



JENNIFER M. GRANHOLM
GOVERNOR

THOMAS D. WATKINS, JR.
SUPERINTENDENT OF
PUBLIC INSTRUCTION

MEMORANDUM

TO: State Board of Education

FROM: Thomas D. Watkins, Jr., Chairman

DATE: April 7, 2004

SUBJECT: Approval of *ETS ParaPro Assessment* and Passing Score for Title I Paraprofessionals

The *No Child Left Behind Act of 2001* established new qualifications for Title I paraprofessionals to ensure that they would have the necessary knowledge and skills to assist in instructing students in the areas of reading, writing and mathematics. All Title I paraprofessionals hired after January 8, 2002, are required to meet one of the following qualifications:

- Two years of study at an institution of higher education, or
- An associate's (or higher) degree, or
- Meet rigorous standards through a formal assessment of knowledge of and ability to assist in instructing reading, writing and mathematics.

Title I paraprofessionals employed prior to January 8, 2002, must meet one of these requirements by January 8, 2006.

In April 2002, the Basic Skills Test of the Michigan Test for Teacher Certification was identified as an assessment that could be used to meet the new requirements. In keeping with the intent to identify other assessments that would be appropriate for this purpose, the State Board of Education approved the ACT WorkKeys assessments on July 24, 2003, after a formal profiling process had been completed to identify the specific tests and passing scores. At that time, Department staff indicated that they would continue to review other assessment options to make additional choices available.

On October 23, 2003, the State Board approved the *ETS ParaPro Assessment* for the purpose of conducting a standard setting study. The *ParaPro Assessment* was developed by Educational

STATE BOARD OF EDUCATION

KATHLEEN N. STRAUS - PRESIDENT • HERBERT S. MOYER - VICE PRESIDENT
CAROLYN L. CURTIN - SECRETARY • JOHN C. AUSTIN - TREASURER
MARIANNE YARED MCGUIRE - NASBE DELEGATE • ELIZABETH W. BAUER
REGINALD M. TURNER • EILEEN LAPPIN WEISER

608 WEST ALLEGAN STREET • P.O. BOX 30008 • LANSING, MICHIGAN 48909
www.michigan.gov/mde • (517) 373-3324

Printed by members of:



State Board of Education
Page 2
April 7, 2004

Testing Service (ETS) for the specific purpose of providing an assessment option that would meet the requirements of the *No Child Left Behind Act of 2001*. Each state that approves the use of the *ParaPro Assessment* sets a passing score based on a standard setting study conducted by ETS in that state.

The standard setting study for Michigan was conducted on February 10, 2004. The report of this study is attached as Attachment A. Based on the study, ETS recommends a passing score of 460 for Title I paraprofessionals in Michigan. This is the same score set by five of the twenty-nine states that have already approved the *ParaPro Assessment* and falls in the middle of the range for these states (450 – 467). A list of the states and their passing scores is attached as Attachment B.

It is recommended that the State Board of Education approve the *ETS ParaPro Assessment and Passing Score for Title I Paraprofessionals* as described in the Superintendent's memorandum dated April 7, 2004.

**Standard Setting for The Praxis Series™
ParaPro Assessment**

**Michigan
Study Date: February 2004**

**Prepared by:
Educational Testing Service
March 2004**



Prepared for the Michigan Department of Education

Copyright © 2004 by Educational Testing Service. All rights reserved.

EDUCATIONAL TESTING SERVICE, ETS, and the modernized ETS logo are registered trademarks of Educational Testing Service. THE PRAXIS SERIES is a trademark of Educational Testing Service.

Educational Testing Service is an Equal Opportunity Employer.

Abstract

This report describes the results of the study conducted by Educational Testing Service (ETS), in conjunction with the Michigan Department of Education to set standards for The Praxis Series™ ParaPro Assessment. The goal of the study was to recommend a minimum passing score (i.e., study value) for the assessment.

For the ParaPro Assessment, panel members received appropriate training on the modified Tucker/Angoff standard-setting method. This method necessitates that each panelist review each test question and judge the percentage of a hypothetical group of 100 sufficiently knowledgeable beginning paraprofessionals who would know the correct answer to the question. This hypothetical group, overall, has a sufficient foundation of reading, writing, and mathematics knowledge to support instruction in those areas. The working definition was established through whole-panel discussion, which was facilitated by the standard-setting panel leader.

