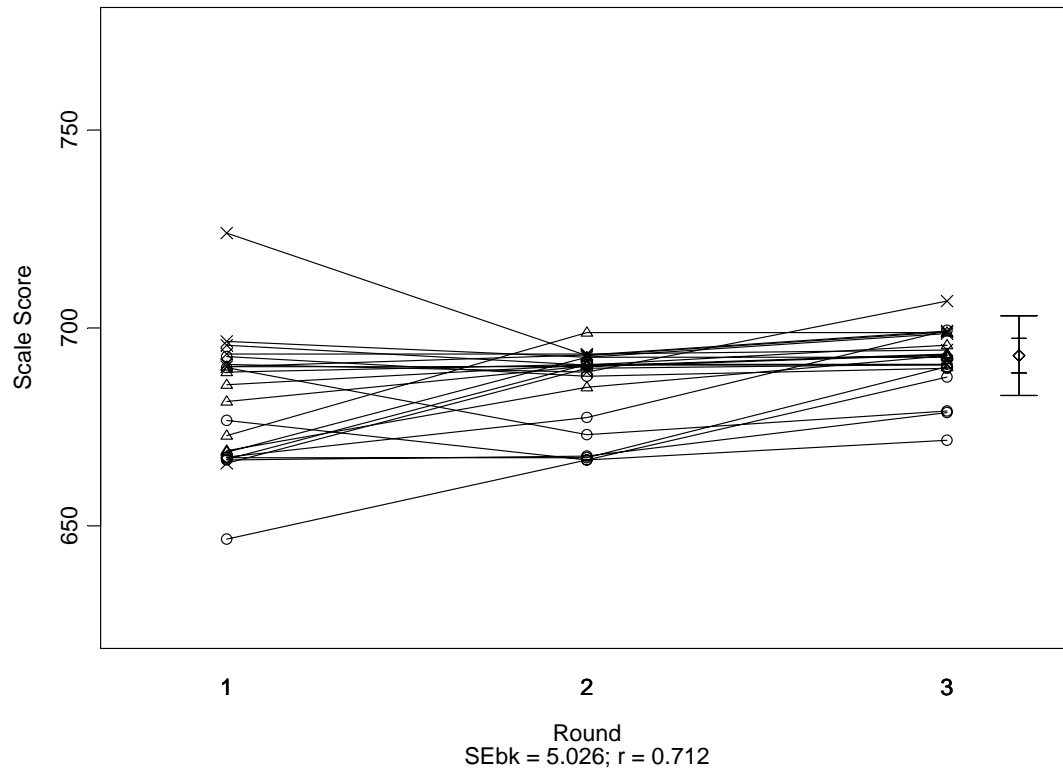




# Wisconsin Grade 8 Social Studies Proficient Cutpoint



# Wisconsin Grade 8 Social Studies Advanced Cutpoint



## **Section V**

1. Grade 10 Social Studies Detailed Results
2. Grade 10 Social Studies Impact, Rounds 1, 2, and 3
3. Grade 10 Social Studies Graphical Representations of Participants' Judgments and Standard Errors

# Grade 10 Social Studies Detailed Results

**Wisconsin WKCE Grade 10 Social Studies  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	24	39
2	6	24	35
3	13	23	41
4	22	45	59
5	14	30	49
6	10	24	50
Median	11.5	24	45
Minimum	6	23	35
Maximum	22	45	59

**Wisconsin WKCE Grade 10 Social Studies  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	9	35
2	2	3	33
3	8	13	36
4	7	24	48
5	3	11	24
6	9	19	46
7	9	17	42
Median	7	13	36
Minimum	2	3	24
Maximum	9	24	48

**Wisconsin WKCE Grade 10 Social Studies  
Group 3 Round 1 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	11	20
2	8	24	42
3	11	21	36
4	11	17	32
5	8	20	37
6	11	21	30
Median	9.5	20.5	34
Minimum	6	11	20
Maximum	11	24	42

