

Board of Education Agenda Item

Item: B.

Date: March 24, 2011

Topic: Final Review of a Recommendation of the Advisory Board on Teacher Education and Licensure (ABTEL) to Approve a Cut Score and Implementation Dates for the Praxis Braille Proficiency Test

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Origin:

Topic presented for information only (no board action required)

Board review required by
 State or federal law or regulation
 Board of Education regulation
 Other: _____

Action requested at this meeting Action requested at future meeting: _____

Previous Review/Action:

No previous board review/action

Previous review/action
date: October 22, 2009
action: First Review of the Advisory Board on Teacher Education and Licensure's Recommendation Regarding the Certification of Braille Instructors in Response to the Virginia General Assembly House Bill 2224

date: November 17, 2009
action: Final Review of the Advisory Board on Teacher Education and Licensure's Recommendation Regarding the Certification of Braille Instructors in Response to the Virginia General Assembly House Bill 2224

date: June 24, 2010
action: First Review of a Recommendation of the Advisory Board on Teacher Education and Licensure (ABTEL) to Approve a Braille Assessment for Teachers Seeking an Initial License with an Endorsement in Special Education-Visual Impairments

date: July 22, 2010
action: Final Review of a Recommendation of the Advisory Board on Teacher Education and Licensure (ABTEL) to Approve a Braille Assessment for Teachers Seeking an Initial License with an Endorsement in Special Education-Visual Impairments

Previous review/action (continued)

date: February 17, 2011

action: First Review of a Recommendation of the Advisory Board on Teacher Education and Licensure (ABTEL) to Approve a Cut Score and Implementation Dates for the Praxis Braille Proficiency Test

Background Information:

The 2009 Virginia General Assembly enacted the following House Bill 2224, Chapter 202, regarding Braille certification:

§ 1. That by December 31, 2009, the Advisory Board on Teacher Education and Licensure, in consultation with the Department for the Blind and Vision Impaired, shall make recommendations to the Board of Education and the Chairmen of the House Committee on Education and the Senate Committee on Education and Health regarding the certification of Braille instructors.

In consultation with the Department for the Blind and Vision Impaired, the Advisory Board on Teacher Education and Licensure (ABTEL) began discussions regarding Braille instruction, certification, and licensure. On April 20, 2009, the Advisory Board approved a committee to research the policy issues and make recommendations to the full Advisory Board.

ABTEL's committee on Braille convened July 8 and August 5, 2009. At the meeting on August 5, 2009, Dr. Edward C. Bell, director of the Professional Development and Research Institute on Blindness, Louisiana Technology University, and Mr. Michael Kasey, National Federation of the Blind, met with the committee.

The Advisory Board on Teacher Education and Licensure met on September 20-21, 2009, to review the committee's report and make a recommendation to the Board of Education. The Advisory Board received the report of the committee including research on Braille instruction, authority regarding Braille instruction, licensure assessments, the current teacher work force with endorsements in Special Education-Visual Impairments, Virginia's consortium to prepare teachers of visual impairments, requirements of other states, and available Braille assessments.

On September 20-21, 2009, the Advisory Board on Teacher Education and Licensure approved the following recommendation to the Board of Education:

The Advisory Board unanimously recommends to the Board of Education that a reliable, valid, and legally defensible assessment available statewide (to be determined) demonstrating Braille proficiency prescribed by the Virginia Board of Education be required for individuals seeking an initial license with an endorsement in Special Education-Visual Impairments. [The Department of Education shall follow policies and procedures relative to the procurement of such an assessment.] Additionally, contingent upon available funding, opportunities for licensed teachers with the endorsement in Special Education-Visual Impairments will be afforded additional professional development in the teaching of Braille through the Virginia Department of Education and the Department for the Blind and Vision Impaired. The Advisory Board supports the Virginia Board of Education's efforts to include teachers of visual impairments in the *Standards of Quality* funding formula.

The Board of Education approved the Advisory Board on Teacher Education and Licensure's recommendation on Braille certification in response to the 2009 Virginia General Assembly House Bill 2224 on November 17, 2009.

