## OFFICE OF QUALITY PROFESSIONALS AND SPECIAL SCHOOLS Summary of State Board of Education Agenda Items April 19-20, 2012

#### OFFICE OF EDUCATOR LICENSURE

23. Approval to begin the Administrative Procedures Act process: To Approve Regenerated Praxis Test for Deaf and Hard of Hearing and Recommended Passing Score as Recommended by the Commission on Teacher and Administrator Education, Certification and Licensure and Development

### **Background Information:**

Educational Testing Service has concluded a national standard setting review of the Praxis II test 0272 for Deaf and Hard of Hearing. This test replaces the current test for the Hearing Impaired license, which is 0271.

On March 2, 2012, The Certification Commission approved the recommendation to accept the regenerated Praxis II 0272 with a national score of 160.

In Mississippi, the Praxis II test 0271 is required for Deaf Education majors to become certified, as well as applicants wanting to add Hearing Impaired to their license as a supplemental endorsement.

All Praxis scores submitted to the State Board of Education for approval reflect passing scores recommended by the national standards setting panel.

Recommendation: Approval

Back-up material attached



## Multi-State Standard Setting Technical Report

## PRAXIS<sup>™</sup> SPECIAL EDUCATION: EDUCATION OF DEAF AND HARD OF HEARING STUDENTS (0272)

Educational and Credentialing Research

Educational Testing Service

Princeton, New Jersey

November 2011

## **Executive Summary**

To support the decision-making process for state departments of education with regards to establishing a passing score, or cut score, for the Praxis<sup>TM</sup> Special Education: Education of Deaf and Hard of Hearing Students (0272) test, research staff from Educational Testing Service (ETS) designed and conducted a two-panel, multi-state standard-setting study. The study also collected content-related validity evidence to confirm the importance of the content specifications for entry-level teachers of deaf and hard of hearing students.

## **Participating States**

Panelists from eleven states, the District of Columbia, and Guam were recommended by state departments of education to participate on expert panels. The state departments of education recommended panelists with (a) education experience, either as teachers of deaf and hard of hearing students or college faculty who prepare teachers of deaf and hard of hearing students and (b) familiarity with the knowledge and skills required of beginning teachers of deaf and hard of hearing students.

#### **Recommended Cut Scores**

The recommended passing score for each panel, as well as the average passing score across the two panels, are provided to help state departments of education determine an appropriate operational passing score. For the Praxis Special Education: Education of Deaf and Hard of Hearing Students test, the recommended passing score<sup>1</sup> is 67 (out of a possible 100 raw-score points). The scaled score associated with a raw score of 67 is 160 (on a 100 - 200 scale).

#### **Summary of Content Specification Judgments**

Panelists judged the extent to which the knowledge and skills reflected by the content specifications were important for entry-level teachers of deaf and hard of hearing students. The favorable judgments of the panelists provided evidence that the content covered by the test is important for beginning practice.

<sup>&</sup>lt;sup>1</sup> Results from the two panels participating in the study were averaged to produce the recommended passing score.

To support the decision-making process for state departments of education with regards to establishing a passing score, or cut score, for the Praxis<sup>TM</sup> Special Education: Education of Deaf and Hard of Hearing Students (0272) test, research staff from Educational Testing Service (ETS) designed and conducted a two-panel, multi-state standard-setting study. The study also collected content-related validity evidence to confirm the importance of the content specifications for entry-level teachers of deaf and hard of hearing students. Panelists were recommended by state departments of education<sup>2</sup> to participate on the expert panels. The state departments of education recommended panelists with (a) education experience, either as teachers of deaf and hard of hearing students or college faculty who prepare teachers of deaf and hard of hearing students and (b) familiarity with the knowledge and skills required of beginning teachers of deaf and hard of hearing students.

The two, non-overlapping panels (a) allow each participating state to be represented and (b) provide a replication of the judgment process to strengthen the technical quality of the recommended passing score. Eleven states, the District of Columbia, and Guam (see Table 1) were represented by 26 panelists across the panels. (See Appendix A for the names and affiliations of the panelists.)

Table 1

Participating States and Number of Panelists(Across Panels)

Arkansas (4 panelists)	Maine (1 panelist)
District of Columbia (4 panelists)	North Dakota (1 panelist)
Guam (1 panelist)	Rhode Island (1 panelist)
Hawaii (1 panelist)	South Carolina (2 panelists)
Idaho (1 panelist)	Tennessee (1 panelist)
Kentucky (2 panelists)	West Virginia (4 panelists)
Louisiana (3 panelists)	

The panels were convened in October and November 2011 in Princeton, New Jersey. For both panels, the same processes and methods were used to train panelists, gather panelists' judgments and to calculate the recommended passing scores.

<sup>&</sup>lt;sup>2</sup> State departments of education that currently use one or more Praxis tests were invited to participate in the multi-state standard-setting study.

The following technical report is divided into three sections. The first section describes the content and format of the test. The second section describes the standard-setting processes and methods. The third section presents the results of the standard-setting study.

The passing-score recommendation for the Praxis Special Education: Education of Deaf and Hard of Hearing Students test is provided to each of the represented state departments of education. In each state, the department of education, the state board of education, or a designated educator licensure board is responsible for establishing the final passing score in accordance with applicable state regulations. The study provides a recommended passing score, which represent the combined judgments of two groups of experienced educators. The full range of a state department of education's needs and expectations cannot likely be represented during the standard-setting study. Each state, therefore, may want to consider the recommended passing score (as well as the separate panels' recommended passing scores) and other sources of information when setting the final Praxis Special Education: Education of Deaf and Hard of Hearing Students passing score (see Geisinger & McCormick, 2010). A state may accept the recommended passing score, adjust the score upward to reflect more stringent expectations, or adjust the score 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 state's needs.

Two sources of information to consider when setting the passing score are the standard errors of measurement (SEM) and the standard errors of judgment (SEJ). The former addresses the reliability of Praxis Special Education: Education of Deaf and Hard of Hearing Students test score and the latter, the reliability of panelists' passing-score recommendations. The SEM allows a state to recognize that a Praxis Special Education: Education of Deaf and Hard of Hearing Students test 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 allow a state to consider the likelihood that the recommended passing score from the current panels would be similar to the passing 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 passing score for a test consistent with the recommended passing score. The larger the SEJ, the less likely the recommended passing score would be reproduced by another panel.