Once the working definition was established, the panel leader instructed the panelists on how to make and record their standard-setting judgments. As part of the training process, panelists practiced making judgments on sample ParaPro Assessment questions. For each sample question, panelists recorded the percentage of 100 sufficiently knowledgeable beginning paraprofessionals who would know the correct answer to the question. The panel leader also presented to the panelists certain features of test questions, not necessarily related to content understanding, which may impact question difficulty, such as the phrasing of the question and the similarity of available response options. After the panelists made their judgments, the panel leader facilitated a discussion encouraging the panelists to share their rationales for their judgments. Panelists were then presented with the actual percentage of paraprofessionals who correctly answered each sample question from a pilot administration. Once all of the sample questions were completed, the panelists continued the practice portion of the training with a few of the actual questions from the test being considered.

At the conclusion of the training and practice session, panelists were asked to complete and sign an evaluation form acknowledging that they received sufficient training and felt prepared to continue. Panelists made their operational knowledge estimation judgments for each question on the ParaPro Assessment by recording the percentage of 100 sufficiently knowledgeable beginning paraprofessionals who would know the correct answer.

The average question-level judgment across all panelists was computed for the 75 operational ParaPro Assessment questions. This value was then adjusted to account for candidates who might not know the correct answer, but may get the question right by guessing. The scaled score that a candidate can receive on the ParaPro Assessment ranges from a low of 420 points to a high of 480 points. The recommended passing score based on the panelists' judgments for the ParaPro Assessment is 460.

Standard Setting Study for The Praxis Series™ ParaPro Assessment

Michigan

Introduction

This report documents the study conducted to recommend a minimum qualifying score (passing score) for The Praxis Series™ ParaPro Assessment in Michigan. Educational Testing Service (ETS) conducted the study on behalf of and in cooperation with the Michigan Department of Education. The study was conducted on February 10, 2004.

The ParaPro Assessment was designed to measure paraprofessionals' knowledge of reading, writing, and mathematics, and their ability to apply that knowledge to assist in reading, writing, and mathematics instruction. The assessment consists of 90 multiple-choice questions. Of these questions, only 75 questions count toward determining a candidate's score. Fifteen questions are pre-test questions that may be used in future editions of the assessment. Candidates are not told which questions are the pre-test questions. Paraprofessionals and teachers who work with paraprofessionals helped to define the content covered by the assessment so that the content would reflect knowledge believed to be important for actual practice. The assessment was developed in response to the *No Child Left Behind Act of 2001* (No Child Left Behind).

No Child Left Behind¹

No Child Left Behind was enacted as part of a federal initiative to improve the quality of elementary and secondary education. One focus of the legislation addresses the preparation of paraprofessionals. Specifically, as of January 2002, instructional paraprofessionals seeking to work in a school receiving Title I funds must possess a high school diploma (or its equivalent) *and* meet one of three federal requirements: (1) complete at least two years of college study, or (2) obtain an associate's (or higher) degree, or (3) demonstrate through an assessment process their knowledge of reading, writing, and mathematics and their ability to assist in instruction in those content areas. Paraprofessionals already working in Title I funded schools, before January 2002, have until 2006 to meet one of the three No Child Left Behind requirements. The ParaPro Assessment may be used by state agencies and school districts to meet the third federal requirement.

¹ The *No Child Left Behind Act of 2001* can be located at <http://www.ed.gov/legislation/ESEA02/>.

Standard Setting: Recommending a Passing Score

A passing score is the minimum score that a paraprofessional needs to achieve on the ParaPro Assessment in order to meet the requirement of No Child Left Behind, as determined by state agencies that have adopted the assessment. No Child Left Behind applies to both experienced and beginning paraprofessionals seeking to work in a Title I funded school. Since beginning paraprofessionals may have little or no experience as a classroom paraprofessional, the recommended passing score is set in the context of *beginning* practice—what level of reading, writing, and mathematics knowledge is believed to be sufficient for a beginning paraprofessional to have in order to support instruction in those areas.² A passing score is recommended to the state agency by a representative panel of experts, those highly familiar with the occupation and the scope of responsibilities of that occupation. The recommended passing score reflects the collective judgment of the panel.

Standard Setting Panel³

The panel of experts was selected by the participating state agency. The selection process was guided by a set of criteria to address the size and representativeness of the panel. To the extent possible, the panel was to consist of between 10 and 15 experts. Sixty percent of the panel was to consist of paraprofessionals with, at most, either a high school diploma or its equivalent as they represent the group of paraprofessionals who will be taking the assessment to meet the No Child Left Behind requirement. Twenty percent was to consist of paraprofessionals with at least two years of college study and 20 percent was to consist of licensed teachers who supervise paraprofessionals in the classroom. The panel was to reflect elementary-, middle- and secondary-school levels, with the greatest concentration at the elementary level, as most paraprofessionals work in that setting. The panel was also to be racially/ethnically diverse and to consist of experts with no more than 10 years of experience. The experience guideline was included to reinforce the connection to beginning-level practice. Most paraprofessionals and teachers were also to be selected from Title I funded schools or programs, as these schools or programs are the focus of No Child Left Behind.