**Wisconsin WKCE Grade 10 Social Studies Round 1 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	8	21	37
Minimum	2	3	20
Maximum	22	45	59
SD	4.47	8.99	9.36



**Wisconsin WKCE Grade 10 Social Studies  
Group 1 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	689	699	713
2	681	699	710
3	693	699	713
4	699	717	749
5	693	706	720
6	691	699	722
Median	692	699	717
Minimum	681	699	710
Maximum	699	717	749

**Wisconsin WKCE Grade 10 Social Studies  
Group 2 Round 1 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	679	690	710
2	645	666	707
3	689	693	710
4	688	699	719
5	666	692	699
6	690	695	718
7	690	694	714
Median	688	693	710
Minimum	645	666	699
Maximum	690	699	719

**Wisconsin WKCE Grade 10 Social Studies  
Group 3 Round 1 Results**

<b>Participant</b>	<i>Basic</i> <b>Cutscore</b>	<i>Proficient</i> <b>Cutscore</b>	<i>Advanced</i> <b>Cutscore</b>
1	681	692	695
2	689	699	714
3	692	698	710
4	692	694	706
5	689	695	711
6	692	698	706
Median	690	695	709
Minimum	681	692	695
Maximum	692	699	714

**Wisconsin WKCE Grade 10 Social Studies Round 1 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	689	698	711
Minimum	645	666	695
Maximum	699	717	749
SD	12.22	9.42	10.97

## Wisconsin WKCE Grade 10 Social Studies Round 1 Summary

	Basic	Proficient	Advanced
Group 1 Median	11.5	24	45
Group 2 Median	7	13	36
Group 3 Median	9.5	20.5	34
Large Group	8	21	37

**Wisconsin WKCE Grade 10 Social Studies  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	8	20	39
2	7	24	35
3	13	21	41
4	11	25	45
5	12	24	49
6	9	22	48
Median	10	23	43
Minimum	7	20	35
Maximum	13	25	49

**Wisconsin WKCE Grade 10 Social Studies  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	3	5	48
2	2	9	43
3	10	16	44
4	8	27	48
5	3	11	46
6	6	17	46
7	9	17	43
Median	6	16	46
Minimum	2	5	43
Maximum	10	27	48

**Wisconsin WKCE Grade 10 Social Studies  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	11	24
2	8	24	42
3	6	18	40
4	8	21	38
5	5	15	37
6	11	21	46
Median	7	19.5	39
Minimum	4	11	24
Maximum	11	24	46



**Wisconsin WKCE Grade 10 Social Studies Round 2 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	8	20	43
Minimum	2	5	24
Maximum	13	27	49
SD	3.17	5.99	6.00

**Wisconsin WKCE Grade 10 Social Studies  
Group 1 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	689	695	713
2	688	699	710
3	693	698	713
4	692	703	717
5	692	699	720
6	690	699	719
Median	691	699	714
Minimum	688	695	710
Maximum	693	703	720

**Wisconsin WKCE Grade 10 Social Studies  
Group 2 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	666	679	719
2	645	690	714
3	691	694	715
4	689	705	719
5	666	692	718
6	681	694	718
7	690	694	714
Median	681	694	718
Minimum	645	679	714
Maximum	691	705	719

**Wisconsin WKCE Grade 10 Social Studies  
Group 3 Round 2 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	679	692	699
2	689	699	714
3	681	695	713
4	689	698	713
5	679	693	711
6	692	698	718
Median	688	695	713
Minimum	679	692	699
Maximum	692	699	718

**Wisconsin WKCE Grade 10 Social Studies Round 2 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	689	695	714
Minimum	645	679	699
Maximum	693	705	720
SD	12.50	5.59	4.66

## Wisconsin WKCE Grade 10 Social Studies Round 2 Summary

	Basic	Proficient	Advanced
Group 1 Median	10	23	43
Group 2 Median	6	16	46
Group 3 Median	7	19.5	39
Large Group	8	20	43