In addition to measurement error metrics (e.g., SEM, SEJ), each state should consider the likelihood of classification error. That is, when adjusting a passing 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 level of knowledge/skills indicates otherwise (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 state needs to consider which decision error may be more important to minimize.

## Overview of the Praxis Special Education: Education of Deaf and Hard of Hearing Students Test

The Praxis Special Education: Education of Deaf and Hard of Hearing Students *Test at a Glance* document (ETS, in press) describes the purpose and structure of the test. In brief, the test measures whether entry-level teachers of deaf and hard of hearing students have the knowledge and skills believed necessary for competent professional practice. A National Advisory Committee of expert practitioners and preparation faculty defined the content of the test, and a national survey of the field confirmed the content.

The two hour assessment contains 120 multiple-choice questions<sup>3</sup> covering five content areas: Characteristics of Learners and Their Development (approximately 19 questions); Assessment, Diagnosis, Evaluation, and Program Planning (approximately 28 questions); Instructional Content and General Pedagogy (approximately 28 questions); Planning and Managing the Learning Environment (approximately 21 questions); and Foundations of Deaf Education and Professional Practice (approximately 24 questions)<sup>4</sup>. The reporting scale for the Praxis Special Education: Education of Deaf and Hard of Hearing Students test ranges from 100 to 200 scaled-score points.

The first national administration of the new Praxis Special Education: Education of Deaf and Hard of Hearing Students test will occur in fall 2012.

<sup>&</sup>lt;sup>3</sup> Twenty of the 120 multiple-choice questions are pretest questions and do not contribute to a candidate's score.

<sup>&</sup>lt;sup>4</sup> The number of questions for each content area may vary slightly from form to form of the test.

### **Processes and Methods**

For both expert panels, the same processes and methods were used to train panelists, gather panelists' judgments and to calculate the recommended passing scores. The following section describes the standard-setting processes and methods. (The agenda for the panel meetings are presented in Appendix B.)

The design of the standard-setting study included two non-overlapping expert panels. The training provided to panelists as well as the study materials were consistent across panels with the exception of defining the Just Qualified Candidate (JQC). To assure that both panels were using the same frame of reference when making question-level standard-setting judgments, the JQC definition developed through a consensus process by the first panel was used as the definition for the second panel. The second panel did complete a thorough review of the definition to allow panelists to internalize the definition. The processes for developing the definition (with Panel 1) and reviewing/internalizing the definition (with Panel 2) are described later, and the JQC definition is presented in Appendix C.

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 test (included in the *Test at a Glance* document, 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 test.

The standard-setting study began with a welcome and introduction by the meeting facilitator. The facilitator explained how the test was developed, provided an overview of standard setting, and presented the agenda for the study.

#### **Reviewing the Test**

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. (Panelists were instructed not to refer to the answer key while taking the test.) 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 checked their responses against the answer key.

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

#### **Defining the Just Qualified Candidate**

Following the review of the test, panelists internalized the definition of the Just Qualified Candidate (JQC). The JQC is the test taker who has the minimum level of knowledge believed necessary to be a qualified teacher of deaf and hard of hearing students. The JQC definition is the operational definition of the passing score. The goal of the standard-setting process is to identify the test score that aligns with this definition of the JQC.

Panel 1 developed the JQC definition. The panelists were split into smaller groups, and each group was asked to write down their definition of a JQC. Each group referred to the Praxis Special Education: Education of Deaf and Hard of Hearing Students *Test at a Glance* to guide their definition. Each group posted its definition on chart paper, and a full-panel discussion occurred to reach a consensus on a definition (see Appendix C for the definition).

For Panel 2, the panelists began with the definition of the JQC developed by Panel 1. Given that the multi-state standard-setting study was designed to replicate processes and procedures across the two panels, it was important that both panels use consistent JQC definitions to frame their judgments. The panelists reviewed the JQC definition, and any ambiguities were discussed and clarified. The panelists then were split into smaller groups, and each group developed performance indicators or "can do" statements based on the definition. The purpose of the indicators was to provide clear examples of what might be observed to indicate that the teacher had the defined knowledge and skills. The performance indicators were shared and discussed.

#### Panelists' Judgments

The standard-setting process for the Praxis Special Education: Education of Deaf and Hard of Hearing Students test was a probability-based Angoff method (Brandon, 2004; Hambleton & Pitoniak, 2006). In this approach, for each 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.

For both panels, 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 1.0. The two-stage decision-process was implemented to reduce the cognitive load placed on the panelists. The panelists practiced making their standard-setting judgments on several questions on the test.

The panelists engaged in two rounds of judgments. Following Round 1, question-level feedback was provided to the panel. The panelists' judgments were displayed for each question. The panelists' judgments were summarized by the three general difficulty levels (0 to .30, .40 to .60, and .70 to 1), and the panel's average question judgment was provided. Questions were highlighted to show when panelists converged in their judgments (at least two-thirds of the panelists located a question in the same difficulty range) or diverged in their judgments. Panelists were asked to share their rationales for the judgments they made. Following this discussion, panelists were provided an opportunity to change their question-level standard-setting judgments (Round 2).

Other than the definition of the JQC, results from Panel 1 were not shared with the second panel. The question-level judgments and resulting discussions for Panel 2 were independent of judgments and discussions that occurred with Panel 1.

### **Judgment of Content Specifications**

In addition to the two-round standard-setting process, each panel judged the importance of the knowledge and skills stated or implied in the content specifications for the job of an entry-level teacher of deaf and hard of hearing students. These judgments addressed the perceived content-based validity of the test. Judgments were made using a four-point scale — Very Important, Important, Slightly Important, and Not Important. Each panelist independently judged the knowledge categories and knowledge statements.

### **Results**

The recommended passing score presented is the average of the results from the two panels.

Results from the separate panels also are presented. More detailed results are presented in Appendix D.

## **Expert Panels**

The two panels that comprised the study included 26 educators representing eleven states, the District of Columbia, and Guam. (See Appendix A for a listing of panelists.) In brief, 16 panelists were teachers, six were college faculty, two were administrators or department heads, and two indicated they were specialists. Five of the six panelists who were college faculty were currently involved in the training or preparation of teachers of deaf and hard of hearing students. Twenty-three panelists were White, two were Black or African American, and one was Native Hawaiian or other Pacific Islander. Twenty-five panelists were female. Of the panelists who indicated they were currently teachers or specialists, over half of the panelists (10 of the 18 panelists) had 11 or fewer years of experience as a teacher. Table 2 shows the demographic information across both panels.