At the request of the Advisory Board on Teacher Education and Licensure, a committee was convened on March 29, 2010, to recommend a Braille assessment to be considered as a requirement for individuals seeking an initial license with an endorsement in Special Education-Visual Impairments. After reviewing available assessments, the committee unanimously recommended the Braille Proficiency Test owned by the Texas Education Agency and administered by the Educational Testing Service (ETS). The Braille-only test was developed by the Educational Testing Service for Texas. The state of Mississippi also has adopted this test.

On April 19, 2010, the Advisory Board on Teacher Education and Licensure voted unanimously to recommend that the Virginia Board of Education approve the Braille Proficiency Test administered by the Educational Testing Service as the required assessment for individuals seeking an initial Virginia license with an endorsement in Special Education-Visual Impairments. The committee's rationale included the following: (1) the Braille Proficiency Test developed by the Educational Testing Service is a reliable, valid, and legally defensible assessment; (2) the test appears to cover the appropriate knowledge and skills for Braille; (3) the test would be available after a state-specific standard setting study; and (4) the test is accessible across the state.

On July 22, 2010, the Board of Education approved ABTEL's recommendation that the Braille Proficiency Test administered by the Educational Testing Service be the required assessment for individuals seeking an initial Virginia license with an endorsement in Special Education-Visual Impairments. The Board also authorized Department of Education staff to begin the standard-setting process for the test.

Summary of Major Elements:

To support the decision-making process for the Virginia Department of Education (VDOE) with regards to establishing a passing score, or cut score, for the Praxis Braille Proficiency Test (0631), research staff from the Educational Testing Service (ETS) designed and conducted a standard setting study. The study also collected content-related validity evidence to confirm the importance of the content specifications for entry-level teachers of students with visual impairments. The standard setting study involved an expert panel comprised of teachers and college faculty. The VDOE recommended panelists with (a) experience with teaching students with visual impairments, either as teachers or college faculty who prepare teachers, (b) proficiency with reading and producing Braille, and (c) familiarity with the skills required of beginning teachers of students with visual impairments.

The panel was convened on October 28, 2010, in Richmond, Virginia. The attached technical report (Appendix) describes the content and format of the assessment, the standard setting processes and methods used, and the results of the standard setting study.

The Praxis Braille Proficiency *Test at a Glance* document (ETS, 2010) describes the purpose and structure of the assessment. The assessment measures whether entry-level teachers of students with visual impairments have the level of Braille proficiency believed necessary for competent professional practice. The four-hour assessment contains 25 multiple-choice questions and four constructed-response questions and covers reading and producing contracted and uncontracted literary Braille and Nemeth Code. The maximum total number of raw-score points that may be earned is 36. The reporting scale for the Praxis Braille Proficiency Test (0631) ranges from 100 to 200 scaled-score points.

For the Praxis Braille Proficiency Test (0631), the panel’s cut score recommendation is 24.70. The value was rounded to the next highest whole number to determine the functional recommended cut score, 25. The value of 25 represents approximately 69 percent of the total available 36 raw-score points that could be earned on the assessment. The scaled score associated with 25 raw points is 168.

Texas commissioned the development of this assessment. Texas based their passing score on 25 raw points out of a possible 36 points. On the Praxis scale, this would correspond to a scaled score of 168. The only other state using the assessment, Mississippi, has a scaled cut score of 158.

Table 1

Cut Scores within 1 and 2 SEMs of the Recommended Cut Score – Virginia – Braille

Recommended Cut Score (SEM)		Scaled Score Equivalent
	25 (2.49)	168
-2 SEMs	21	155
-1 SEM	23	162
+1 SEM	28	179
+2 SEMs	30	186

Note: Consistent with the recommended cut score, the cut scores at the different SEMs have been rounded to the next highest whole number.