A summary of the demographic characteristics of the overall panel is presented in Table 1. In brief, the overall panel consisted of 15 experts: six paraprofessionals with either a high school diploma or its

² Experienced instructional paraprofessionals, by virtue of their job experience, are likely to have greater depth and breadth of content knowledge than would be reasonable to expect of most beginning instructional paraprofessionals. Although experienced paraprofessionals may be taking the assessment prior to 2006, the focus of the passing score is on beginning-level practice, as this, we believe, is most fair to all instructional paraprofessionals—inexperienced and experienced—taking the ParaPro Assessment in fulfillment of No Child Left Behind.

³ The agenda for the panel is presented in Appendix A.

equivalent, six paraprofessionals with at least two years of college study, and three supervising teachers. Fifty-three percent reported themselves as White, 27 percent as African American or Black, and 13 percent as Hispanic or Latino. Seventy-three percent reported working in an elementary school, seven percent in a middle school, and 20 percent in a secondary school. Forty-seven percent of the panel had seven or fewer years of experience. Sixty-seven percent reported working in a Title I funded school. The panelists' names and affiliations are presented in Appendix B.

Standard Setting Process⁴

Prior to the study, panelists were mailed an overview description of the purpose and process of standard setting, the test specifications, sample questions, and an abbreviated agenda. On the day of the study, the panelists were trained in how to make the necessary judgments based on the modified Tucker/Angoff standard-setting method. The basic Tucker/Angoff standard-setting method, as applied to the ParaPro Assessment is summarized next.

This method necessitates that each panelist review each test question and judge the percentage of a hypothetical group of 100 sufficiently knowledgeable beginning paraprofessionals who would know the correct answer to the question. The definition of this hypothetical group is critical, as it serves as the frame of reference against which each panelist evaluates each question. As applied to the ParaPro Assessment, the hypothetical group of 100 is defined as representing a range of sufficiently knowledgeable beginning paraprofessionals. These are beginning paraprofessionals who, overall, have a sufficient foundation of reading, writing, and mathematics knowledge to support instruction in those areas. Paraprofessionals who clearly do not have a sufficient knowledge base are not part of this hypothetical group; paraprofessionals who clearly have expert-level knowledge are not part of this hypothetical group.

The working definition was established through whole-panel discussion, which was facilitated by the standard-setting panel leader. Included among the discussion points was that the target paraprofessionals possess either a high school diploma or its equivalent, and so are not likely to have had more advanced formal education—content courses—in reading, writing, and mathematics. It was also reemphasized that these paraprofessionals may be entering the field for the first time and, therefore, have no experience as a classroom paraprofessional or only very limited experience. This understanding is important, as the expectation (standard of knowledge) one may have for an

⁴ Selected data collection sheets are presented in Appendix C.

experienced paraprofessional is likely to be different and higher than that for a paraprofessional just starting out.

Once the working definition was established, the panel leader instructed the panelists on how to make and record their standard-setting judgments. As part of the training process, panelists practiced making judgments on sample ParaPro Assessment questions. For each question, panelists recorded the percentage (10%, 20%, 30%, . . . 90%) of 100 sufficiently knowledgeable beginning paraprofessionals who would know the correct answer to the question. (These are paraprofessionals who possess the content knowledge measured by the question.) If, for example, a panelist believed that a particular question measured a relatively difficult aspect of reading knowledge, the panelist might judge that a smaller percentage of sufficiently knowledgeable beginning paraprofessionals would know the correct answer. Conversely, if a panelist believed that another question measured a relatively easy aspect of reading knowledge, the panelist may judge that a larger percentage of sufficiently knowledgeable beginning paraprofessionals would know the answer. The panel leader also presented to the panelists certain features of test questions, not necessarily related to content understanding, which may impact question difficulty, such as the phrasing of the question and the similarity of available response options. These question-features may interact with a candidate's demonstration of content knowledge, and so panelists are encouraged to keep these in mind as they make their judgments.

After the panelists made their judgments, the panel leader facilitated a discussion encouraging the panelists to share their rationales for the judgments they had made. The discussion is important as it allows the panelists to understand other relevant perspectives; the goal is not, however, to convince any panelist to conform to another panelist's way of thinking. Panelists were then presented with the actual percentage of paraprofessionals who correctly answered that question from a pilot administration. (The pilot results provide a frame-of-reference for purposes of guiding the panelists' understanding of how difficult questions may be for the target group of paraprofessionals.) Once all of the sample questions were completed, the panelists continued the practice portion of the training with a few of the actual questions from the actual edition of the test they were reviewing.