The number of experts by panel and their demographic information is presented in Appendix D (see Table D1).

Table 2

Panel Member Demographics (Across Panels)

	N	%
<b>Current Position</b>		
Teacher	16	62%
Administrator/Department Head	2	8%
College Faculty	6	23%
Specialist	2	8%
Race		
White	23	88%
Black or African American	2	8%
Native Hawaiian or Other Pacific Islander	1	4%
Gender		
Female	25	96%
Male	1	4%
Are you currently certified as a teacher of deaf and hard of hearing students in your state?		
Yes	17	65%
No	1	4%
Not currently teaching at the K-12 level	8	31%
What grades are you currently teaching <sup>‡</sup> ?		
Pre-Kindergarten	2	8%
Kindergarten	7	27%
Grade 1	8	31%
Grade 2	8	31%
Grade 3	8	31%
Grade 4	6	23%
Grade 5	8	31%
Grade 6	10	38%
Grade 7	9	35%
Grade 8	7	27%
Grade 9	10	38%
Grade 10	8	31%
Grade 11	7	27%
Grade 12	7	27%
Not currently teaching at the K-12 level	8	31%

<sup>‡</sup> Panelists indicating they were currently teachers were asked to list all grades they teach.

Table 2 (continued)

Panel Member Demographics (Across Panels)

	N	%
How many years of experience do you have as a teacher of deaf students in your state?	and hard of h	nearing
3 years or less	2	8%
4 - 7 years	5	19%
8 - 11 years	3	12%
12 - 15 years	2	8%
16 years or more	6	23%
Not currently teaching at the K-12 level	8	31%
Which best describes the location of your K-12 school?		
Urban	7	27%
Suburban	3	12%
Rural	10	38%
Not currently working at the K-12 level	6	23%
If you are college faculty, are you currently involved in the train teachers who teach deaf and/or hard of hearing students?	ning/preparat	ion of
Yes	5	19%
No	1	4%
Not college faculty	20	77%

#### **Initial Evaluation Forms**

The panelists completed an initial evaluation after receiving training on how to make standard-setting judgments. The primary information collected from this form was the panelists indicating if they had received adequate training to make their standard-setting judgments and were ready to proceed. Across both panels, all panelists indicated that they were prepared to make their judgments.

## **Summary of Standard-setting Judgments**

A summary of standard-setting judgments (Round 2) are presented in Table 3. The numbers in the table summarize the recommended passing scores—the number of raw points needed to "pass" the test. The panel's average recommended passing score and highest and lowest passing scores are reported, as are the standard deviations (SD) of panelists' passing scores and the standard errors of judgment (SEJ). Panelist-level results, for Rounds 1 and 2, are presented in Appendix D (see Tables D2 and D3).

The SEJ is one way of estimating the reliability of the judgments<sup>5</sup>. It indicates how likely it would be for other panels of educators similar in makeup, experience, and standard-setting training to the current panel to recommend the same passing score on the same form of the test. A comparable panel's passing score would be within one SEJ of the current average passing score 68 percent of the time.

Round 1 judgments are made without discussion among the panelists. The most variability in judgments, therefore, is typically present in the first round. Round 2 judgments, however, are informed by panel discussion; thus, it is common to see a decrease both in the standard deviation and SEJ. This decrease — indicating convergence among the panelists' judgments — was observed for both panels (see Tables D2 and D3 in Appendix D). The Round 2 average score is the panel's recommended passing score. Each panel's recommended passing score is shown in Table 3.

The panels' passing score recommendations for the Praxis Special Education: Education of Deaf and Hard of Hearing Students test are 65.05 for Panel 1 and 67.41 for Panel 2 (out of a possible 100 raw-score points). The values were rounded to the next highest whole number to determine the functional recommended cut scores — 66 for Panel 1 and 68 for Panel 2. The scaled scores associated with 66 and 68 raw points are 159 and 161, respectively.

Table 3
Summary of Round 2 Standard-setting Judgments

Panel 1	Panel 2
65.05	67.41
65.20	68.10
58.60	58.90
70.95	75.80
4.38	5.31
1.17	1.53
	65.05 65.20 58.60 70.95 4.38

In addition to the recommended passing score for each panel, the average passing score across the two panels is provided to help state departments of education determine an appropriate passing score for the Praxis Special Education: Education of Deaf and Hard of Hearing Students test. The panels'

<sup>&</sup>lt;sup>5</sup> An SEJ assumes that panelists are randomly selected and that standard-setting judgments are independent. It is seldom the case that panelists are randomly sampled, and only the first round of judgments may be considered independent. The SEJ, therefore, likely underestimates the uncertainty of passing scores (Tannenbaum & Katz, in press).

average passing score recommendation for the Praxis Special Education: Education of Deaf and Hard of Hearing Students test is 66.23 (out of a possible 100 raw-score points). The value was rounded to 67 (next highest raw score) to determine the functional recommended passing score. The scaled score associated with 67 raw points is 160.

Table 4 presents the estimated conditional standard error of measurement (CSEM) around the recommended passing score. A standard error represents the uncertainty associated with a test score. The scaled score associated with one and two CSEMs above and below the recommended passing score are provided. The conditional standard errors of measurement provided are estimates, given that the Praxis Special Education: Education of Deaf and Hard of Hearing Students test has not yet been administered operationally.

Table 4

Passing Scores Within 1 and 2 CSEMs of the Recommended Passing Score<sup>6</sup>

Recommended passin	ng score (CSEM)	Scale score equivalent
67 (4.7	(3)	160
- 2 CSEMs	58	147
-1 CSEM	63	154
+1 CSEM	72	167
+ 2 CSEMs	77	174

### **Summary of Content-specification Judgments**

Panelists judged the extent to which the knowledge reflected by the content specifications was important for entry-level teachers of deaf and hard of hearing students. Panelists rated the knowledge/skill statements on a four-point scale ranging from *Very Important* to *Not Important*. The panelists' ratings are summarized in Appendix D (see Table D4).