On January 24, 2011, the Advisory Board for Teacher Education and Licensure (ABTEL) recommended that the Board of Education set a passing score of 168 for the Praxis Braille Proficiency Test (0631) for individuals seeking an initial license with an endorsement in Special Education-Visual Impairments. ABTEL also recommended that the implementation date for the assessment be July 1, 2011, except for individuals completing the approved Virginia Visual Impairments Consortium program who must meet the assessment requirement beginning July 1, 2012.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education approve the Advisory Board on Teacher Education and Licensure’s recommendations to (1) set a passing score of 168 for the Praxis Braille Proficiency Test for individuals seeking an initial Virginia license with an endorsement in Special Education-Visual Impairments and (2) establish the implementation date for the assessment as July 1, 2011, except for individuals completing the approved Virginia Visual Impairments Consortium program who must meet the assessment requirement effective July 1, 2012.

Impact on Resources:

Costs associated with the administration of the Praxis Braille Proficiency Test (0631) will be incurred by the Educational Testing Service. Prospective teachers seeking an initial Virginia license with an endorsement in Special Education-Visual Impairments will be required to pay the registration and test fees.

Timetable for Further Review/Action:

N/A

APPENDIX

Standard Setting Report
PRAXIS BRAILLE PROFICIENCY (0631)



Listening. Learning. Leading.

Standard Setting Report

PRAXIS BRAILLE PROFICIENCY (0631)

Prepared for the Virginia Department of Education

November 2010

Conducted by
Educational Testing Service
Princeton, New Jersey

Executive Summary

To support the decision-making process for the Virginia Department of Education (VDOE) with regards to establishing a passing score, or cut score, for the Praxis Braille Proficiency (0631) assessment, research staff from Educational Testing Service (ETS) designed and conducted a standard setting study on October 28, 2010. The study also collected content-related validity evidence to confirm the importance of the content specifications for entry-level teachers of students with visual impairments.

Recommended Cut Score

The standard setting study involved an expert panel, comprised of teachers and college faculty. The recommended cut score is provided to help the VDOE determine an appropriate cut (or passing) score. For the Praxis Braille Proficiency (0631) assessment, the recommended cut score (rounded up) is 25 (on the raw score metric), which represents 69% of total available 36 raw score points. The scaled score associated with a raw score of 25 is 168.

Summary of Content Specification Judgments

Panelists judged the extent to which the skills reflected by the content specifications were important for entry-level teachers of students with visual impairments. The favorable judgment of the panelists provided evidence that the content of the assessment is important for beginning practice.

Introduction

To support the decision-making process for the Virginia Department of Education (VDOE) with regards to establishing a passing score, or cut score, for the Praxis Braille Proficiency (0631) assessment, research staff from Educational Testing Service (ETS) designed and conducted a standard setting study on October 28, 2010, in Richmond, Virginia. The study also collected content-related validity evidence to confirm the importance of the content specifications for entry-level teachers of students with visual impairments. The standard setting study involved an expert panel comprised of teachers and college faculty. The VDOE recommended panelists with (a) experience with teaching students with visual impairments, either as teachers or college faculty who prepare teachers, (b) proficiency with reading and producing Braille, and (c) familiarity with the skills required of beginning teachers of students with visual impairments.

The passing score recommendation for the *Praxis Braille Proficiency* (0631) is provided to the VDOE. The VDOE is responsible for establishing the final passing score in accordance with applicable state regulations. The study provides a recommended passing score, which represents the combined judgments of one group of experienced educators. The full range of the VDOE's needs and expectations could not be represented during the standard setting study. The VDOE, therefore, may want to consider both the panel's recommended cut score and other sources to information when setting the final *Praxis Braille Proficiency* (0631) cut score (Geisinger & McCormick, 2010). Other kinds of information may provide reasons for the VDOE to adjust the recommended cut score. The recommended cut score may be accepted, adjusted upward to reflect more stringent expectations, or adjusted downward to reflect more lenient expectations. There is no *correct* decision; the appropriateness of any adjustment may only be evaluated in terms of its meeting the VDOE's needs.