At the conclusion of the training and practice session, panelists were asked to complete and sign an evaluation form. By signing the form, a panelist acknowledges that he or she has received sufficient training and feels prepared to continue. Any panelist who does not feel adequately prepared is asked to indicate those areas where additional clarification is needed. If resolution cannot be reached with

further training and assistance, and either the panel leader or the panelist believes the panelist cannot continue, he or she is released from further participation in the study. All panelists signed-off on their evaluation forms and continued in the standard-setting process.

Panelists next began to make their independent knowledge estimation judgments for the ParaPro Assessment. For each question, each panelist recorded the percentage (10%, 20%, 30%, . . . 90%) of 100 sufficiently knowledgeable beginning paraprofessionals who would know the correct answer.

Results

The average question-level judgment across all panelists was computed for the 75 operational ParaPro Assessment questions. The 15 pre-test questions were not factored into the recommended passing score calculation. The average was 42.77, and represents the panel's collective judgment of the number of questions for which a sufficiently knowledgeable beginning paraprofessional would know the correct answer. This is the unadjusted recommended passing score value. This value was then adjusted to account for candidates who might not know the correct answer, but may get the question right by guessing. Since the ParaPro Assessment is a multiple-choice test with four response options for each question, candidates have, on average, a 25 percent chance of guessing a correct response. The adjusted recommended passing score for the ParaPro Assessment was 50.83. The reporting scale for the assessment ranges from a low of 420 to a high of 480. The recommended scaled passing score for the ParaPro Assessment was 460. Table 2 presents a summary of passing score information and other relevant results.

Other Information to Consider When Establishing a Passing Score

State agencies are encouraged to consider the panel's recommended passing score and the standard-setting process used to arrive at that collective judgment when establishing the final, operational ParaPro Assessment passing score.

In addition, state agencies may consider other information to guide their decision about the operational passing score. One source of information is the standard error of measurement (SEM), which quantifies the level of uncertainty associated with the measurement process. Candidates may not perform to the same level on each edition of an assessment or on each testing occasion. For example, some candidates may find one edition of an assessment somewhat easier than another edition and/or some candidates on the day of testing may not feel particularly well. If a candidate were to take multiple editions of an assessment on multiple occasions, the average test score would be a highly

accurate estimate of the candidate's "true" level of knowledge. The SEM is useful as it indicates how closely candidates' current assessment scores are to their "true" scores. The smaller the SEM, the more precise is the measurement process. About 68 percent of a group of candidates will earn assessment scores within 1 SEM of the score they would have earned had they taken many different editions of the assessment on many different occasions. About 95 percent will earn assessment scores within 2 SEMs. The raw score SEM for the edition of the ParaPro Assessment used in this study is 3.29. The scaled score SEM for all editions of the ParaPro Assessment is 3.40.

The SEM is related to two types of classification errors: passing an examinee who should fail (false positive) or failing an examinee who should pass (false negative). The two types of classification errors are interdependent, such that decreasing the likelihood of one increases the likelihood of the other. State agencies may benefit by considering which type of classification error is more important to avoid (decrease) for its purposes and base the operational ParaPro Assessment passing score, in part, on that determination. Lowering the passing score, for example, is more likely to decrease the number of false negative classifications, but more likely to increase the number of false positive classifications. Raising the passing score, on the other hand, is more likely to decrease the number of false positive classifications, but more likely to increase the number of false negative classifications.

TABLE (continued)

School Level	Paraprofessionals		Supervising Teachers		Total Group	
	Number	Percent	Number	Percent	Number	Percent
Elementary	8	67%	3	100%	11	73%
Middle		8%	0	0%		7%
Secondary	3	25%	0	0%	3	20%
School Setting						
Urban	5	42%	0	0%	5	33%
Suburban	5	42%		33%	6	40%
Rural	2	17%	2	67%	4	27%
Title I School						
Works in a Title I School	8	67%	2	67%	10	67%
Does not work in a Title I School	4	33%	1	33%	5	33%
Special Education Program						
Works in a Special Education Program		42%				40%
Does not work in a Special Education Program		58%				60%

12

Note:

Percentages do not always sum to 100% due to rounding.