The knowledge/skill statements are categorized into one of the five major content areas. Overall, 34 of the 46 statements were judged to be *Very Important* or *Important* by at least three-quarters of the 26 panelists. Nine of the eleven statements defining *Characteristics of Learners and Their Development* were judged to be *Very Important* or *Important* by at least 75% of the panelists who responded. For *Assessment, Diagnosis, Evaluation, and Program Planning*, 10 of the 12 statements were judged to be

<sup>&</sup>lt;sup>6</sup> The unrounded CSEM value is added to or subtracted from the rounded passing score recommendation. The resulting values are rounded up to the next highest whole number and the rounded values are converted to scaled scores.

Very Important or Important by at least 75% of the panelists who responded. For Instructional Content and General Pedagogy, six of the seven statements were judged to be Very Important or Important by at least 75% of the panelists who responded. For Planning and Managing the Learning Environment, three of the six statements were judged to be Very Important or Important by at least 75% of the panelists who responded. For Foundations of Deaf Education and Professional Practice, seven of the ten statements were judged to be Very Important or Important by at least 75% of the panelists who responded.

#### **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 and the factors that influenced their decisions. A summary of the final evaluation results are presented in Appendix D (see Tables D5 and D6).

All panelists *strongly agreed* that they understood the purpose of the study, and that the facilitator's instructions and explanations were clear. All panelists *strongly agreed* that they were prepared to make their standard-setting judgments. Across both panels, all panelists *strongly agreed* or *agreed* that the standard-setting process was easy to follow (25 of the 26 panelists *strongly agreed* with the statement).

All panelists reported that the definition of the JQC was at least *somewhat influential* in guiding their standard-setting judgments; 24 of the 26 panelists indicated the definition was *very influential*. All but one of the panelists reported that between-round discussions were at least *somewhat influential* in guiding their judgments. Approximately three-quarters of the panelists (20 of the 26 panelists) indicated that their own professional experience was *very influential* in guiding their judgments.

All but three of the panelists indicated they were at least *somewhat comfortable* with the passing score they recommended; 14 of the 26 panelists were *very comfortable*. Twenty-one of the 26 panelists indicated the recommended passing score was *about right* with the remaining five panelists believing the passing score was *too low*.

## **Summary**

To support the decision-making process for state departments of education with regards to establishing a passing score, or cut score, for the Praxis Special Education: Education of Deaf and Hard of Hearing Students (0272) test, research staff from Educational Testing Service designed and conducted a two-panel, multi-state standard-setting study. The study also collected content-related validity evidence to confirm the importance of the content specifications for entry-level teachers of deaf and hard of hearing students.

The recommended passing score for each panel, as well as the average passing score across the two panels, are provided to help state departments of education determine an appropriate operational passing score. For the Praxis Special Education: Education of Deaf and Hard of Hearing Students test, the recommended passing score<sup>7</sup> is 67 (out of a possible 100 raw-score points). The scaled score associated with a raw score of 67 is 160 (on a 100 - 200 scale).

Panelists judged the extent to which the knowledge and/or skills reflected by the content specifications was important for entry-level teachers of deaf and hard of hearing students. The favorable judgments of the panelists provided evidence that the content covered by the test is important for beginning practice.

<sup>&</sup>lt;sup>7</sup> Results from the two panels participating in the study were averaged to produce the recommended passing score.

#### References

- Brandon, P.R. (2004). Conclusions about frequently studied modified Angoff standard-setting topics. *Applied Measurement in Education*, *17*, 59-88.
- ETS. (in press). *The Praxis Series: Special Education: Education of Deaf and Hard of Hearing Students* (0272). Princeton, NJ: Author.
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- Hambleton, R. K., & Pitoniak, M.J. (2006). Setting performance standards. In R. L. Brennan (Ed.), *Educational Measurement* (4th ed., pp. 433-470). Westport, CT: American Council on Education/Praeger.
- Tannenbaum, R.J., & Katz, I.R. (forthcoming). Standard setting. In K.F. Geisinger (Ed.), *APA Handbook of Testing and Assessment in Psychology*. Washington, DC: American Psychological Association.

## Appendix A Panelists' Names & Affiliations

## Praxis Special Education: Education of Deaf and Hard of Hearing Students

<u>Panelist</u> <u>Affiliation</u>

Elaine Alexander Tennessee School for the Deaf (TN)

Monica Britt Marshall University Graduate College\Raleigh Co. Schools (WV)

Becky Del Rio Pulaski County Special School District (AR)

Heidi Givens Country Heights Elementary, Daviess County Public Schools (KY)

Kristal S. Harne Liberty Elementary School (KY)
Jennifer Hedberg Cranston Public Schools (RI)

Caroline Hostetler South Carolina School for the Deaf and the Blind (SC)

Denise Howell Tangipahoa Parish School System (Independence High) (LA)

Barbara Morris Hunt District of Columbia Public Schools (DC)

John Jarrett Louisiana School for the Deaf (LA)

Erica Kouzmanoff-Vymyslicky Horry County Schools\Black Water Middle School (SC)

Sarah Santos Leon Guerrero Guam Community College (Guam)
Suzanne MK Smith Lynch St. Tammany Parish Schools (LA)

Iris L. McCrea Hardy Middle School (DC)

Patricia Myers Marshall University Graduate College (WV)

Lorna R. Nulph Clinton Public Schools (AR)
Holly F. Pedersen Minot State University (ND)
Tammy Phillips Marion County Schools (WV)

Lynda Sisco North Little Rock School District (AR)

Gretchen Spooner Idaho School for the Deaf and the Blind (ID)
Katherine Strack Maine School Administrative District 51 (ME)

Raschelle Theoharis Gallaudet University (DC)

Barbara Thompson Putnam County WV Schools (WV)

Amy Young Little Rock School District (AR)

Christina Yuknis Gallaudet University (DC)

<sup>\*</sup>One panelist did not give permission to have his/her name listed in the Technical Report.