Two critical sources of information to consider when setting the cut score are the standard error of measurement (SEM) and the standard error of judgment (SEJ). The former addresses the reliability of *Praxis Braille Proficiency* (0631) scores and the latter the reliability of panelists' cut score recommendations. The SEM allows VDOE to recognize that a *Praxis Braille Proficiency* (0631) score—any test score on any test—is less than perfectly reliable. A test score only approximates what a candidate *truly* knows or *truly* can do on the test. The SEM, therefore, addresses the question: “How close of an approximation is the test score to the *true* score?” The SEJ allows the VDOE to consider the

likelihood that the recommended cut score from the current panel would be similar to cut scores recommended by other panels of experts similar in composition and experience. The smaller the SEJ, the more likely that another panel would recommend a cut score consistent with the recommended cut score. The larger the SEJ, the less likely the recommended cut score would be reproduced by another panel.

In addition to measurement error metrics (e.g., SEM, SEJ), the VDOE should consider the likelihood of classification error. That is, when adjusting a cut score, policymakers should consider whether it is more important to minimize a false positive decision or to minimize a false negative decision. A false positive decision occurs when a candidate's test score suggests he should receive a license/certificate, but his actual knowledge/skill level is lower (i.e., the candidate does not possess the required knowledge/skills). A false negative occurs when a candidate's test score suggests that she should not receive a license/certificate, but she actually does possess the required knowledge/skills. The VDOE needs to consider which decision error to minimize; it is not possible to eliminate both types of decision errors simultaneously.

Praxis Braille Proficiency Assessment

The Praxis Braille Proficiency *Test at a Glance* document (ETS, 2010) describes the purpose and structure of the assessment. In brief, the assessment measures whether entry-level teachers of students with visual impairments have the level of braille proficiency believed necessary for competent professional practice.

The four hour assessment contains 25 multiple-choice questions¹ and four constructed-response questions and covers reading and producing contracted and uncontracted literary braille and Nemeth Code. The maximum total number of raw-score points that may be earned is 36. The reporting scale for the Praxis Braille Proficiency (0631) assessment ranges from 100 to 200 scaled-score points.

¹ Five multiple-choice questions are pretest questions and do not contribute to a candidate's score.

Expert Panels

The standard setting study for the Praxis Braille Proficiency (0621) assessment included an expert panel recruited by the VDOE. The VDOE recruited panelists to represent a range of professional perspectives. A description of the panel is presented below. (See the Appendix for a listing of panelists.)

The panel included 14 teachers of students with visual impairments. Thirteen panelists were White and one was African American. Thirteen panelists were female. All the panelists reported being certified teachers of students with visual impairments in Virginia. Nearly 80% of the panelists had 16 or more years of experience teaching Braille.

A fuller demographic description for the members of the panel is presented in Table 1.

Table 1
Committee Member Demographics

	N	Percent
Group you are representing		
Teachers	14	100%
Race		
White	13	93%
Black or African American	1	7%
Gender		
Female	13	93%
Male	1	7%
Do you currently have a Special Education – Visual Impairments endorsement in Virginia?		
No	0	0%
Yes	14	100%
Are you currently teaching braille?		
No	0	0%
Yes	14	100%
Are you currently supervising or mentoring teachers of visually impaired students?		
No	9	64%
Yes	5	36%

Table 1 (continued)
Committee Member Demographics

	N	Percent
Including this year, how many years of experience do you have teaching braille?		
3 years or less	0	0%
4 – 7 years	1	7%
8 – 11 years	1	7%
12 – 15 years	1	7%
16 years or more	11	79%
At what K-12 grade level are you currently teaching?		
Elementary (K-5 or K-6)	5	36%
Middle School (6-8 or 7-9)	1	7%
High School (9-12 or 10-12)	4	29%
Middle and High School	2	14%
All Grades	1	7%
I am not currently teaching at the K-12 level	1	7%
School Setting		
Urban	3	21%
Suburban	9	64%
Rural	2	14%

Process and Method

The design of the Praxis Braille Proficiency (0631) assessment standard setting study for the VDOE included an expert panel. The panelists were sent an e-mail explaining the purpose of the standard-setting study and requesting that they review the content specifications for the Praxis Braille Proficiency (0631) assessment (included in the Praxis Braille Proficiency *Test at a Glance*, which was attached to the e-mail). The purpose of the review was to familiarize the panelists with the general structure and content of the assessment.

