

Virginia Board of Education Agenda Item



Agenda Item: J

Date: February 27, 2014

Title	First Review of Recommendation of the Advisory Board on Teacher Education and Licensure (ABTEL) for a Passing Score for the Praxis II Health and Physical Education: Content Knowledge (5857) Test		
Presenter	Mrs. Patty S. Pitts, Assistant Superintendent, Division of Teacher Education and Licensure		
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Purpose of Presentation:

Action required by state or federal law or regulation.

Previous Review or Action:

No previous review or action.

Action Requested:

Action will be requested at a future meeting. Specify anticipated date below:

Date: March 27, 2014

Alignment with Board of Education Goals: Please indicate (X) all that apply:

	Goal 1: Accountability for Student Learning
	Goal 2: Rigorous Standards to Promote College and Career Readiness
	Goal 3: Expanded Opportunities to Learn
	Goal 4: Nurturing Young Learners
X	Goal 5: Highly Qualified and Effective Educators
	Goal 6: Sound Policies for Student Success
	Goal 7: Safe and Secure Schools
	Other Priority or Initiative. Specify:

Background Information and Statutory Authority:

Goal 5: The approval of passing scores on the professional assessments supports the goal of highly qualified and effective educators in Virginia’s classrooms and schools.

Section 22.1-298.1. **Regulations governing licensure** of the *Code of Virginia* requires that the Board of Education’s regulations “shall include requirements that a person seeking initial licensure: 1. Complete professional assessments as prescribed by the Board of Education;....”

Currently, the Virginia Board of Education requires the following licensure assessments:

- Virginia Communication and Literacy Assessment (VCLA)

- Praxis II: Specialty Area Tests
- Reading for Virginia Educators (RVE)
- School Leaders Licensure Assessment (SLLA)

The Board of Education prescribes the Praxis II (subject area content) tests as a professional teacher's assessment requirement for initial licensure in Virginia. The Praxis II test currently required for individuals seeking an initial license with an endorsement in Health and Physical Education preK-12 is the Praxis II Health and Physical Education: Content Knowledge (0856/5856) test. A Praxis II test for this endorsement has been required in Virginia since July 1, 1999.

The Educational Testing Service (ETS) that administers the Praxis II has developed the revised Health and Physical Education: Content Knowledge (5857) test. The purpose of the test is to assess whether the entry-level health and physical education teacher has the content knowledge and skills believed necessary for competent practice. Test preparation resources and materials, including study guides and practice tests, are available on the [ETS Test Preparation Web site](#).

Summary of Important Issues:

A multistate standard setting study was conducted by ETS in November 2013 for the Praxis II Health and Physical Education: Content Knowledge (5857) test. Participants from 11 states, Washington, D. C., and Guam served on the multistate study panel. Virginia was represented by two Virginia educators who were nominated by Virginia educational agencies. A detailed summary of the study, *Multistate Standard Setting Technical Report – Praxis II Health and Physical Education (5857)*, is attached (Appendix A) and includes participants, methodology, and recommendations. The purposes of the study were to (a) recommend the minimum passing score for the Health and Physical Education: Content Knowledge (5857) and (b) confirm the importance of the Praxis content specifications for entry-level health and physical education teachers. To pass the Health and Physical Education: Content Knowledge (5857) test, a candidate must meet or exceed the passing score established by the Virginia Board of Education.

The Praxis *Test at a Glance* document (Appendix B) describes the purpose and structure of the assessment. In brief, the purpose of the test is to assess whether the entry-level health and physical education teacher has the content knowledge and skills believed necessary for competent practice. Two National Advisory Committees of Health and Physical Education teachers and college faculty defined the content of the assessment, and national surveys of teachers and college faculty confirmed the content.

The Health and Physical Education: Content Knowledge (5857) test contains 130 selected-response items covering five content areas: Health Education as a Discipline/Health Instruction (approximately 26 items); Health Education Content (approximately 32 items); Content Knowledge and Student Growth and Development (approximately 22 items); Management, Motivation, and Communication/Collaboration, Reflection, and Technology (approximately 29 items); and Planning, Instruction, and Student Assessment (approximately 21 items). The reporting scale for the Praxis II Health and Physical Education: Content Knowledge (5857) test ranges from 100 to 200 scaled-score points.

Multistate Standard Setting Study

The multistate standard-setting study is detailed in Appendix B. The multistate panel recommended a passing score of 74 out of a possible 110 raw-score points. The scaled score associated with a raw score of 74 is 160 on a 100 to 200 scale.

The multistate standard study provides the estimated conditional standard error or measurement (CSEM). The CSEM is a statistical phenomenon and is unrelated to the accuracy of scoring. All test results are subject to the standard error of measurement. If a test taker were to take the same test repeatedly, with no change in his level of knowledge and preparation, it is possible that some of the resulting scores would be slightly higher or slightly lower than the scores that precisely reflects the test taker's actual level of knowledge or ability. The difference between a test taker's actual score and his highest or lowest hypothetical score is known as the standard error of measurement.