## Appendix B Study Agenda

## AGENDA

## Praxis Special Education: Education of Deaf and Hard of Hearing Students (0272) Standard Setting Study

## Day 1

9:00 – 9:15	Welcome and Introduction
9:15 – 10:00	Overview of Standard Setting & the Praxis Special Education: EDHH Test
10:00 - 10:15	Break
10:15-11:45	"Review" the Praxis Special Education: EDHH Test
11:45 – 12:15	Discuss the Praxis Special Education: EDHH Test
12:15 – 1:15	Lunch
1:15 – 1:45	Introduction to Defining the Knowledge/Skills of a JQC
1:45 – 2:45	Work in Groups (Break as needed)
2:45 – 4:00	Consensus on JQC Definition

## AGENDA

## Praxis Special Education: Education of Deaf and Hard of Hearing Students (0272) Standard Setting Study

## Day 2

9:00 – 9:15	Overview of Day 2
9:15 – 9:45	Review JQC Definition
9:45 – 10:30	Standard Setting Training
10:30 – 12:00	Round 1 Standard Setting Judgments for Multiple-Choice: Question 1-120 (Break as needed)
12:00 - 1:00	Lunch
1:00-2:30	Round 1 Feedback & Round 2 Judgments
2:30-2:45	Break
2:45 – 4:00	Round 1 Feedback & Round 2 Judgments (continued)

## AGENDA

## Praxis Special Education: Education of Deaf and Hard of Hearing Students (0272) Standard Setting Study

## Day 3

9:00-9:15	Overview of Day 3
9:15 – 10:00	Specification Judgments
10:00 - 10:15	Feedback on Round 2 Recommended Cut Score
10:15 – 10:30	Break
10:30 – 11:15	Complete Final Evaluation
11:15 – 12:00	Collect Materials; End of Study
12:00 - 1:00	Lunch

## Appendix C Just Qualified Candidate (JQC) Definition

### **Description of a Just Qualified Candidate**

#### A JQC ...

- 1. Understands the factors that affect the development of deaf and hard of hearing learners and the impact on academic, social, cognitive, behavioral, and linguistic development.
- 2. Knows how the audiological history impacts receptive and expressive communication.
- 3. Understands the "referral to placement" process and valid assessments used to determine and plan programming and services.
- 4. Understands and identifies appropriate tools to evaluate and accommodate deaf and hard of hearing learners.
- 5. Has a general understanding of curriculum materials, techniques, and technologies that correlate with states' standards and support multiple learning styles of deaf and hard of hearing students.
- 6. Recognizes best practices in classroom management to create a safe learning environment and promotes achievement of deaf and hard of hearing learners.
- 7. Understands the basic function, components and maintenance needs of assistive listening and communication devices.
- 8. Identifies the components of IDEA and how it applies to the DHH learner.
- 9. Knows each IEP team members' collaborative role in meeting the needs of DHH learners.
- 10. Identifies the different communication philosophies and modalities in deaf education and culture.

# Appendix D Results for Praxis Special Education: Education of Deaf and Hard of Hearing Students

Table D1

Panel Member Demographics (By Panel)

	Panel 1		Panel 2	
	N	%	N	%
<b>Current Position</b>				
Teacher	10	71%	6	50%
Administrator or Department Head	1	7%	1	8%
College Faculty	3	21%	3	25%
Specialist	0	0%	2	17%
Race				
White	13	93%	10	83%
Black or African American	1	7%	1	8%
Native Hawaiian or Other Pacific Islander	0	0%	1	8%
Gender				
Female	13	93%	12	10%
Male	1	7%	0	0%
Are you currently certified as a teacher of deaf and hard of hearing students?				
Yes	9	64%	8	67%
No	1	7%	0	0%
Not currently teaching at the K-12 level	4	29%	4	33%
What grades are you currently teaching <sup>‡</sup> ?				
Pre-Kindergarten	0	0%	2	17%
Kindergarten	3	21%	4	33%
Grade 1	5	36%	3	25%
Grade 2	5	36%	3	25%
Grade 3	6	43%	2	17%
Grade 4	4	29%	2	17%
Grade 5	5	36%	3	25%
Grade 6	6	43%	4	33%
Grade 7	6	43%	3	25%
Grade 8	5	36%	2	17%
Grade 9	7	50%	3	25%
Grade 10	4	29%	4	33%
Grade 11	3	21%	4	33%
Grade 12	4	29%	3	25%
Not currently teaching at the K-12 level	3	21%	5	42%

<sup>&</sup>lt;sup>‡</sup> Panelists indicating they were currently teachers were asked to list all grades they teach.

Table D1 (continued)

Panel Member Demographics (By Panel)

	Panel 1		Panel 2	
	N	%	N	%
How many years of experience do you have as a teacher of				
deaf and hard of hearing students in your state?				
3 years or less	2	14%	0	0%
4 - 7 years	3	21%	2	17%
8 - 11 years	1	7%	2	17%
12 - 15 years	2	14%	0	0%
16 years or more	2	14%	4	33%
Not currently teaching at the K-12 level	4	29%	4	33%
Which best describes the location of your K-12 school?				
Urban	6	43%	1	8%
Suburban	1	7%	2	17%
Rural	4	29%	6	50%
Not currently working in a K-12 school	3	21%	3	25%
If you are college faculty, are you currently involved in the training/preparation of teachers of deaf and hard of hearing students?				
Yes	3	21%	2	17%
No	0	0%	1	8%
Not college faculty	11	79%	9	75%

Table D2
Passing Score Summary by Round of Judgments — Panel 1

Panelist	Round 1	Round 2
1	58.40	58.60
2	69.50	68.60
3	68.20	67.00
4	62.25	62.65
5	72.70	70.95
6	60.50	59.75
7	67.95	67.15
8	71.30	70.90
9	77.60	70.10
10	60.20	60.40
11	58.95	60.15
12	68.15	67.75
13	61.90	63.40
14	55.15	63.30
Average	65.20	65.05
Median	65.10	65.20
Lowest	55.15	58.60
Highest	77.60	70.95
$\ddot{\mathbf{S}}\mathbf{D}$	6.47	4.38
SEJ	1.73	1.17

Table D3
Passing Score Summary by Round of Judgments — Panel 2

Panelist	Round 1	Round 2
1	66.50	72.15
2	68.35	69.50
3	75.60	73.60
4	64.40	67.50
5	58.80	58.90
6	70.15	69.75
7	58.50	59.20
8	66.70	66.30
9	77.50	75.80
10	62.95	64.05
11	66.55	68.70
12	62.30	63.45
Average	66.53	67.41
Median	66.53	68.10
Lowest	58.50	58.90
Highest	77.50	75.80
SD	5.87	5.31
SEJ	1.69	1.53