**Wisconsin WKCE Grade 10 Social Studies  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	6	20	39
2	7	20	43
3	11	20	41
4			
5	10	20	49
6	9	20	48
Median	9	20	43
Minimum	6	20	39
Maximum	11	20	49

**Wisconsin WKCE Grade 10 Social Studies  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	9	48
2	2	5	43
3	11	18	44
4	11	27	48
5	3	11	46
6	6	17	46
7	8	13	43
Median	6	13	46
Minimum	2	5	43
Maximum	11	27	48



**Wisconsin WKCE Grade 10 Social Studies  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
1	4	11	25
2	8	20	42
3	6	16	40
4	8	21	42
5	11	24	42
6	11	24	46
Median	8	20.5	42
Minimum	4	11	25
Maximum	11	24	46

**Wisconsin WKCE Grade 10 Social Studies Round 3 Large  
Group Summary**

	<i>Basic</i> Bookmark on Page	<i>Proficient</i> Bookmark on Page	<i>Advanced</i> Bookmark on Page
Median	8	20	43
Minimum	2	5	25
Maximum	11	27	49
SD	2.99	5.74	5.40

**Wisconsin WKCE Grade 10 Social Studies  
Group 1 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	681	695	713
2	688	695	714
3	692	695	713
4			
5	691	695	720
6	690	695	719
Median	690	695	714
Minimum	681	695	713
Maximum	692	695	720

**Wisconsin WKCE Grade 10 Social Studies  
Group 2 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	679	690	719
2	645	679	714
3	692	695	715
4	692	705	719
5	666	692	718
6	681	694	718
7	689	693	714
Median	681	693	718
Minimum	645	679	714
Maximum	692	705	719

**Wisconsin WKCE Grade 10 Social Studies  
Group 3 Round 3 Results**

Participant	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
1	679	692	703
2	689	695	714
3	681	694	713
4	689	698	714
5	692	699	714
6	692	699	718
Median	689	695	714
Minimum	679	692	703
Maximum	692	699	718

**Wisconsin WKCE Grade 10 Social Studies Round 3 Large  
Group Summary**

	<i>Basic</i> Cutscore	<i>Proficient</i> Cutscore	<i>Advanced</i> Cutscore
Median	689	695	714
Minimum	645	679	703
Maximum	692	705	720
SD	12.01	5.15	3.79

## Wisconsin WKCE Grade 10 Social Studies Round 3 Summary

	Basic	Proficient	Advanced
Group 1 Median	9	20	43
Group 2 Median	6	13	46
Group 3 Median	8	20.5	42
Large Group	8	20	43

# Grade 10 Social Studies Impact, Rounds 1, 2, and 3



Wisconsin Grade 10 Social Studies

Large Group Round 1 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	18.42	9.43	21.11	51.04
Free & Reduced Lunch	37.68	13.71	20.52	28.09
Students of Color	42.48	13.61	19.06	24.85
Majority	14.14	8.69	21.48	55.69

Wisconsin Grade 10 Social Studies

Large Group Round 2 Impact Data

	Minimal Performance	Basic	Proficient	Advanced
All Students	18.42	6.77	28.18	46.62
Free & Reduced Lunch	37.68	10.06	27.60	24.67
Students of Color	42.48	10.06	25.71	21.75
Majority	14.14	6.19	28.62	51.04