TABLE 2
STUDY VALUES
 15 Panelists

Test Code	Test Name and Form	Test Type	# of MC Points	Study Value	Percent of Maximum	SEM	SV-1 SEM	SV-2 SEM
				Raw (Scaled)			Raw (Scaled)	Raw (Scaled)
0755	ParaPro Assessment (3YPR3)	MC	75	50.83 (460)	68%	3.29 (3.40)	47.54 (457)	44.25 (454)

Notes:

Study Value (SV)

For the multiple-choice test, an adjustment for guessing was applied to compensate for the possibility that test takers are likely to answer some questions on the test correctly, not by knowing the answer to the question, but by guessing the correct answer. This adjustment was made by first subtracting the average number of scored questions to which sufficiently knowledgeable examinees would *know* the answer (based on the panel members' judgments) from the total number of scored questions. The result of this computation is the number of questions to which sufficiently knowledgeable examinees would *not know* the answer, but might answer correctly by guessing. Dividing this difference by the number of options in the test questions produces the chance score for those questions. The chance score is then added to the average number of scored questions to produce the study value.

Study Value (Scaled)

The Study Value (Scaled) corresponds to the truncated value of the Study Value (Raw). The reporting scale ranges from 420-480.

Percent of Maximum

This value is the percent of the number of multiple-choice points (i.e., number of scored questions) represented by the Study Value (Raw).

SEM

SEM is the Standard Error of Measurement. For standard setting, the SEM Raw value for this edition of the test is applied to the Study Value Raw. Therefore, the values in parenthesis for the Study Value, SV-1 SEM, and SV-2 SEM represent the scaled score equivalents of the truncated raw score values that appear directly above. The SEM (Scaled) value listed in the table, 3.40, is provided for reference and represents the scaled score SEM for all editions of the ParaPro Assessment. Therefore, the scaled score values will not necessarily equal the Study Value (Scaled) minus the SEM (Scaled).

13

Appendix A

**THE PRAXIS SERIES™
MICHIGAN STANDARD SETTING STUDY
EAST LANSING MARRIOTT AT UNIVERSITY PLACE**

Agenda: ParaProfessional Assessment
1 multiple-choice module

Tuesday, February 10, 2004

- | | |
|---|----------------|
| Registration | 9:15 am |
| II Welcome and Introduction | 9:30 am |
| <ul style="list-style-type: none"> A. Introductions and Roles <ul style="list-style-type: none"> 1. Panel Leader 2. Panel Members 3. ETS Staff 4. Michigan Department of Education Representation B. No Child Left Behind Act (Federal Legislation) C. Selection of Panel Members D. Review Roles of Panelists and Panel Leader | |
| III. Overview of Study (ETS) | |
| <ul style="list-style-type: none"> A. Purpose of Today's Study B. Before Today: Opportunity to become familiar with test specifications C. Blue Folders <ul style="list-style-type: none"> 1. Review Contents 2. Complete and Collect Biographical Form, Nondisclosure Form, and Permission Form Packets and Biographical Scan Form 3. Brief Explanation of Exercise and Forms 4. Explain General Comments Form D. Background for Test Development Process | |
| COFFEE | |
| IV. Training for Judging Multiple-Choice Items | |
| <ul style="list-style-type: none"> A. Define Sufficiently Knowledgeable Beginning Paraprofessional B. Practice Making Judgments for Items of Different Difficulty C. Instructions for Completing the Blue Scannable Knowledge Estimation (KE) Form | |
| LUNCH | Noon |



Copyright © 2004 by Educational Testing Service. All rights reserved.

V. Standard Setting: Multiple-Choice Module

- A. Rate 6 Items
- B. Group Discussion
- C. Panelist's Comment Form (Form #20)
- D. Training Evaluation Form: Multiple-Choice (Form #7para)
- E. Knowledge Estimation Judgments

COFFEE

VI. Collecting Test and Forms

- A. Test Booklet
- B. Knowledge Estimation Blue Scan Form
- C. Pink Comment Form
- D. General Comments Form

VII. Adjourn

3:45 pm

Panel Leader: John Tooker

Appendix B

PARAPROFESSIONAL PANEL

N = 15

February 10, 2004

Diana Coppens	Merrill Elementary School/Merrill Community Schools
Peggy Coulouris	Maple Valley Elementary School/Sandusky Community Schools
Melissa Coulter	Maple Lane Elementary School/Macomb Intermediate School District
Lizbeth Deindorfer	Reading Resource Center/Ionia Public Schools
Linda L. Fields	Community Connections Learning Center/Lansing School District
Corey D. Hampton, Sr	Hull Middle School/Benton Harbor Area Schools
Dan Haske	John Glenn High School/Bangor Township Schools
David C. Hockaday	Lansing School District
Michele Kuanda	Henry Ford Academy/Highland Park City School District
Mary Mars	Pinehurst Elementary School/Mt. Morris Consolidated Schools
Patricia O'Loane	Hill Vocational Center/Lansing School District
Paula J. Probstfeld	Oxbow Community School/Huron Valley Schools
Ana Tabares	Webster Elementary School/Detroit Public Schools
Sharon Theriault	Commerce Elementary School/Walled Lake Consolidated Schools
Marie A. Zalucki	Maple Lane Elementary School/Macomb Intermediate School District