Table D4

Specification Judgments — Special Education: Education of Deaf and Hard of Hearing Students

	$\mathbf{V}$	ery			Sli	ghtly	N	lot
	Imp	Important Important		Imp	ortant	Impo	ortant	
	N	<b>%</b>	N	%	N	<b>%</b>	N	%
CHARACTERISTICS OF LEARNERS AND THEIR	19	<b>73%</b>	7	<b>27%</b>	0	0%	0	0%
DEVELOPMENT								
• Stages and characteristics of human development	14	54%	12	46%	0	0%	0	0%
• Factors affecting development of deaf and hard of	21	81%	4	15%	1	4%	0	0%
hearing (DHH) students								
<ul> <li>Anatomy and physiology of speech and hearing mechanisms</li> </ul>	5	19%	12	46%	9	35%	0	0%
• Impact of hearing loss on speech and hearing	22	85%	3	12%	1	4%	0	0%
• Relationships among speech, hearing, language, and communication and the implications for DHH learners	17	65%	8	31%	1	4%	0	0%
Hearing loss etiologies and resulting difficulties	5	19%	19	73%	1	4%	1	4%
• Effects of etiology, age, and degree of loss on	19	73%	6	23%	1	4%	0	0%
development of DHH students								
• Family dynamics	5	19%	15	58%	6	23%	0	0%
<ul> <li>Impact of early intervention on communication and language development</li> </ul>	19	73%	7	27%	0	0%	0	0%
<ul> <li>Cochlear implantation</li> </ul>	4	15%	15	58%	5	19%	2	8%
Hearing-aid technology	12	46%	8	31%	6	23%	0	0%

Table D4

Specification Judgments — Special Education: Education of Deaf and Hard of Hearing Students

	V	ery			Sli	ghtly	N	lot
	Important		Imp	ortant	Imp	ortant	Importan	
	N	%	N	%	N	%	N	%
II. ASSESSMENT, DIAGNOSIS, EVALUATION, AND	8	31%	18	<b>69%</b>	0	0%	0	0%
PROGRAM PLANNING								
<ul> <li>Referral process</li> </ul>	11	42%	11	42%	4	15%	0	0%
<ul> <li>Audiological assessments</li> </ul>	8	31%	14	54%	3	12%	1	4%
<ul> <li>Collaboration with stakeholders</li> </ul>	5	19%	14	54%	7	27%	0	0%
<ul> <li>Gathering data for recommendations</li> </ul>	19	73%	7	27%	0	0%	0	0%
<ul> <li>Stakeholder roles in the IEP process</li> </ul>	5	19%	18	69%	3	12%	0	09
<ul> <li>Development and maintenance of assessment records</li> </ul>	9	35%	13	50%	4	15%	0	09
<ul> <li>Influence of diversity</li> </ul>	10	38%	13	50%	3	12%	0	09
<ul> <li>Legal and ethical issues related to assessment</li> </ul>	16	62%	10	38%	0	0%	0	0%
<ul> <li>Communication with other professionals and parents</li> </ul>	4	15%	18	69%	4	15%	0	0%
<ul> <li>Performance data and informal input</li> </ul>	12	46%	14	54%	0	0%	0	09
<ul> <li>Language samples</li> </ul>	7	27%	10	38%	8	31%	1	49
<ul> <li>Assessment instruments</li> </ul>	6	23%	13	50%	6	23%	1	49
III.INSTRUCTIONAL CONTENT AND GENERAL	21	81%	5	19%	0	0%	0	0%
<ul><li>PEDAGOGY</li><li>Curriculum materials and instructional practices</li></ul>	14	54%	12	46%	0	0%	0	09
<ul> <li>Language development</li> </ul>	25	96%	1	4%	0	0%	0	09
<ul> <li>Language development</li> <li>Literacy and communication skills</li> </ul>	22	85%	4	15%	0	0%	0	09
•	20	77%	6	23%	0	0%	0	09
• Instructional techniques								
• Lesson plans	14	54%	10	38%	2	8%	0	09
Communication during instruction	15	58%	10	38%	1	4%	0	09
<ul> <li>Transitions</li> </ul>	4	15%	9	35%	13	50%	0	09

Table D4

Specification Judgments — Special Education: Education of Deaf and Hard of Hearing Students

	$\mathbf{V}$	ery			Slig	ghtly	N	lot
	Important		Important Important		Impo	ortant	Imp	ortant
	N	%	N	%	N	%	N	%
V. PLANNING AND MANAGING THE TEACHING	10	38%	15	<b>58%</b>	1	4%	0	0%
AND LEARNING ENVIRONMENT								
<ul> <li>Best practices in classroom management</li> </ul>	15	58%	11	42%	0	0%	0	0%
<ul> <li>Classroom and in-school transitions</li> </ul>	0	0%	15	58%	10	38%	1	4%
<ul> <li>Assistive listening and communication devices</li> </ul>	17	65%	7	27%	2	8%	0	0%
<ul> <li>Establishing and maintaining a safe classroom</li> </ul>	15	58%	10	38%	1	4%	0	0%
<ul> <li>Contributions of others</li> </ul>	2	8%	12	46%	11	42%	1	4%
<ul> <li>Cochlear implants</li> </ul>	7	27%	11	42%	5	19%	3	129
V. FOUNDATIONS OF DEAF EDUCATION AND	15	58%	8	31%	3	12%	0	0%
<ul><li>PROFESSIONAL PRACTICE</li><li>Developments in deaf education</li></ul>	4	15%	13	50%	7	27%	2	8%
Service delivery models	10	38%	11	42%	4	15%	1	4%
IDEA legislation	22	85%	3	12%	1	4%	0	0%
<ul> <li>Legal and ethical implications of laws, regulations, and court cases</li> </ul>	12	46%	10	38%	3	12%	1	4%
• IEPs and Individualized Family Service Plans (IFSPs)	20	77%	4	15%	2	8%	0	0%
<ul> <li>Program models</li> </ul>	10	38%	13	50%	3	12%	0	0%
<ul> <li>Research and best practices</li> </ul>	11	42%	11	42%	4	15%	0	0%
Communicating with diverse audiences	4	15%	11	42%	9	35%	2	89
<ul> <li>Technology</li> </ul>	16	62%	8	31%	2	8%	0	09
• Transitions	5	19%	11	42%	10	38%	0	0%