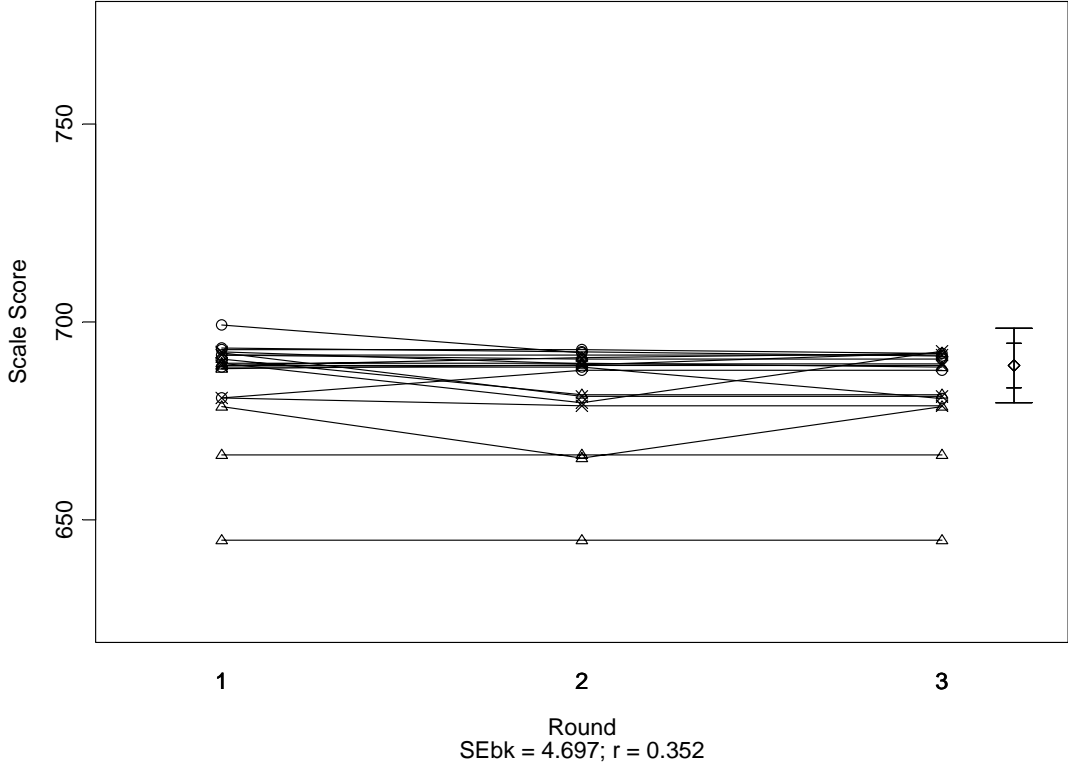
Wisconsin Grade 10 Social Studies

Large Group Round 3 Impact Data

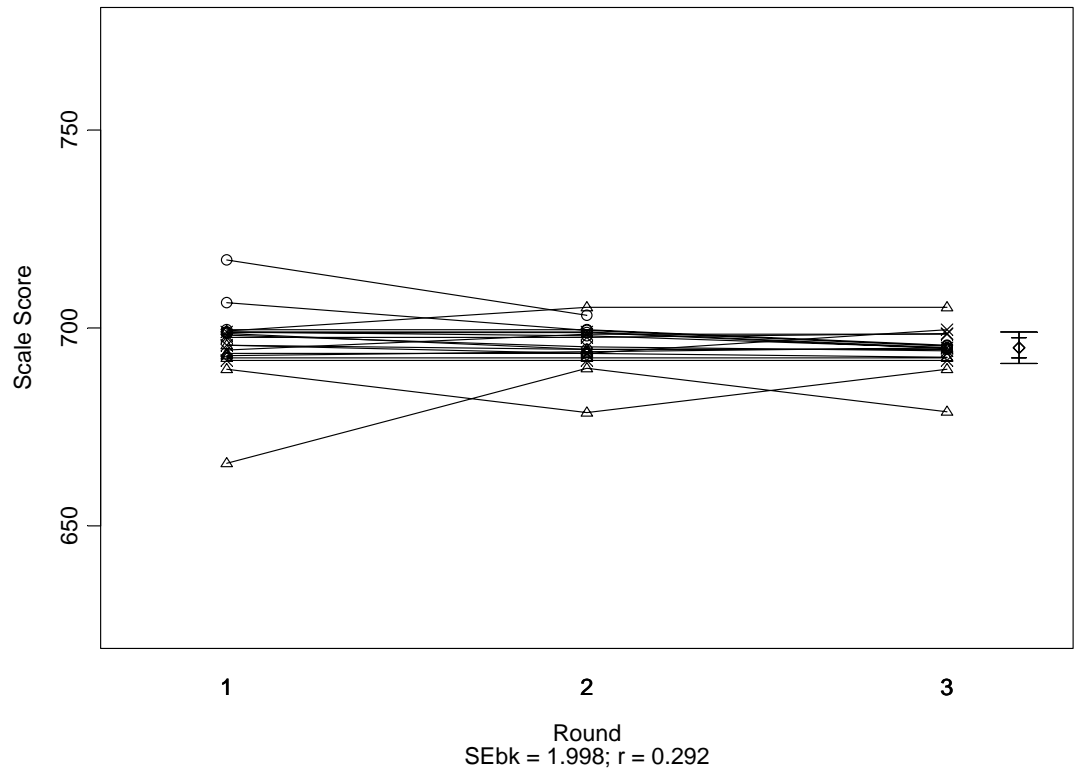
	Minimal Performance	Basic	Proficient	Advanced
All Students	18.42	6.77	28.18	46.62
Free & Reduced Lunch	37.68	10.06	27.60	24.67
Students of Color	42.48	10.06	25.71	21.75
Majority	14.14	6.19	28.62	51.04