The CSEM for the recommended passing scores for multistate standard-setting study are shown in the chart below. Note that consistent with the recommended passing score, the passing scores at the different CSEMs have been rounded to the next highest number, and the rounded values are converted to scaled scores.

Conditional Standard Error of Measurement Summaries Health and Physical Education: Content Knowledge (5857)

Passing Scores Within 1 and 2 CSEMs of the Recommended Passing Score – Multistate Panel

Recommended passing score (CSEM)	Scale score equivalent
74 (4.94)	160
- 2 CSEMs	149
-1 CSEM	155
+1 CSEM	167
+ 2 CSEMs	173

At the January 27, 2014, meeting of the Advisory Board on Teacher Education and Licensure the Advisory Board recommended that the Virginia Board of Education approve a pass score of 160 (74 raw-score points) recommended by the multistate standard setting panel for the Praxis II Health and Physical Education: Content Knowledge (5857) test.

Impact on Fiscal and Human Resources:

Costs associated with the administration of Praxis II tests will be incurred by the Educational Testing Service. Prospective teachers are required to pay test fees.

Timetable for Further Review/Action:

This item will be presented to the Board of Education for final review at the March 27, 2014, meeting.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education accept for first review the Advisory Board of Teacher Education and Licensure's recommendation that the Virginia Board of Education approve a pass score of 160 (74 raw-score points) for the Praxis II Health and Physical Education: Content Knowledge (5857) test.

Appendices

Appendix A: Multistate Standard-Setting Technical Report – Praxis II Health and Physical Education: Content Knowledge (5857) – December 2013

Appendix B: Test at a Glance – Praxis II Health and Physical Education: Content Knowledge (5857)

Appendix A

Multistate Standard-Setting Technical Report Praxis II Health and Physical Education: Content Knowledge (5857) December 2013



Listening. Learning. Leading.

Multistate Standard-Setting Technical Report

**PRAXIS™ HEALTH AND PHYSICAL EDUCATION: CONTENT
KNOWLEDGE (5857)**

Licensure and Credentialing Research

ETS

Princeton, New Jersey

December 2013

EXECUTIVE SUMMARY

To support the decision-making process of education agencies establishing a passing score (cut score) for the Praxis™ Health and Physical Education: Content Knowledge (5857) test, research staff from Educational Testing Service (ETS) designed and conducted a multistate standard-setting study.

PARTICIPATING STATES

Panelists from 11 states, Washington, DC, and Guam were recommended by their respective education agencies. The education agencies recommended panelists with (a) experience as either health and physical education teachers or college faculty who prepare health and physical education teachers and (b) familiarity with the knowledge and skills required of beginning health and physical education teachers.

RECOMMENDED PASSING SCORE

ETS provides a recommended passing score from the multistate standard-setting study to help education agencies determine an appropriate operational passing score. For the Praxis Health and Physical Education: Content Knowledge test, the recommended passing score is 74 out of a possible 110 raw-score points. The scaled score associated with a raw score of 74 is 160 on a 100–200 scale.

To support the decision-making process for education agencies establishing a passing score (cut score) for the Praxis™ Health and Physical Education: Content Knowledge (5857) test, research staff from ETS designed and conducted a multistate standard-setting study in November 2013 in Princeton, New Jersey. Education agencies¹ recommended panelists with (a) experience as either health and physical education teachers or college faculty who prepare health and physical education teachers and (b) familiarity with the knowledge and skills required of beginning health and physical education teachers. Eleven states, Washington, DC, and Guam (Table 1) were represented by 17 panelists. (See Appendix A for the names and affiliations of the panelists.)

Table 1
Participating Jurisdictions and Number of Panelists

Arkansas (2 panelists)	North Carolina (1 panelist)
Delaware (2 panelists)	Pennsylvania (1 panelist)
Guam (1 panelist)	Tennessee (1 panelist)
Kentucky (1 panelist)	Vermont (1 panelist)
Louisiana (1 panelist)	Virginia (2 panelists)
Nebraska (1 panelist)	Washington, DC (2 panelists)
Nevada (1 panelist)	

The following technical report contains 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.

ETS provides a recommended passing score from the multistate standard-setting study to education agencies. In each jurisdiction, the department of education, the board of education, or a designated educator licensure board is responsible for establishing the operational passing score in accordance with applicable regulations. This study provides a recommended passing score, which represents the combined judgments of a group of experienced educators. Each jurisdiction may want to consider the recommended passing score but also other sources of information when setting the final Praxis Health and Physical Education: Content Knowledge passing score (see Geisinger & McCormick, 2010). A jurisdiction 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

¹ States and jurisdictions that currently use Praxis were invited to participate in the multistate standard-setting study.

no *correct* decision; the appropriateness of any adjustment may only be evaluated in terms of its meeting the jurisdiction's needs.

Two sources of information to consider when setting the passing score are the standard error of measurement (SEM) and the standard error of judgment (SEJ). The former addresses the reliability of the Praxis Health and Physical Education: Content Knowledge test score and the latter, the reliability of panelists' passing-score recommendation. The SEM allows a jurisdiction to recognize that any test score on any standardized test—including a Praxis Health and Physical Education: Content Knowledge test score—is not 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 a jurisdiction to gauge the likelihood that the recommended passing score from the current panel 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 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 jurisdiction should consider the likelihood of classification errors. 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 that 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 decision 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 jurisdiction needs to consider which decision error is more important to minimize.