Table D5 Final Evaluation — Panel 1

	Stı	rongly					Str	ongly
	A	gree	e Agree		Disagree		Dis	agree
	N	%	N	%	N	%	N	%
• I understood the purpose of this study.	14	100%	0	0%	0	0%	0	0%
• The instructions and explanations provided by the facilitators were clear.	14	100%	0	0%	0	0%	0	0%
• The training in the standard setting method was adequate to give me the information I needed to complete my assignment.	14	100%	0	0%	0	0%	0	0%
• The explanation of how the recommended passing score is computed was clear.	13	93%	1	7%	0	0%	0	0%
• The opportunity for feedback and discussion between rounds was helpful.	14	100%	0	0%	0	0%	0	0%
<ul> <li>The process of making the standard setting judgments was easy to follow.</li> </ul>	13	93%	1	7%	0	0%	0	0%

**Table D5 (continued)** 

## Final Evaluation — Panel 1

How influential was each of the following factors in guiding your		Very Iuential		mewhat Iuential	Inf	Not fluential		
standard setting judgments?	N	<b>%</b>	N	%	N	%		
• The definition of the JQC	12	86%	2	14%	0	0%		
<ul> <li>The between-round discussions</li> </ul>	7	50%	6	43%	1	7%		
<ul> <li>The knowledge/skills required to answer each test question</li> </ul>	10	71%	4	29%	0	0%		
<ul> <li>The passing scores of other panel members</li> </ul>	2	14%	10	71%	2	14%		
<ul> <li>My own professional experience</li> </ul>	10	71%	4	29%	0	0%		
		Very nfortable		mewhat nfortable		mewhat omfortable		Very mfortable
	N	<b>%</b>	N	<b>%</b>	N	%	N	%
<ul> <li>Overall, how comfortable are you with the panel's recommended passing scores?</li> </ul>	7	50%	6	43%	0	0%	1	7%
	To	oo Low	Abo	out Right	To	oo High		
	N	%	N	%	N	%		
<ul> <li>Overall, the recommended passing score is:</li> </ul>	2	14%	12	86%	0	0%		

Table D6
Final Evaluation — Panel 2

	Strongly Agree		Strongly Agree Agree		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%
• I understood the purpose of this study.	12	100%	0	0%	0	0%	0	0%
• The instructions and explanations provided by the facilitators were clear.	12	100%	0	0%	0	0%	0	0%
• The training in the standard setting method was adequate to give me the information I needed to complete my assignment.	12	100%	0	0%	0	0%	0	0%
• The explanation of how the recommended passing score is computed was clear.	12	100%	0	0%	0	0%	0	0%
<ul> <li>The opportunity for feedback and discussion between rounds was helpful.</li> </ul>	12	100%	0	0%	0	0%	0	0%
<ul> <li>The process of making the standard setting judgments was easy to follow.</li> </ul>	12	100%	0	0%	0	0%	0	0%

Table D6 (continued)

## Final Evaluation — Panel 2

How influential was each of the following factors in guiding your		Very Iuential		mewhat Iuential	Inf	Not fluential		
standard setting judgments?	N	<b>%</b>	N	%	N	%		
• The definition of the JQC	12	100%	0	0%	0	0%		
• The between-round discussions	8	67%	4	33%	0	0%		
• The knowledge/skills required to answer each test question	12	100%	0	0%	0	0%		
• The passing scores of other panel members	3	25%	7	58%	2	17%		
• My own professional experience	10	83%	2	17%	0	0%		
		Very	So	mewhat	So	mewhat		Very
	Con	nfortable	Cor	nfortable	Unco	mfortable	Unco	mfortable
	N	<b>%</b>	N	%	N	%	N	%
Overall, how comfortable are you	7	58%	3	25%	2	17%	0	0%
with the panel's recommended passing scores?	/	38%	3	23%	2	1 / %	U	U%
	Te	oo Low	Abo	out Right	To	oo High		
	N	%	N	%	N	%		
• Overall, the recommended passing score is:	3	25%	9	75%	0	0%		

## APPENDIX A: SUPPLEMENTAL ENDORSEMENTS ADDED TO A VALID MISSISSIPPI LICENSE

#### Supplemental Endorsements Added By Praxis II Specialty Area Test

#### Supplemental Endorsements Added with 21 Hours of Coursework in Subject (Course work must have a grade of "C" or higher)

CODE	AREA	(Cou	ise work must have a grade of C
102	Art Education	<b>CODE</b>	<u>AREA</u>
181 105 185	Biology Education Business Chemistry	102 104	Art Education Bible
193 119	Economics English	105 119 122	Business Education English
130 134	French German	123 130 134	Drama (Performing Arts) French German
143 <b>208</b>	Health Education Hearing Disability K-12	135 136	Latin Italian
322 135 440	Home Economics Latin Library/Media	139 140	Russian Spanish
318 154	Marketing Mathematics	144 149 154	Physical Education Journalism Mathematics
901 902	Math 7-8 Language Arts 7-8	165 166	Music Education Instrumental Music Education Vocal
903 904	Social Studies 7-8 Science 7-8	171 181	Psychology Biology
166 144 182	Music Education Physical Education Physical Science	185 188	Chemistry General Science
189 192	Physics Social Studies	189 192 193	Physics Social Studies
140 221	Spanish Special Ed (Mild/Mod K-12)	196 302	Economics Speech Communications Agriculture
910 196 218	Special Ed (Mild/Mod K-12) Special Education Fundamental Subjects Speech Communications Visually Impaired K-12	318 322	Marketing Home Economics

#### Supplemental Endorsements Added by Completion of Approved Program (Institutional Program Verification required)

#### Added by Completion of MDE Approved Math & Science Partnerships

Added to Elementary or Special Education licenses only:

901 or 905	Math 7-8
904 or 908	Science 7-8

Career Technical Education Endorsements Added by Completion of CTE Training at Mississippi State University Research and Curriculum Unit (RCU)

(See Appendix E for list)

Advanced Placement Endorsements added by Completion of College Board Approved AP Training

(see Appendix E for list)