# Grade 10 Social Studies Graphical Representations of Participants' Judgments and Standard Errors

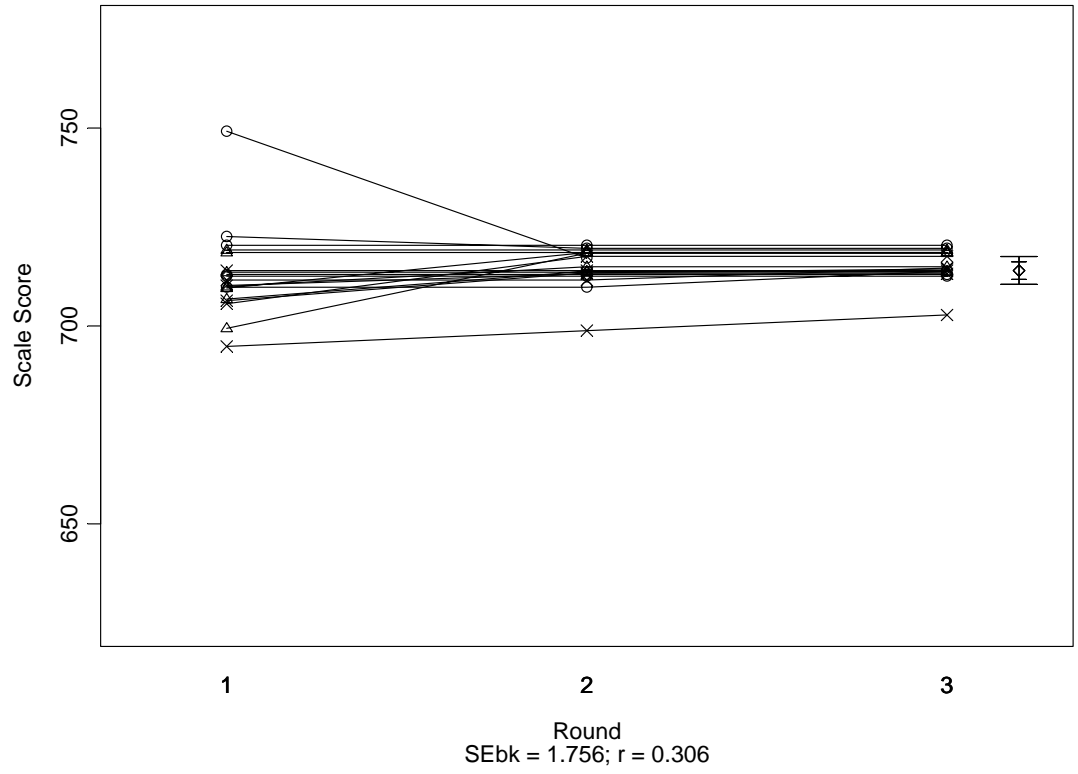
Wisconsin Grade 10 Social Studies Basic Cutpoint