OVERVIEW OF THE PRAXIS HEALTH AND PHYSICAL EDUCATION: CONTENT KNOWLEDGE TEST

The Praxis Health and Physical Education: Content Knowledge *Test at a Glance* document (ETS, in press) describes the purpose and structure of the test. In brief, the test measures whether entry-level health and physical education teachers have the knowledge/skills believed necessary for competent professional practice.

The two-hour-and-ten-minute test contains 130 selected-response items² covering five content areas: *Health Education as a Discipline/Health Instruction* (approximately 26 items), *Health Education Content* (approximately 32 items), *Content Knowledge and Student Growth and Development* (approximately 22 items), *Management, Motivation, and Communication/Collaboration, Reflection, and Technology* (approximately 29 items), and *Planning, Instruction, and Student Assessment* (approximately 21 items).³ The reporting scale for the Praxis Health and Physical Education: Content Knowledge test ranges from 100 to 200 scaled-score points.

PROCESSES AND METHODS

The design of the standard-setting study included an expert panel. Before the study, panelists received an email explaining the purpose of the standard-setting study and requesting that they review the content specifications for the test. This review helped 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 described the test, provided an overview of standard setting, and presented the agenda for the study. Appendix B shows the agenda for the panel meeting.

² Twenty of the 130 selected-response items are pretest items and do not contribute to a candidate's score.

³ The number of items for each content area may vary slightly from form to form of the test.

REVIEWING THE TEST

The standard-setting panelists first reviewed the test and then discussed it. This discussion helped bring the panelists to a shared understanding of what the test does and does not cover, which serves to reduce potential judgment errors later in the standard-setting process.

The test discussion covered the major content areas being addressed by the test. Panelists were asked to remark on any content areas that would be particularly challenging for entry-level teachers or areas that address content particularly important for entry-level teachers.

DEFINING THE TARGET CANDIDATE

Following the review of the test, panelists described the target candidate. The *target candidate description* plays a central role in standard setting (Perie, 2008); the goal of the standard-setting process is to identify the test score that aligns with this description.

The panel created a description of the target candidate—the knowledge/skills that differentiate a *just* from a *not quite* qualified candidate. To create this description, the panel first split into smaller groups to consider the target candidate. The full panel then reconvened and, through whole-group discussion, determined the description of the target candidate to use for the remainder of the study.

The written description of the target candidate summarized the panel discussion in a bulleted format. The description was not intended to describe all the knowledge and skills of the target candidate but only highlight those that differentiate a *just* qualified candidate from a *not quite* qualified candidate. The written description was distributed to panelists to use during later phases of the study (see Appendix C for the target candidate description).

PANELISTS' JUDGMENTS

The standard-setting process for the Praxis Health and Physical Education: Content Knowledge test was a probability-based Modified Angoff method (Brandon, 2004; Hambleton & Pitoniak, 2006). In this study, each panelist judged each item on the likelihood (probability or chance) that the target candidate would answer the item 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 the target candidate would answer the item correctly because the item is difficult for the target candidate. The higher the value, the more likely it is that the target candidate would answer the item correctly.

Panelists were asked to approach the judgment process in two stages. First, they reviewed both the description of the target candidate and the item and decided if, overall, the item would be difficult for the target candidate, easy for the target candidate or moderately difficult/easy. The facilitator encouraged the panelists to consider the following rules of thumb to guide their decision:

- Difficult items for the target candidate are in the 0 to .30 range.
- Moderately difficult/easy items for the target candidate are in the .40 to .60 range.
- Easy items for the target candidate are in the .70 to 1 range.

Next, panelists decided how to refine their judgment within the range. For example, if a panelist thought that an item would be easy for the target candidate, the initial decision located the item in the .70 to 1 range. The second decision for the panelist was to decide if the likelihood of answering it correctly is .70, .80, .90, .95 or 1.

After the training, panelists made practice judgments and discussed those judgments and their rationale. All panelists completed a post-training survey to confirm that they had received adequate training and felt prepared to continue; the standard-setting process continued only if all panelists confirmed their readiness.

Following this first round of judgments (*Round 1*), item-level feedback was provided to the panel. The panelists' judgments were displayed for each item and summarized across panelists. Items were highlighted to show when panelists converged in their judgments (at least two-thirds of the panelists located an item in the same difficulty range) or diverged in their judgments.

The panelists discussed their item-level judgments. These discussions helped panelists maintain a shared understanding of the knowledge/skills of the target candidate and helped to clarify aspects of items that might not have been clear to all panelists during the Round 1 judgments. The purpose of the discussion was not to encourage panelists to conform to another's judgment, but to understand the different relevant perspectives among the panelists.

In Round 2, panelists discussed their Round 1 judgments and were encouraged by the facilitator (a) to share the rationales for their judgments and (b) to consider their judgments in light of the rationales provided by the other panelists. Panelists recorded their Round 2 judgments only for items when they wished to change a Round 1 judgment. Panelists final judgments for the study, therefore, consist of their Round 1 judgments and any adjusted judgments made during Round 2.