**Michigan Department of Education and
Educational Testing Service Representatives**

**Paraprofessional Study
February 10, 2004**

Michigan Department of Education

Linda Brown, Assistant Director

Educational Testing Service

Panel Leader: John Tooker

Logistics: Dorinda Tooker

Appendix C

ID#

THE PRAXIS SERIES™

Biographical Information Form for Panel Members

PANEL SUBJECT PARAPRO ASSESSMENT DATE _____

NAME _____ E-MAIL _____

CURRENT JOB _____

SCHOOL ADDRESS _____ SCHOOL TELEPHONE _____

CITY _____ STATE _____ ZIP _____

HOME ADDRESS _____ HOME TELEPHONE _____

CITY _____ STATE _____ ZIP _____

ARE YOU A MEMBER OF THE AFT? YES NO

ARE YOU A MEMBER OF THE NEA? YES NO

OTHER PROFESSIONAL ASSOCIATIONS/ORGANIZATIONS YOU ARE A MEMBER OF: _____

SUBJECT AREA/ PRIMARY INSTRUCTIONAL ASSIGNMENT: _____

HIGH SCHOOL DIPLOMA YEAR EARNED: _____

GED YEAR EARNED: _____

DEGREE EARNED	INSTITUTION	MAJOR	MINOR	YEAR
---------------	-------------	-------	-------	------

ASSOCIATE'S

BACHELOR'S

MASTER'S

RECOMMENDED BY: _____
 (NAME) (ORGANIZATION)

FOR LICENSED TEACHERS ONLY

TEACHING CERTIFICATION/LICENSES HELD (Subject and Grade Level) _____





**NONDISCLOSURE POLICY AND RELEASE FORM
PARAPRO ASSESSMENT**

I understand that the test items I will be reviewing are secure, undisclosed items that constitute the proprietary and confidential information of Educational Testing Service (ETS). I also understand that any unauthorized use, reproduction, or disclosure of these items would be damaging to ETS. I accept responsibility for the proper safeguarding of these confidential test materials and any other confidential information provided by ETS and agree to the following conditions:

If I leave the meeting room, my copy of the test will remain in the room. The test copy will be returned to the ETS representative at the end of the inspection period.

2. I will not take the ParaPro Assessment for a period of six months following this panel meeting.
3. I will not take notes, or otherwise record, copy, or disclose items or responses during or after the panel meeting.
4. I will use the test materials for the sole purpose of participating in this panel meeting and will not use them for any other purpose without ETS's prior written consent.
5. I understand that by participating in this panel meeting I do not obtain or receive any proprietary or other rights to use, reproduce, modify, or disclose the secure test items.

Signed _____

Name (please print) _____

Date _____

ETS, EDUCATIONAL TESTING SERVICE, the ETS logo and NTE are registered trademarks of Educational Testing Service. THE PRAXIS SERIES is a trademark of Educational Testing Service.

PERMISSION TO BE LISTED AS A STUDY PARTICIPANT

**STANDARD SETTING STUDY OF
THE PRAXIS SERIES™
PARAPRO ASSESSMENT**

I agree to have my name listed as a panelist in the final study report.

I do not wish to be listed as a panelist in the final study report.

Signature

Date

Print Name (exactly as you want it published)

School (please list full name)

School District (please list full name)

INSTRUCTIONS FOR COMPLETING THE *PARAPRO ASSESSMENT BIOGRAPHICAL SCAN FORM*

Gridding Instructions

- Use only the No. 2 (soft-lead) pencil given to you.
- Make each mark dark and completely fill the circle.
- Do not extend marks outside the circles.
- Use a clean soft eraser. Erase completely any changes you wish to make. Make no stray marks on the form.

Panelist Information Section

The items in this section appear on the *ParaPro Biographical Scan Form*.

ID Number. Write the three-digit ID number assigned to you as a panelist in the boxes provided. Then fill in the circles with your ID number. This number is on the front of your blue folder.

- **Current Job Title.** Fill in ONE circle only that better describes your job title.

Years Experience in Current Job Title. Fill in ONE circle that best represents the number of years that you have served in your current job title.

- **Gender.** Fill in the circle for male or female.

Name. Please print your name in the space provided.