The standard-setting study began with a welcome and introduction. Dr. James Lanham, Director of Licensure, welcomed the panelists and provided an overview of the certification process in Virginia. Dr. Clyde Reese, the ETS facilitator, then provided an overview of standard setting, and presented the agenda for the study. (The agenda for the meeting is in the Appendix.)

Reviewing the Praxis Braille Proficiency Assessment

The first activity was for the panelists to “take the test.” (Each panelist had signed a nondisclosure form.) The panelists were given approximately an hour and a half to respond to the multiple-choice questions and to take notes on the constructed-response (transcription) questions. The purpose of “taking the test” was for the panelists to become familiar with the test format, content, and difficulty. After “taking the test,” the panelists were given the answer key (correct answers for the multiple-choice questions) to self-score and the rubrics for the constructed-response questions; how well a panelist did on the test was not shared.

The panelists then engaged in a discussion of the major content areas being addressed by the assessment; they were also asked to remark on any content areas that they thought would be particularly challenging for entering teachers of students with visual impairments, and areas that addressed content that would be particularly important for entering teachers.

Describing the Just Qualified Candidate

Following the review of the assessment, panelists described the Just Qualified Candidate (JQC). The JQC is the test taker who has the minimum level of knowledge and/or skills believed necessary to be a qualified teacher of students with visual impairments. The JQC description is the operational definition of the cut score. The goal of the standard-setting process is to identify the test score that aligns with this description of the JQC.

For each of the competency areas measured by the Praxis Braille Proficiency (0631) assessment, the panel was asked to provide performance indicators, or “can do” statements that answered the following two questions:

- What can our JQC do to demonstrate the necessary level of competency that a not-quite qualified candidate could not?
- What would be something that might represent a slightly higher level of competency than we would expect from our JQC?

The six competency areas are listed in the Appendix.

Panelists' Judgments

The standard-setting process for the Praxis Braille Proficiency (0631) assessment is described next, followed by the results from the standard-setting study. The recommended cut score for the panel is provided to help the VDOE determine an appropriate cut (or passing) score.

Standard Setting for Multiple-Choice Questions. For the multiple-choice questions included on the Praxis Braille Proficiency (0631) assessment, a probability-based Angoff method (Brandon, 2004; Hambleton & Pitoniak, 2006) was used. In this approach, for each multiple-choice question, a panelist decides on the likelihood (probability or chance) that a JQC would answer it correctly. Panelists made their judgments using the following rating scale: 0, .05, .10, .20, .30, .40, .50, .60, .70, .80, .90, .95, 1. The lower the value, the less likely it is that a JQC would answer the question correctly, because the question is difficult for the JQC. The higher the value, the more likely it is that a JQC would answer the question correctly.

The panelists were asked to approach the judgment process in two stages. First, they reviewed the definition of the JQC and the question and decided if, overall, the question was difficult for the JQC, easy for the JQC, or moderately difficult/easy. The facilitator encouraged the panelists to consider the following rule of thumb to guide their decision:

- difficult questions for a JQC were in the 0 to .30 range;
- moderately difficult/easy questions for a JQC were in the .40 to .60 range; and
- easy questions for a JQC were in the .70 to 1 range.

The second decision was for panelists to decide how they wanted to refine their judgment within the range. For example, if a panelist thought that a question was easy for a JQC, the initial decision located the question in the .70 to 1 range. The second decision was for the panelist to decide if the likelihood of answering it correctly was .70, .80, .90, .95, or 1. The two-stage decision-process was implemented to reduce the cognitive load placed on the panelists. The panelists practiced making their standard-setting judgments for multiple-choice questions.