# Wisconsin Grade 10 Social Studies Proficient Cutpoint



# Wisconsin Grade 10 Social Studies Advanced Cutpoint



**Section W**

Final Recommended Cut Scores and Associated Impact Data

Memorandum to Technical Advisory Committee



## Final Recommended Cut Scores and Associated Impact Data

**Table 1. Cut Scores and Associated Impact Data by Grade/Content Area**

**Final Recommended Cut Scores**

	Grade 4			Grade 8			Grade 10		
	Basic	Proficient	Advanced	Basic	Proficient	Advanced	Basic	Proficient	Advanced
Reading	585	616	653	633	654	698	676	694	711
Language	592	621	658	644	668	702	672	696	740
Mathematics	602	614	649	659	682	730	702	723	769
Science	579	614	663	660	682	717	697	710	740
Social Studies	592	611	639	639	662	693	689	695	714

**Impact Data Based on Final Recommended Cut Scores**

	Grade 4			Grade 8			Grade 10					
	Minimal Performance	Basic	Proficient	Advanced	Minimal Performance	Basic	Proficient	Advanced	Minimal Performance	Basic	Proficient	Advanced
Reading	4.36	12.52	43.87	39.26	7.25	8.54	42.47	41.74	11.48	11.22	19.33	57.98
Language	5.41	14.72	46.32	33.55	13.57	22.59	44.05	19.79	8.58	20.07	51.91	19.45
Mathematics	15.45	11.28	41.46	31.81	12.82	12.08	48.86	26.24	14.67	11.21	49.12	25.01
Science	4.52	16.52	59.71	19.24	9.52	15.19	49.90	25.38	16.99	9.08	36.08	37.85
Social Studies	2.15	5.90	30.48	61.47	3.77	11.37	48.44	36.42	18.42	6.77	28.18	46.62

## Memorandum to Technical Advisory Committee

Memorandum to Wisconsin Technical Advisory Committee

Content Area: Reading

Grade 8/10

Observations:

Teachers understand standards and teach to them'  
More students should move from proficient to advanced (so the #s do make sense to us)  
Students should be on grade (reading ability)  
Maturity level of students (aging hormone theory) is significant  
We should be concerned about SES - students of color falling into min/basic in such ↑ #s

Hypothesis:

There is a strong correlation between reading level & interest level and the # of students in proficient/advanced. Despite a lack of interesting materials, the strong readers will score high, but the lack of interest will certainly be significant in the minimal/basic level.  
Prof readers at 8th graders will likely be advanced by 10<sup>th</sup>; mastered at a greater rate

Message to TAC:

Our scores are truly context based so it would be difficult for this group to see arbitrary changes made to meet someone else's idea about how #s should fall.  
Representation was deliberate, important and appreciated.

6-1

Memorandum to Wisconsin Technical Advisory Committee

Content Area: Reading

Grade 8/10

Observations:

Sts of color

The "language" of home is not the language of school (the test)  
Audience/purpose on test vs. expectations situations at home (Sts of color)  
These #s are disturbing but likely reflect reality  
This is a brain stress test - which is scary!  
What are we doing to help students be successful if they are currently min/basic?