RESULTS

EXPERT PANELS

Table 2 presents a summary of the panelists' demographic information. The panel included 17 educators representing 11 states, Washington, DC, and Guam . (See Appendix A for a listing of panelists.) Ten panelists were teachers, five were college faculty, and two were administrators or department heads. All of the faculty members' job responsibilities included the training of health and physical education teachers.

Table 2
Panel Member Demographics

	<i>N</i>	<i>%</i>
Current position		
Teacher	10	59%
Administrator/Department Head	2	12%
College Faculty	5	29%
Race		
White	14	82%
Black or African American	2	12%
Native Hawaiian or Other Pacific Islander	1	6%
Gender		
Female	14	82%
Male	3	18%
Are you currently certified to teach this subject in your state?		
Yes	15	88%
No	2	12%
Are you currently teaching this subject in your state?		
Yes	16	94%
No	1	6%
Are you currently supervising or mentoring other teachers of this subject?		
Yes	9	53%
No	8	47%
At what K–12 grade level are you currently teaching this subject?		
Elementary (K–5 or K–6)	5	29%
Middle School (6–8 or 7–9)	2	12%
High School (9–12 or 10–12)	3	18%
Not currently teaching at the K–12 level	7	41%

Table 2 (continued)***Panel Member Demographics***

	<i>N</i>	<i>%</i>
Including this year, how many years of experience do you have teaching this subject?		
3 years or less	0	0%
4–7 years	9	53%
8–11 years	3	18%
12–15 years	1	6%
16 years or more	4	24%
Which best describes the location of your K–12 school?		
Urban	5	29%
Suburban	4	24%
Rural	3	18%
Not currently working at the K–12 level	5	29%
If you are college faculty, are you currently involved in the training/preparation of teacher candidates in this subject?		
Yes	5	29%
No	0	0%
Not college faculty	12	71%

STANDARD-SETTING JUDGMENTS

Table 3 summarizes the standard-setting judgments of panelists. The table shows the passing scores—the number of raw points needed to pass the test—recommended by each panelist.

Table 3 also includes estimate of the measurement error associated with the judgments: the standard deviation of the mean and the standard error of judgment (SEJ). The SEJ is one way of estimating the reliability or consistency of a panel’s standard-setting judgments.⁴ It indicates how likely it would be for several 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.

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

⁴ 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, 2013).

decrease — indicating convergence among the panelists’ judgments — was observed (see Table 3). The Round 2 average score is the panel’s recommended passing score.

Table 3
Passing Score Summary by Round of Judgments

Panelist	Round 1	Round 2
1	77.70	75.10
2	81.80	81.20
3	66.20	66.00
4	70.00	69.60
5	66.85	67.55
6	70.30	70.45
7	73.65	77.30
8	66.15	67.65
9	67.60	69.10
10	66.20	66.50
11	72.90	70.90
12	85.00	84.40
13	67.60	67.60
14	81.70	82.40
15	70.35	71.15
16	72.90	72.40
17	84.75	82.60
Average	73.04	73.05
Lowest	66.15	66.00
Highest	85.00	84.40
SD	6.69	6.23
SEJ	1.62	1.51

The panel’s passing score recommendation for the Praxis Health and Physical Education: Content Knowledge test is 73.05 (out of a possible 110 raw-score points). The value was rounded to the next highest whole number, 74, to determine the functional recommended passing score. The scaled score associated with 74 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 scores associated with one and two CSEMs above and below the recommended passing score are provided. The conditional standard error of measurement provided is an estimate.

Table 4***Passing Scores Within 1 and 2 CSEMs of the Recommended Passing Score⁵***

Recommended passing score (CSEM)		Scale score equivalent
	74 (4.94)	160
-2 CSEMs	65	149
-1 CSEM	70	155
+ 1 CSEM	79	167
+ 2 CSEMs	84	173

Note. CSEM = conditional standard error of measurement.

FINAL EVALUATIONS

The panelists completed an evaluation at the conclusion of their standard-setting study. The evaluation asked the panelists to provide feedback about the quality of the standard-setting implementation and the factors that influenced their decisions. The responses to the evaluation provided evidence of the validity of the standard-setting process, and, as a result, evidence of the reasonableness of the recommended passing score.

Panelists were also shown the panel's recommended passing score and asked (a) how comfortable they are with the recommended passing score and (b) if they think the score was too high, too low, or about right. A summary of the final evaluation results is presented in Appendix D.

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

Fifteen of the 17 panelists indicated they were at least *somewhat comfortable* with the passing score they recommended, one panelist was *somewhat uncomfortable*, and one was *very uncomfortable*. Fifteen of the 17 panelists indicated the recommended passing score was *about right* with the remaining two panelists indicating that the passing score was *too low*.

⁵ 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.

SUMMARY

To support the decision-making process for education agencies establishing a passing score (cut score) for the Praxis Health and Physical Education: Content Knowledge test, research staff from ETS designed and conducted a multistate standard-setting study.