Standard Setting for Constructed-Response Questions. For the constructed-response questions included on the Praxis Braille Proficiency assessment, an Extended Angoff method (Cizek & Bunch, 2007; Hambleton & Plake, 1995) was used. In this approach, for each question, a panelist decides on the assigned score value that would most likely be earned by a JQC. The basic process that each panelist

followed was to consider the expected proficiency level of the JQC and then to review the question and the rubric for that question. The rubric for a question is based on the number of transcription errors in a candidate's response; the possible scores for each question are 1, 2, 3 and 4. A test taker's response to a constructed-response question is scored by a trained scorer and verified by the chief reader. Each panelist decided on the score most likely to be earned by a JQC. For each of the four constructed-response questions, panelists recorded the score (0 through 4) that a JQC would most likely earn. The panelists practiced making their standard-setting judgments for constructed-response questions.

Judgment of Praxis Braille Proficiency Content Specifications

In addition to the standard setting process, the panel judged the importance of the skills stated or implied in the assessment content specifications for the job of an entry-level teacher of students with visual impairments. These judgments addressed the perceived content-based validity of the assessment. Judgments were made using a four-point Likert scale — *Very Important*, *Important*, *Slightly Important*, and *Not Important*. Each panelist independently judged the six competency areas.

Results

Initial Evaluation Forms

The panelists completed initial evaluations following training for multiple-choice questions and again following training for constructed-response questions. The primary information collected from these forms was the panelists indicating if they had received adequate training to make their standard-setting judgments and were ready to proceed. All panelists indicated that they were prepared to make their judgments.

Summary of Standard Setting Judgments

A summary of the standard-setting judgments is presented in Table 2. The numbers in the table reflect the recommended cut scores — the number of raw-score points needed to “pass” the assessment — of each panelist. For the Praxis Braille Proficiency (0631) assessment, results for the multiple-choice questions, constructed-response questions and the overall assessment are presented. Note that the Praxis

Braille Proficiency (0631) assessment reports a single overall score and that the panel is recommending a single cut score for the combination of the multiple-choice and constructed response questions. The separate “cut scores” for the two parts are intermediate steps in calculating the overall cut score.

The panel’s average recommended cut score and highest and lowest cut scores are reported, as are the standard deviation (SD) of panelists’ cut scores and the standard error of judgment (SEJ). The SEJ is one way of estimating the reliability of the judgments. It indicates how likely it would be for other panels of educators similar in make-up, experience, and standard-setting training to the current panel to recommend the same cut score on the same form of the assessment. A comparable panel’s cut score would be within 1 SEJ of the current average cut score 68 percent of the time and within 2 SEJs 95 percent of the time.

For the Praxis Braille Proficiency (0631) assessment, the panel’s cut score recommendation is 24.70. The value was rounded to the next highest whole number to determine the functional recommended cut score, 25. The value of 25 represents approximately 69% of the total available 36 raw-score points that could be earned on the assessment. The scaled score associated with 25 raw points is 168.

Table 2**Cut Score Summary of Judgments**

Panelist	Multiple-Choice Judgments	Constructed-Response Judgments	Overall Cutscore
1	10.90	11	21.90
2	11.80	11	22.80
3	12.70	14	26.70
4	12.60	10	22.60
5	16.30	14	30.30
6	15.55	13	28.55
7	10.80	13	23.80
8	13.70	11	24.70
9	11.60	11	22.60
10	13.90	13	26.90
11	12.05	14	26.05
12	12.60	11	23.60
13	13.45	11	24.45
14	10.80	10	20.80
Average	12.77	11.93	24.70
Highest	16.30	14	30.30
Lowest	10.80	10	20.80
SD	1.69	1.49	2.69
SEJ	0.45	0.40	0.72

Table 3 presents the estimated standard errors of measurement (SEM) around the recommended cut score. A standard error represents the uncertainty associated with a test score. The scaled scores associated with 1 and 2 SEMs above and below the recommended cut score are provided².