Ethnicity. Fill in ONE circle only that best describes how you classify your ethnicity.

What State Do You Currently Work In? Write the two letter state abbreviation in the boxes provided. Then, fill in the corresponding circles underneath.

- **Highest Level of Education.** Fill in ONE circle that best describes the highest level of education that you have completed.
- **School Level.** Fill in ONE circle that best describes the school level at which you teach or provide other educational services

School Setting. Fill in ONE circle that best describes your school setting.

Do You Work In a Title I School?. Fill in YES or NO.

- **Do You Work In Special Education Program?** Fill in YES or NO.

Verify that you have entered all required information.



Copyright © 2002 by Educational Testing Service. All rights reserved.

ParaPro Assessment Biographical Scan Form

Please complete the biographical information for each of the questions listed below.

- Use a No. 2 pencil only.
- Do not use ink, ballpoint, or felt tip pens.
- Make solid marks that fill the response completely.
- Erase cleanly any marks you wish to change.
- Make no stray marks on this form.

CORRECT: ● INCORRECT: ○

ID NUMBER		
0	1	2
3	4	5
6	7	8
9	0	1
2	3	4
5	6	7
8	9	0
1	2	3
4	5	6
7	8	9
0	1	2
3	4	5
6	7	8
9	0	1

CURRENT JOB TITLE
(Fill in only one circle)

teacher of record

YEARS EXPERIENCE IN CURRENT JOB TITLE

- 3 or Less Years
 4 - 7 Years
 8 - 11 Years
 12 - 15 Years
 16 or More Years

A	A
B	B
C	C
D	D
E	E
F	F
G	G
H	H
I	I
J	J
K	K
L	L
M	M
N	N
O	O
P	P
Q	Q
R	R
S	S
T	T
U	U
V	V
W	W
X	X
Y	Y
Z	Z

WHAT STATE DO YOU CURRENTLY WORK IN?

Using the two column grid to the left, indicate the state in which you currently work by writing the state's initials in the box above the grid and then shading the corresponding circles. (i.e. Arizona = AZ)

HIGHEST LEVEL OF EDUCATION

- High school diploma or GED
 Completed two years of college or university study
 Associate's degree (AA)
 Bachelor's degree (BA or BS)
 Master's degree or higher

GENDER

Female
 Male

NAME: _____
please print

ETHNICITY

- African American or Black
 American Indian or Alaska Native
 Asian American or Asian
 Hispanic or Latino
 Native Hawaiian or Other Pacific Islander
 White (non-Hispanic or non-Latino)

SCHOOL LEVEL

- Elementary
 Middle
 Secondary

SCHOOL SETTING

- Urban
 Suburban
 Rural

DO YOU WORK IN A TITLE I SCHOOL?

- Yes
 No

DO YOU WORK IN A SPECIAL EDUCATION PROGRAM?

- Yes
 No

25

TRAINING EXERCISE FOR MULTIPLE-CHOICE ITEMS

Name: _____

Date: _____

State: _____

The purpose of this exercise is to provide you with practice in making the knowledge estimation judgments for test questions that differ in difficulty. You will need to consider two factors: (1) your personal definition of the hypothetical group of sufficiently knowledgeable beginning paraprofessionals* and (2) the differential difficulties of the test questions.

After reading the test question, circle the number from 10 to 90 that represents the percentage of sufficiently knowledgeable beginning paraprofessionals* (as defined by yourself) who **WOULD** know the answer to the question.

Item #	****YOUR****											
	Estimated Percentage of Sufficiently Knowledgeable Beginning Paraprofessionals Who Would Know the Answer										Actual Data	
											P+	P _{second}
	10	20	30	40	50	60	70	80	90			
2	10	20	30	40	50	60	70	80	90			
3	10	20	30	40	50	60	70	80	90			
4	10	20	30	40	50	60	70	80	90			
5	10	20	30	40	50	60	70	80	90			
6	10	20	30	40	50	60	70	80	90			
	10	20	30	40	50	60	70	80	90			
8	10	20	30	40	50	60	70	80	90			
9	10	20	30	40	50	60	70	80	90			
10	10	20	30	40	50	60	70	80	90			

P+ = proportion of examinees who answered correctly

P_{second} = proportion of examinees whose total test scores are just below average (40th to 20th percentile) who answered the question correctly

NOTE: Your personal knowledge estimation values need NOT be identical to those of other panel members. Your circled values will probably tend to be lower for harder items (those with smaller P+ values) and higher for easier items (those with larger P+ values).

*A beginning paraprofessional is someone who does not necessarily have classroom experience as a paraprofessional, and may be just entering the profession.