ETS provides a recommended passing score from the multistate standard-setting study to help education agencies determine an appropriate operational passing score. For the Praxis Health and Physical Education: Content Knowledge test, the recommended passing score is 74 out of a possible 110 raw-score points. The scaled score associated with a raw score of 74 is 160 on a 100–200 scale.

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 A

PANELISTS' NAMES & AFFILIATIONS

Participating Panelists With Affiliations

<u>Panelist</u>	<u>Affiliation</u>
Lacey Batt	Westside Community Schools (NE)
Kimberly Blackwell	Hampton University (VA)
Christy Buchanan	Harrisburg School District-Harrisburg Elementary School (AR)
Bettyann Creighton	School District of Philadelphia (PA)
Jasa Ellis	Morehead City Middle School (NC)
Mary Beth French	Christina School District (DE)
Cody Hinton	University of Louisville (KY)
John Hoover	Capital School District (DE)
Caroline Hunt	District of Columbia Public Schools (DC)
Deborah K. Johnson	Howard University (DC)
Shannon La Neve	Clark County School District (NV)
Cathy Lirgg	University of Arkansas (AR)
Juliet Moore	John F. Kennedy High School and University of Guam (GU)
Micah Nicholson	Northwestern State University Elementary Lab School (LA)
Katherine P. Pebworth	Lincoln Memorial University (TN)
Terry Seal	Frederick County Public Schools (VA)
Julie Sloan	Mt. Mansfield Union High School (VT)

APPENDIX B
STUDY AGENDA

AGENDA

Praxis Health and Physical Education: Content Knowledge (5857) Standard-Setting Study

Day 1

Welcome and Introduction

Overview of Standard Setting and the Praxis Health and Physical Education: Content Knowledge Test

Review the Praxis Health and Physical Education: Content Knowledge Test

Discuss the Praxis Health and Physical Education: Content Knowledge Test

Lunch

Define the Knowledge/Skills of a Target Candidate

Break

Standard-Setting Training

Round 1 Standard Setting Judgments

Collect Materials; End of Day 1

Day 2

Overview of Day 2

Round 1 Feedback and Round 2 Judgments

Lunch

Feedback on Round 2 Recommended Cut Score

Complete Final Evaluation

Collect Materials; End of Study

APPENDIX C

TARGET CANDIDATE DESCRIPTION

Description of the Target Candidate⁶

A target candidate ...

Health Education

I. Health Education as a Discipline/Health Instruction

A. Health Education as a Discipline

1. Knows how to access information from valid and reliable databases regarding legal and ethical practices, professional organizations, and effective communication
2. Knows stages of growth and development as it relates to appropriate instruction

B. Health Instruction

1. Knows how to assess student learning and the individual learning needs of diverse groups through the reflective teaching process
2. Understands how to plan for instruction while using performance-based objectives aligned to national, state, and district standards
3. Knows how to implement and manage instruction while using performance-based objectives aligned to national, state, and district standards

II. Health Education Content

A. Health Promotion and Prevention of Injury and Disease

1. Understands positive and negative behaviors that can affect health or safety and ways to reduce and prevent health risks through nutrition, stress management, and coping skills
2. Knows care for common injuries and sudden illnesses (e.g., first aid, CPR, AED use, and 911 and emergency services)
3. Understands basic concepts of physical fitness and health-related fitness (e.g., body composition, cardiorespiratory endurance, flexibility, muscular strength and endurance, and FITT) in relation to anatomy, physiology, and body system interrelationships
4. Knows prevention practices, treatment, and management of communicable and non-communicable diseases (e.g., infectious, congenital, hereditary, and lifestyle)
5. Knows the basic effects of substance use and abuse (e.g., physiological, psychological, legal, and societal)

B. Healthy Relationships/Mental and Emotional Health

1. Understands skills that promote healthy interactions (e.g., interpersonal communication, conflict resolution, assertiveness, and refusal skills)
2. Knows concepts and issues related to human sexuality
3. Can identify symptoms, causes, and effects of common mental and emotional health issues, prevention strategies, and support services

⁶ Description of the target candidate focuses on the knowledge/skills that differentiate a *just* from a *not quite* qualified candidate.

Description of the Target Candidate⁷ (continued)

A target candidate ...

C. Community Health and Advocacy

1. Knows valid sources of health information, products, and services as it relates to consumer health issues (health literacy)
2. Can identify opportunities available for health education advocacy

Physical Education

III. Content Knowledge and Student Growth and Development

A. Core Concepts

1. Knows how the basic sciences (e.g., exercise physiology, anatomy and physiology, biomechanics, kinesiology, etc.) relate to movement concepts and motor skills
2. Knows the skills, rules, strategies, sequences and performance assessment techniques for a variety of sports, physical activities, and physical fitness
3. Knows liability and legal considerations pertaining to the use of equipment, class organization, supervision, and program selection

B. Student Growth and Development

1. Understands sequential and developmentally appropriate practices to refine motor skills and movement patterns through monitoring individual performance