<b>CODE</b>	AREA
111 114	Computer Applications Driver Education
117	Elementary Education (4-6)
143	Health Education
150	Nursery-Grade 1 (N-1) Elementary Education (K-4)
152 174	Panding
177	Reading English as a Second Language Physical Science
182 193 207	Physical Science
193	Economics
207 208	Gifted
218	Hearing Impaired (K-12) Visually Impaired (K-12)
218 221 222	Visually Impaired (K-12) Mild/Moderate Disability (K-12)
222	Severe Disability (K-12)
222	added to 221 only Mild/Moderate Disability (K-8)
223	added to elementary only
224	added to elementary only Mild/Moderate Disability (7-12)
	added to secondary or special subject
214	license only
314	Vocational Guidance(added only to 436)
317	Cooperative Education(added to
	vocational license only)
328	Child Care (only added to 322 or 321—Home Economics) Aging Services (only added to 322 or 321-Home Economics) Clothing (only added to 322 or 321—Home Economics)
220	321—Home Economics)
329	321-Home Economics)
330	Clothing (only added to 322 or 321—
	Home Economics)
331	Food Production, Management, and
	Services (only added to 322 or 321— Home Economics)
440	Library/Media

## APPENDIX B: PRAXIS II EXAMINATION SCORES REQUIRED BY MISSISSIPPI:

SPECIALTY AREA TEST CODE	SCALED SCORE
Art Education (0134)	158
Audiology (0341)	170
Biology (0235)	150
Braille Proficiency (0281 <i>and</i> 0631)	158
Business Education (0101)	148
Chemistry (0245)	151
Early Childhood Education (Child Development Pre-K and K only) (0021)	165
Economics (0910)	490
Elementary Education (K-6) (0011 or 5011)	158
Elementary Education (4-6) (0014 or 5014) Alternate Route Only	153
Emotionally Disturbed/Behavior Disorders (0371)	150
English Language and Literature (0041)	157
French (5174)	153
German (5183)	154
Guidance and Counseling (0420)	580
Health Education (0550)	600
Hearing Disability (0271)	151
Home Economics/Family & Consumer Science (0121)	153
Latin (0600)	610
Library Media Specialist (0311)	143
Marketing (0561)	151
Mathematics (0061)	123
Middle Grade Math (0069) supplemental only	140
Middle Grade Language Arts (0049) supplemental only	145
Middle Grade Social Studies (0089) supplemental only	140
Middle Grade Science (0439) supplemental only	135
Music Education (0113)	139
Physical Education (0091)	138
Physical Science (0481)	147
Physics (0265)	139
School Leaders Licensure Assessment (1011)	169
School Psychologist (0401)	154
Social Studies (0081)	143
Spanish (5195)	160
Special Education (0354 or 5354)	142
Special Education Fundamental Subjects HQ (0511)	142
Speech Communication (0221)	134
Speech/Language Pathology (0330)	600
Technology Education (0051)	159
Visually Impaired (0281 and 0631)	154
APPENDIX C:	

#### APPENDIX C: PRAXIS I & PRAXIS II PLT SCORES

## PRAXIS I REQUIREMENTS FOR EDUCATOR LICENSURE PASSING SCORE

PRE-PROFESSIONAL SKILLS TEST	PASSING SCORE
Reading ( <b>0710 or 5710</b> )	170
Writing (0720 or 5720)	172
Mathematics (0730 or 5730)	169

## PRAXIS II REQUIREMENTS FOR EDUCATOR LICENSURE

(For Approved)	Teacher Educ	ation Program	Candidates only	v)

PRINCIPLES OF LEARNING AND TEACHING (PLT)	PASSING SCORE
Grade Level Pre-K – K ( <b>0621</b> )	157
Grade Level K-6 ( <b>0622</b> )	160
Grade Level 4-6 ( <b>0623</b> )	160
Grade Level 7-12 ( <b>0624</b> )	157

## **APPENDIX B:** PRAXIS II EXAMINATION SCORES REQUIRED BY MISSISSIPPI

SPECIALTY AREA TEST CODE	SCALED SCORE		
Art Education (0134)	158		
Audiology (0341)	170		
Biology (0235)	150		
Braille Proficiency (0281 <i>and</i> 0631)	158		
	138		
Business Education (0101)			
Chemistry (0245)	151		
Early Childhood Education (Child Development Pre-K and K only) (0021)	165		
Economics (0910)	490		
Elementary Education (K-6) (0011 or 5011)	158		
Elementary Education (4-6) (0014 or 5014) Alternate Route Only	153		
Emotionally Disturbed/Behavior Disorders (0371)	150		
English Language and Literature (0041)	157		
French (5174)	153		
German (5183)	154		
Guidance and Counseling (0420)	580		
Health Education (0550)	600		
Hearing Disability (0272)	160		
Home Economics/Family & Consumer Science (0121)	153		
Latin (0600)	610		
Library Media Specialist (0311)	143		
Marketing (0561)	151		
Mathematics (0061)	123		
Middle Grade Math (0069) supplemental only	140		
Middle Grade Language Arts (0049) supplemental only	145		
Middle Grade Social Studies (0089) supplemental only	140		
Middle Grade Science (0439) supplemental only	135		
Music Education (0113)	161		
Physical Education (0091)	138		
Physical Science (0481)	147		
Physics (0265)	139		
School Leaders Licensure Assessment (1011)	169		
School Psychologist (0401)	154		
Social Studies (0081)	143		
Spanish (5195)	160		
Special Education (0354 or 5354)	142		
Special Education Fundamental Subjects HQ (0511)	142		
Speech Communication (0221)	134		
Speech/Language Pathology (0330)	600		
Technology Education (0051)	159		
Visually Impaired (0281 and 0631)	154		
APPENDIX C:			

## PRAXIS I & PRAXIS II PLT SCORES

## PRAXIS I REQUIREMENTS FOR EDUCATOR LICENSURE

PRE-PROFESSIONAL SKILLS TEST	PASSING SCORE
Reading ( <b>0710 or 5710</b> )	170
Writing (0720 or 5720)	172
Mathematics (0730 or 5730)	169

## PRAXIS II REQUIREMENTS FOR EDUCATOR LICENSURE (For Approved Teacher Education Program Candidates only)

PRINCIPLES OF LEARNING AND TEACHING (PLT)	PASSING SCORE
Grade Level Pre-K – K ( <b>0621</b> )	157
Grade Level K-6 ( <b>0622</b> )	160
Grade Level 4-6 ( <b>0623</b> )	160
Grade Level 7-12 ( <b>0624</b> )	157