Table 3

Cut Scores within 1 and 2 SEMs of the Recommended Cut Score

Recommended Cut Score (SEM)		Scaled Score Equivalent
25 (2.49)		168
- 2 SEMs	21	155
-1 SEM	23	162
+1 SEM	28	179
+ 2 SEMs	30	186

Note: Consistent with the recommended cut score, the cut scores at the different SEMs have been rounded to the next highest whole number.

Summary of Content Specification Judgments

Panelists judged the extent to which the skills reflected by the Praxis Braille Proficiency (0631) assessment content specifications were important for entry-level teachers of students with visual impairments. Panelists rated the six competency areas on a four-point scale ranging from *Very Important* to *Not Important*. The panelists’ ratings are summarized in Table 4.

Reading Contracted and Uncontracted Literary Braille and Nemeth Code was judge *Very Important* by 12 of the 14 panelists (or 86%) with the remaining two panelists indicating that it is *Important*. ***Producing Braille Using a Manual Braillewriter and a Traditional Slate and Stylus*** was judge *Very Important* by 9 of the 14 panelists (or 64%) with five panelists indicating that it is *Important*. All six competency areas were judged to be *Very Important* or *Important* by more than 90% of the panelists.

² The *raw* score SEM values included in this report are updated throughout the year as data become available. The SEM values listed in each edition of *Understanding Your Praxis Scores* (http://www.ets.org/Media/Tests/PRAXIS/pdf/uyyps_web.pdf) are *scaled* score SEM values based on candidate scores on one or more test forms.

Table 4

Specification Rating

	Very Important		Important		Slightly Important		Not Important	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
I. Reading Contracted and Uncontracted Literary Braille and Nemeth Code	12	86%	2	14%	0	0%	0	0%
• Reading contracted and uncontracted literary braille	14	100%	0	0%	0	0%	0	0%
• Reading basic Nemeth Code (e.g., +, -, ×, ÷, =, <, >, %, \$, decimals, punctuation indicators, horizontal and vertical formats of presentation)	7	50%	7	50%	0	0%	0	0%
• Using resources for reading advanced Nemeth Code	5	36%	8	57%	1	7%	0	0%
II. Producing Braille Using a Manual Braillewriter and a Traditional (non-direct) Slate and Stylus	9	64%	5	36%	0	0%	0	0%
• Producing contracted and uncontracted literary braille	10	71%	3	22%	1	7%	0	0%
• Producing basic Nemeth Code (e.g., +, -, ×, ÷, =, <, >, %, \$, decimals, punctuation indicators, horizontal and vertical formats of presentation)	6	43%	8	57%	0	0%	0	0%
• Referring to Nemeth Code rules to produce advanced Nemeth Code	6	43%	7	50%	1	7%	0	0%

Summary of Final Evaluations

The panelists completed an evaluation form at the conclusion of their standard setting study. The evaluation form asked the panelists to provide feedback about the quality of the standard-setting implementation. Table 5 present the results of the final evaluation.

All panelists *Strongly Agreed* that they understood the purpose of the study and that the facilitator’s instructions and explanations were clear. All of the panelists *Agreed* or *Strongly Agreed* that they were prepared to make their standard setting judgments and that the standard-setting process was easy to follow.

Table 5
Final Evaluations

	Strongly Agree		Agree		Disagree		Strongly Disagree	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
I understood the purpose of the study	14	100%	0	0%	0	0%	0	0%
The instructions and explanations were clear	14	100%	0	0%	0	0%	0	0%
The opportunity to “take the test” and to discuss the test content was useful	13	93%	1	7%	0	0%	0	0%
The opportunity to practice making standard setting judgments was useful	11	78%	3	22%	0	0%	0	0%
The training was adequate to complete my assignment	10	71%	4	29%	0	0%	0	0%
The process of making the standard setting judgments was easy to follow	8	57%	6	43%	0	0%	0	0%

Summary

To support the decision-making process for the Virginia Department of Education (VDOE) with regards to establishing a passing score, or cut score, for the Praxis Braille Proficiency (0631) assessment, research staff from Educational Testing Service (ETS) designed and conducted a standard setting study on October 28, 2010, in Richmond, Virginia. The study also collected content-related validity evidence to confirm the importance of the content specifications for entry-level teachers of students with visual impairments. The standard setting study involved an expert panel, comprised of teachers and college faculty.