IV. Management, Motivation, and Communication/Collaboration, Reflection, and Technology

A. Management and Motivation

1. Understands basic classroom management practices and psychological and social factors as it relates to participation, performance, and positive relationships to promote an effective learning environment

B. Communication

1. Understands verbal and nonverbal communication of classroom management and instructional information in a variety of settings
2. Knows specific and appropriate instructional feedback in skill acquisition, student learning, and motivation

C. Collaboration

1. Knows to collaborate and integrate knowledge and skills from multiple subject areas into physical education

D. Reflection

1. Knows how to use available resources to develop and grow as a reflective professional to facilitate change in teacher performance, student learning, instructional goals, and decisions

E. Technology

1. Knows appropriate use of technology to instruct, assess and develop student learning activities

⁷ Description of the target candidate focuses on the knowledge/skills that differentiate a *just* from a *not quite* qualified candidate.

Description of the Target Candidate⁸ (continued)

A target candidate ...

V. Planning, Instruction, and Student Assessment

A. Planning and Instruction

1. Understands the development of sequential units and lesson plans based on standards, program and instructional goals
2. Understands appropriate instructional strategies (e.g., cues, feedback, demonstrations) based on student needs, equipment, facilities and safety concerns

B. Student Assessment

1. Understands appropriate use of assessment methods (e.g., formative, summative, authentic, portfolio) for all students including individuals with disabilities

⁸ Description of the target candidate focuses on the knowledge/skills that differentiate a *just* from a *not quite* qualified candidate.

APPENDIX D

FINAL EVALUATION RESULTS

Table D1***Final Evaluation***

	Strongly agree		Agree		Disagree		Strongly disagree	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
• I understood the purpose of this study.	17	100%	0	0%	0	0%	0	0%
• The instructions and explanations provided by the facilitator were clear.	15	88%	2	12%	0	0%	0	0%
• The training in the standard-setting method was adequate to give me the information I needed to complete my assignment.	16	94%	1	6%	0	0%	0	0%
• The explanation of how the recommended passing score is computed was clear.	16	94%	1	6%	0	0%	0	0%
• The opportunity for feedback and discussion between rounds was helpful.	17	100%	0	0%	0	0%	0	0%
• The process of making the standard-setting judgments was easy to follow.	14	82%	3	18%	0	0%	0	0%

Table D1 (continued)

Final Evaluation

How influential was each of the following factors in guiding your standard-setting judgments?	Very influential		Somewhat influential		Not influential			
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%		
• The description of the target candidate	14	82%	3	18%	0	0%		
• The between-round discussions	10	59%	7	41%	0	0%		
• The knowledge/skills required to answer each test item	13	76%	4	24%	0	0%		
• The passing scores of other panel members	5	29%	11	65%	1	6%		
• My own professional experience	10	59%	6	35%	1	6%		
	Very comfortable		Somewhat comfortable		Somewhat uncomfortable		Very uncomfortable	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
• Overall, how comfortable are you with the panel's recommended passing score?	12	71%	3	18%	1	6%	1	6%
	Too low		About right		Too high			
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%		
• Overall, the recommended passing score is:	2	12%	15	88%	0	0%		

Appendix B

Test at a Glance Praxis II Health and Physical Education: Content Knowledge (5857)

Health and Physical Education: Content Knowledge (5857)

Test at a Glance

Test Name	Health and Physical Education: Content Knowledge		
Test Code	5857		
Time	130 minutes		
Number of Questions	130		
Format	Selected-response questions		
	Content Categories	Approximate Number of Questions	Approximate Percentage of Examination
	<u>Health Education</u>		
	I. Health Education as a Discipline/Health Instruction	26	20%
	II. Health Education Content	32	25%
	<u>Physical Education</u>		
	III. Content Knowledge and Student Growth and Development	22	17%
	IV. Management, Motivation, and Communication/Collaboration, Reflection, and Technology	29	22%
V. Planning, Instruction, and Student Assessment	21	16%	

About This Test

The Content Knowledge test in Health and Physical Education is designed for prospective teachers of health and physical education. Examinees typically have completed a bachelor's degree program in health and physical education, health and exercise science, physical education and wellness, or an equivalent degree or have prepared themselves through an alternative certification program. Fifty-eight of the 130 test questions focus on studies of health, and 72 questions focus on studies of and experiences in physical education.

This test may contain some questions that will not count toward your score.

Topics Covered

Representative descriptions of topics covered in each category are provided below.