Copyright © 2002 by Educational Testing Service. All rights reserved.

ID#

TRAINING EVALUATION SHEET

MULTIPLE-CHOICE ITEMS

Please indicate your level of understanding regarding each of the following tasks.

(A rating of "insufficient" means you still have unanswered questions and are not ready to begin making knowledge estimation judgments about the test questions. A rating of "sufficient" means the training and discussion answered your questions and you are ready to begin judging test questions.)

INSUFFICIENT

SUFFICIENT

Develop the concept of a sufficiently knowledgeable beginning paraprofessional*

Develop an awareness of the range of difficulty of the test questions for a sufficiently knowledgeable beginning paraprofessional ()

Ability to use the scan form and comment sheet ()

I need more information about other topics before I am ready to evaluate the test questions. Make check here () and list additional topics:

I have the information I need to begin evaluating test questions.

(Date)

(Signature)

(Print Name)

*A beginning paraprofessional is someone who does not necessarily have classroom experience as a paraprofessional, and may be just entering the profession.



INSTRUCTIONS FOR COMPLETING THE KNOWLEDGE ESTIMATION FORM PARAPRO ASSESSMENT

Gridding Instructions

- Use only the No. 2 (soft-lead) pencil given to you.
- Make each mark dark and completely fill the circle.
- Do not extend marks outside the circles.
- Use a clean, soft eraser. Erase completely any changes you wish to make.
- Make no stray marks on the form.

Panelist Information Section

You need only to fill in your ID # here. All other demographic information should be entered on the ParaPro Assessment Biographical Scan Form.

ID Number. Write the three-digit ID number assigned to you as a panelist in the boxes provided. Then fill in the circles with your ID number. This number is on the front of your blue folder. **Also, please fill in the test code number 0755.**

Question Review Section

Your task is to make judgments about the difficulty of individual test questions for sufficiently knowledgeable beginning paraprofessionals*. You will be asked to draw upon your own experience to construct a hypothetical group of beginning paraprofessionals, each of whom, in your judgment, has the minimum levels of reading, writing, and mathematics knowledge necessary to assist in the instruction of those content areas.

As you read each test question and its answer, think of this group of sufficiently knowledgeable beginning paraprofessionals. Judge what proportion of the individuals in the group would know the answer to the question. If there were 100 sufficiently knowledgeable candidates, how many of them would know the answer? You should estimate the proportion who would know the answer without considering the possibility that some additional candidates might guess the correct answer.

When you have made your estimate, locate the column on the Knowledge Estimation Form with the proportion heading (10, 20, 30, 40, 50, 60, 70, 80, or 90) that is closest to your estimate and fill in the corresponding circle on the form with a heavy, dark mark so that you cannot see the number. Before you fill in a circle, please make sure that the number on the form matches the number of the question in the test booklet. If you wish to change a response, erase your first choice completely so that your final judgment will be the only one picked up by the scanning machine.

In making your judgments you are not to be concerned about how many questions you are assigning to the various proportion categories; your responsibility is to apply your best judgment in evaluating each test question individually.

* A beginning paraprofessional is someone who does not necessarily have classroom experience as a paraprofessional, and may be just entering the profession.

After you have finished making your estimates about the questions on a page, and again when you have finished with the entire test booklet, please look over the questions and your responses to be sure that you are satisfied with your estimates. Also, check that the number of the last question for which you have recorded an estimate on the Knowledge Estimation Form corresponds to the number of the last question in the test booklet. Because the same scan form is being used for all tests, there may be more questions listed on the form than there are in the test booklet with which you are working.

MARKING INSTRUCTIONS

- Use a No. 2 pencil only.
- Do not use ink, ballpoint, or felt tip pens.
- Make solid marks that fill the response completely.
- Erase cleanly any marks you wish to change.
- Make no stray marks on this form.

CORRECT ●

INCORRECT ○

38

18

39

19

40

23

45

25

46

18

49

50



Attachment B

STATE	QUALIFYING SCORE	STATE	QUALIFYING SCORE
Arizona	459	Nevada	
Arkansas	457	New Jersey	
Connecticut	457	New Mexico	457
Delaware	459	North Dakota	
Florida Consortium	464*	Ohio	
Georgia	456	Rhode Island	
Idaho	460	South Carolina	
Illinois	460	South Dakota	461
Indiana	460	Tennessee	
Kansas	455	Texas Region 19	
Louisiana	450	Utah	460
Maryland	455	Virginia	
Massachusetts	464	Washington	461
Missouri	458	Wyoming	
Nebraska	456		

* The qualifying score set by each school district may be different. Contact your school district to verify the qualifying score.