Standard setting was conducted using a probability-based Angoff approach for the multiple-choice questions and an Extended Angoff method for the constructed-response questions. For the Praxis Braille Proficiency (0631) assessment, the recommended cut score (rounded up) is 25 (on the raw score metric), which represents 69% of total available 36 raw score points. The scaled score associated with a raw score of 25 is 168.

The panel confirmed that the knowledge and/or skills stated or implied in the Praxis Braille Proficiency (0631) assessment content specifications were important for entry-level teachers. The results of the evaluation surveys (initial and final) support the quality of the standard-setting implementation.

References

- Brandon, P.R. (2004). Conclusions about frequently studied modified Angoff standard-setting topics. *Applied Measurement in Education, 17*, 59-88.
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APPENDIX

Panelists' Names and Affiliations

<u>Panelist</u>	<u>Affiliation</u>
LeeAnn Armbruster	Virginia Beach City Public Schools
Carolyn R. Carver	Virginia School for the Deaf
Scottie Ferras	Henrico County Public Schools
Roxane Hanson	Spotsylvania County Schools
Gail Henrich	Norfolk Public Schools
Mary Kate Jacob	Washington County Public Schools
Helen T. Mast	Roanoke County Public Schools
Donna Mayberry	Laurel Regional Program
Marian S. McHugh	Salem City Schools
Tracey O'Malley	Fairfax County Public Schools
Julienne B. Parker	Danville City Public Schools
Leslie Parrott	Prince William County Schools
Linda K. Ross	Newport News Public School
André B. Webb	Fairfax County Public Schools
James Lanham, Director	Virginia Department of Education
Buffa Hanse	National Federation of the Blind (Virginia)
Clyde Reese, Facilitator	Educational Testing Service
Rick Cullors, Client Relations Director	Educational Testing Service

AGENDA
Praxis Braille Proficiency Assessment

Standard Setting Study

October 28, 2010

7:30 – 8:30	Continental Breakfast & Registration
8:30 – 8:45	Welcome and Introduction
8:45 – 9:00	Overview of the Licensure Process in Virginia
9:00 – 9:15	Overview of Standard Setting & Workshop Events
9:15 – 9:30	Overview of the Praxis Braille Proficiency Assessment
9:30 – 11:00	“Take” the Praxis Braille Proficiency Assessment
11:00 – 11:30	Discuss the Praxis Braille Proficiency Assessment
11:30 – 12:00	Define the Knowledge/Skills of a JQC
12:00 – 12:45	Lunch
12:45 – 1:30	Define the Knowledge/Skills of a JQC (continued)
1:30 – 2:00	Standard Setting Training for M-C Items
2:00 – 2:45	Standard Setting Judgments for Multiple-Choice
2:45 – 3:00	Break
3:00 – 3:30	Standard Setting Training for CR Items
3:30 – 4:00	Standard Setting Judgments for Constructed-Response
4:00 – 4:30	Specification Judgments
4:30 – 5:00	Complete Final Evaluation, Collect Materials & Adjourn



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Praxis Braille Proficiency (0631)

Knowledge and Competencies: Braille and Nemeth Code

I. Reading Contracted and Uncontracted Literary Braille and Nemeth Code

- Reading contracted and uncontracted literary braille.
- Reading basic Nemeth Code (e.g., +, -, ×, ÷, =, <, >, %, \$, decimals, punctuation indicators, horizontal and vertical formats of presentation).
- Using resources for reading advanced Nemeth Code.

II. Producing Braille using a manual braillewriter and a traditional (non-direct) slate and stylus

- Producing contracted and uncontracted literary braille.
- Producing basic Nemeth Code (e.g., +, -, ×, ÷, =, <, >, %, \$, decimals, punctuation indicators, horizontal and vertical formats of presentation).
- Referring to Nemeth Code rules to produce advanced Nemeth Code.