Health Education

I. Health Education as a Discipline/Health Instruction

A. Health Education as a Discipline

1. Major health behavior theories (e.g., stages of change, behavioral change theory, transtheoretical model, and health belief model)
2. Health-related data using appropriate research methods (e.g., surveys, observations, and questionnaires and using data to draw conclusions)
3. Valid and reliable data sources and databases (e.g., YRBSS, NIH, CDC, AAHPERD, AMA, WHO, and peer-reviewed journals)
4. Tools for conducting an assessment of school health needs (e.g., comprehensive school health plan, surveys, needs assessment, and coordinated school health program)
5. Curricular and extracurricular programs for student health needs
6. Appropriate educational materials from professional organizations, agencies, and associations that meet the needs of diverse audiences
7. Resources involved in a coordinated approach to school health
8. Effective communication with school staff, students, parents, and community (e.g., listening, mediating, and negotiating)
9. Professional, legal, and ethical practices regarding sensitive issues (e.g., privacy laws, confidentiality policy, permission forms, and responsibility to report)
10. Models for responsible decision making
11. Concepts of character education
12. Physical growth and development
13. Continuing education and professional development as a health educator

B. Health Instruction

1. Assessing learning needs for individuals and diverse groups (e.g., identify developmentally appropriate instruction, cognitive abilities, multiple learning styles, and purposes of pretesting)
2. Sequential instruction planning using performance-based objectives (e.g., identify measurable objectives, performance indicators, elements of effective lesson and unit plans and apply scope and sequence)
3. Aligning curriculum with national, state, and district standards
4. Effective methods, strategies, and techniques to implement instruction (e.g., direct instruction, cooperative learning, guided discovery, brainstorming, and role-playing)
5. Reflective teaching process
6. Assessing student learning (e.g., formative assessments, summative assessments, and rubrics)
7. Classroom management strategies

II. Health Education Content

A. Health Promotion and Prevention of Injury and Disease

1. Disease etiology, prevention practices, treatment, and management
2. Communicable and noncommunicable diseases (e.g., infectious, congenital, hereditary, and lifestyle)
3. Research on practices that prevent chronic and communicable diseases
4. Goal setting and decision making for healthy lifestyles
5. Concepts of physical fitness and health-related fitness (e.g., body composition, cardiorespiratory endurance, flexibility, muscular strength and endurance, and FITT)
6. Nutrition
7. Stress management and coping skills

8. Reducing and preventing health risks
9. Anatomy, physiology, and body system interrelationships
10. Personal hygiene
11. Behaviors that can compromise health or safety
12. Relationship between lifestyle choices and health outcomes
13. Effects of substance use and abuse (e.g., physiological, psychological, legal, and societal)
14. Care for injuries and sudden illnesses (e.g., first aid, CPR, AED use, and 911 and emergency services)

B. Healthy Relationships/Mental and Emotional Health

1. Factors affecting healthy and unhealthy relationships (e.g., socioeconomics, family dynamics, personality traits, environment, culture, and tolerance/acceptance)
2. Effect of decision-making skills on relationships
3. Psychosocial development throughout life stages (e.g., intellect, relationships, independence, and emotions)
4. Interpersonal communication (e.g., listening, feedback, verbal and nonverbal communication, and group dynamics)
5. Skills that promote healthy interactions (e.g., conflict resolution, assertiveness, and refusal skills)
6. Concepts and issues related to human sexuality (e.g., sexual maturation, sexual identity, media messages, sexual behavior and attitudes, pregnancy and childbirth, sexual orientation, and contraception)
7. Causes, consequences, and prevention of different types of abuse and violence
8. Causes and consequences of various mental and emotional health issues and prevention strategies

C. Community Health and Advocacy

1. The concept of individual responsibility to society and the environment

2. Laws and regulations governing health and safety (e.g., disease reporting, immunizations, infectious disease control, and consumer safety)
3. Environmental health issues (e.g., reduce/reuse/recycle, pollution, energy conservation, and sustainable living)
4. Consumer health issues (e.g., health myths and quackery, affordability, access, health trends, health literacy, and personal health-care management)
5. Valid sources of health information, products, and services
6. Health-related careers
7. Community health agencies available for assistance and referral (e.g., American Red Cross and other national agencies, Planned Parenthood, health departments, social service agencies, school-based health clinics)
8. Factors that influence decision making in health policies (e.g., available resources and demographic, political, and economic factors)
9. Factors that influence the content of school health education (e.g., content standards and demographic, political, and media factors)
10. Methods for delivering appropriate health-promoting messages (e.g., verbal, electronic, print, and community and school events)
11. Opportunities available for health education advocacy (e.g., health fairs, assemblies, professional meetings and conferences, community and school events)
12. Role of the health educator as a liaison between school staff, students, parents, and the community

Physical Education

III. Content Knowledge and Student Growth and Development

A. Core Concepts

1. Terminology, principles, concepts, and applications of the basic sciences as related to motor skills and movement

- activities (e.g., anatomy and physiology, exercise physiology, biomechanics and kinesiology, motor development, and motor learning)
2. Principles of biomechanics and kinesiology as they relate to motor skills and movement patterns (e.g., summation of forces, center of gravity, force-speed relations, and torque)
 3. Movement concepts (e.g., body awareness, spatial awareness, effort, relationship)
 4. Exercise physiology (e.g., components of health-related fitness; components of skill-related fitness; fitness guidelines, such as frequency, intensity, time/duration, and type/mode; principles of exercise, such as specificity, overload, and progression; roles of body systems in exercise; short- and long-term effects of physical training; nutrition as related to exercise; fitness; metabolic response to exercise)
 5. Anatomy and physiology (e.g., skeletal, muscular, nervous, circulatory, and respiratory systems)
 6. Current and historical trends, issues, and developments in physical education (e.g., laws, teaching methods, theories, concepts, and techniques)
 7. The rules, strategies, skills, techniques, and concepts associated with a variety of movement activities and games across the age and grade spectra (emphasis primarily on basketball, soccer, swimming, tennis, track and field, and volleyball, with possible questions based on other sports and activities commonly used in physical education settings)
 8. Liability and legal considerations pertaining to the use of equipment, class organization, supervision, and program selection
 9. Effects of substance abuse on student performance, health, and behavior