Hypothesis:

Message to TAC:

6-2

Memorandum to Wisconsin Technical Advisory Committee

Content Area: Language

Grade 8/10

Observations:

Scores are very close!!  
There will be far greater impact when  
it comes to language vs. Reading scores.  
Home language issue is very evident in  
these scores  
The subjective nature of writing scoring  
is still evident/important.  
We teach process writing as classroom  
teachers but expect to score through draft  
in the test

Hypothesis:

data indicates there is greater need for  
writing across the curriculum  
These are skills our students must have  
we have high standards/expectations we  
can depend the high number of basic/min. sts.  
Home language is clearly reflected in  
scores and we need to deal with fixing these  
problems! Oral tradition of cultures vs.  
the standard English expectations evident in  
language more so than the reading scores

Message to TAC:

Test questions/structure didn't closely match how  
we teach.  
The ordered items didn't always seem logically  
placed in our minds... Has it question  
construction? Lack of knowledge?

6-3

Memorandum to Wisconsin Technical Advisory Committee

Content Area: Language

Grade 8/10

Observations:

More writing across curriculum needed.  
Classroom prep doesn't seem reflective of  
work place expectations.

Hypothesis:

The written language is more advanced than  
the oral lang. Writing is inherently more  
difficult so scores will be low.

Message to TAC:

There is concern about the dated material of some  
test questions (ie Elmer Fudd). Are questions  
written in tune with these kids?

6-4

Memorandum to Wisconsin Technical Advisory Committee

Content Area: Mathematics

Grade \_\_\_\_\_

Observations:

- 75% of Proficient + Advanced at 4, 8 + 10 grades cut scores that we are recommending reflects ~~the~~ what we believe is happening in our classrooms + supported by NAEP + ACT + S + <sup>Future Now</sup>
- These cut scores help emphasize the clear message of the job we have ahead of us to improve the Proficient + Advanced percentages of Students of Color + First/Reduced/Low Income Students.
- We focused on our target student knowledge and skills at the beginning of 4th, 8th + 10th.

Hypothesis:

Consider for change - Wording to gain high interest and remove vocabulary + reading as a deterrent for students to demonstrate the math they know and are able to do.

Message to TAC:

We are very pleased with the conformity + smoothness of our cut scores across 4th, 8th + 10th grade.



Created by 4<sup>th</sup> Gr. Hath - Table 3  
with large group consensus -

Because the WKCE is administered in the beginning of the 4<sup>th</sup> grade year, the areas of communication, algebraic reasoning, measurement & mathematic processes fall on the advanced range of the ~~strong~~ process. (WKCE)

Thus, it is critical for teachers & administrators to understand students need to learn the early concepts pertaining to these areas in order to have an equitable chance to advance mathematically.



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# Memorandum to Wisconsin Technical Advisory Committee

Content Area: Science

~~Math~~

## Observations:

- 1) Large disparity in minimal score between high school and the mid & elem. schools.
- 2) If we add prof. & adv. scores for all 3 grades they are consistent based on the impact data.
- 3) minimal & adv. both increased from 4 to 10. Basic & prof. decreased from 4 to 10.

## Hypothesis:

- 1) Expectations of cutting standards from grade 10 to grade 10 was very difficult.
  - Tracking in high school is critical to # of students at minimal & advanced level from 4 to 8 and 8 to 10.
  - Remediation may not be given in lower grades to help students catch up so they continue to go down.
- 2) Students with ability stay there or move higher. Students what we are doing for prof & adv. seems to be working. Not working for minimal & basic. Student perception of the importance of test may change as grade increases. Teacher/parental expectations are different grade levels and schools. (over)

## Message to TAC:

We would really like to see you take a look at the difference between proficient & advanced and also between minimal at each grade level.

\* Specifically the trend at 10th grade to increase in advanced & minimal divergence levels.

(continued)

- 2) • Readability level for the test goes up from grade 4 to 8.
- Training of proctors & emphasis placed on test by diff. schools - <sup>at high school, proctors are to</sup> specifically (difficulty) <sup>doing what they are supposed to</sup>
- 3) • Reading level of test increases from 4<sup>th</sup> to 8<sup>th</sup> grade.
- ~~Why~~ not give test in grades 5, 9, & 11 or write standards to meet the timing of the test.