B. Student Growth and Development

1. Sequential and developmentally appropriate learning and practice opportunities based on growth and motor development stages, individual

- characteristics and individual needs of students, learning environment, and task
2. Monitoring of individual performance and group performance in order to design safe instruction that meets students' developmental needs in the psychomotor, cognitive, and affective domains
 3. Developmental readiness to learn and refine motor skills and movement patterns (e.g., biological, psychological, sociological, experiential, and environmental)
 4. Perception in motor development
 5. Appropriate and effective instruction based on students' cultures and ethnicities, personal values, family structures, home environments, and community values
 6. Use of appropriate professional support services and resources to meet student needs

IV. Management, Motivation, and Communication/Collaboration, Reflection, and Technology

A. Management and Motivation

1. Principles of classroom management practices that create effective learning experiences in physical education settings
2. Psychological and social factors that affect individual learning and group learning, participation, cooperation, and performance in physical education settings
3. Organization, allocation, and management of resources to provide active and equitable learning experiences (e.g., time, space, equipment, activities, teacher attention, students)
4. Motivation of students to participate in physical activities both in school and outside of school
5. Promotion of positive relationships, encouragement of responsible personal and social behaviors among students, and establishment of a productive learning environment

6. Development and use of an effective behavior management plan

locate resources, present information, and enhance professional development

B. Communication

1. Effective verbal and nonverbal communication skills in a variety of physical activity settings
2. Specific and appropriate instructional feedback in skill acquisition, student learning, and motivation
3. Communication of classroom management and instructional information in a variety of ways (e.g., verbally and nonverbally and via bulletin boards, music, task cards, posters, and technology)
4. Communication in ways that show respect and consideration for students, colleagues, and parents

C. Collaboration

1. Current educational issues that cross subject matter boundaries
2. Integration of knowledge and skills from multiple subject areas in physical education
3. Establishment of productive relationships to support student growth and well-being with school colleagues and administrators, parents and guardians, community members, and organizations
4. Promotion of a variety of opportunities for physical activity in the school and the community

D. Reflection

1. Use of the reflective cycle to facilitate change in teacher performance, student learning, and instructional goals and decisions (e.g., planning, teaching, assessment, and reflection)
2. Use of available resources to develop and grow as a reflective professional (e.g., students, colleagues, literature, professional organization memberships, professional development opportunities)

E. Technology

1. Design, development, and implementation of student learning activities that integrate information technology
2. Use of technologies to communicate, instruct, assess, keep records, network,

V. Planning, Instruction, and Student Assessment

A. Planning and Instruction

1. Teaching of skillful movement, physical activity, and fitness via pedagogy, sociology, psychology, anatomy and physiology, exercise physiology, biomechanics and kinesiology, motor development, and motor learning
2. Sequencing of motor skill activities and use of movement concepts and effective strategies to improve learning in physical education activities and to improve skill development
3. Provide of feedback to enhance skill development
4. Activities designed to improve health-related and skill-related fitness
5. Current issues, trends, and laws affecting the choice of appropriate physical education activities
6. Identification, development and implementation of appropriate program and instructional goals and objectives
7. Development of unit and lesson plans based on local, state, and national standards; program goals; instructional goals; and student needs
8. Appropriate instructional strategies to facilitate learning in the physical activity setting based on selected content, student needs, safety concerns, facilities and equipment, and instructional models
9. Use of teaching resources and curriculum materials to design learning experiences
10. Explanations, demonstrations, and appropriate instructional cues and prompts to link physical activity concepts to learning experiences and to facilitate motor skill performance
11. General and specific safety and injury prevention guidelines for planning of movement and fitness activities (e.g., first aid, cardiopulmonary resuscitation)

B. Student Assessment

1. Assessment of student skill performance and fitness via a variety of tools (e.g., observations, data, charts, graphs, and rating scales)
2. Gathering of data and assessment of student learning in the cognitive and affective domains by a variety of techniques (e.g., written assessments, rating scales, and observations)
3. Understanding of fitness assessments, such as the President's Challenge and Fitnessgram
4. Types of assessments and assessment methods (e.g., formative, summative, authentic, portfolio, standardized, rubric, criterion-referenced, and norm-referenced)
5. Validity, reliability, bias, and ways of interpreting assessment results
6. Appropriate assessment techniques to assess and improve student understanding and performance, provide feedback, communicate student progress, guide students' personal goal setting, and guide curricular and instructional decisions
7. Involvement of students in self-assessment and peer assessment
8. Appropriate assessment of individuals with disabilities
9. Referral procedures under the Individuals with Disabilities Education Act and Section 504 of the Vocational Rehabilitation Act

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