



Ohio Assessments for Educators

Technical Report Addendum

Development and Validation
2014–2016

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Preface

This technical manual is an addendum to the test development activities undertaken for the Ohio Assessments for Educators (OAE) program during the 2014-2015 and 2015-2016 Program Years. The manual provides validity evidence to support the use of two new tests in the OAE program, Dance and Foundations of Reading. These tests were first operational in late 2016. This manual also provides evidence to support the validity of score interpretations for these new assessments.

This manual is intended for policy makers, state educators, and other interested stakeholders who would like to learn more about:

- the purpose, structure, and composition of the OAE testing program;
- the assessment frameworks (i.e., test competencies, test objectives) and test item validation processes;
- the content and bias review processes; and
- the establishment of Ohio passing standards.

Purpose of the Ohio Assessments for Educators (OAE) Program

Introduction

The Ohio Assessments for Educators (OAE) for candidates seeking initial licensure in a subject area (OAE: Initial Licensure) program assesses the content-area and professional (pedagogical) knowledge of candidates who are either seeking initial Ohio educator licensure or adding a new licensure area. The OAE program, administered by Pearson, currently includes 39 content-area assessments and four professional (pedagogical) knowledge assessments. Five OAE assessments include two separate tests each (i.e., Subtest I and Subtest II) for a total of 48 unique tests. The OAE tests are aligned with Ohio Educational Preparation Standards, Ohio Standards for the Teaching profession, and Ohio Student Standards.

Tests in the OAE program were validated for use in Ohio in accordance with the practices recommended by the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014). The Standards require a clear definition of content domain and a rationale to support a claim that the knowledge, skills, and abilities being assessed in a licensure test are required for credential-worthy performance. Educators, educator preparation program faculty, and administrators from across Ohio were involved in reviewing the test materials for content, job-relatedness, and prevention of bias as well as validating their appropriateness for use in Ohio.

The Foundations of Reading (FOR) test was developed based on the principles of scientifically based reading research and validated using industry-approved processes, including the review of content, job-relatedness, and prevention of bias.

For all OAE tests, including the Foundations of Reading test, Ohio educators and educator preparation program faculty and administrators made recommendations for the passing score for each test in the OAE program.

The OAE tests are computer-based and delivered through a national network of Pearson computer-based testing centers. Most tests are available year-round by appointment.

The OAE program offers several web-based resources to help candidates prepare for the tests. These resources include online study guides, practice tests, detailed score reports, and computer-based testing tutorials. In addition, a suite of faculty resources and interactive worksheets are available to assist in candidate preparation. The Ohio Department of Education and educator preparation programs have access to an interactive, electronic database that allows them to create customized reports of candidate test results and institution performance or to perform customized data queries.

Composition of the OAE Program

Currently, 48 OAE tests are available for test administration. Thirty-two OAE tests have been operational since September 3, 2013; twelve OAE tests have been operational since January 21, 2014; two OAE tests have been operational since September 2, 2014; and, two OAE tests, Dance and Foundations of Reading, have been operational since August 29, 2016, and December 19, 2016, accordingly.

Ohio Assessments for Educators (OAE)

Pedagogical Knowledge Assessments

- 001 Assessment of Professional Knowledge: Early Childhood (PK–3)
- 002 Assessment of Professional Knowledge: Middle Childhood (4–9)
- 003 Assessment of Professional Knowledge: Adolescence to Young Adult (7–12)
- 004 Assessment of Professional Knowledge: Multi-Age (PK–12)

Content Knowledge Assessments

- 005 Agriscience
- 006 Art
- 007 Biology
- 008 Business Education
- 009 Chemistry
- 010 Computer Information Science
- 011 Dance
- 012 Early Childhood Education
- 013 Early Childhood Special Education
- 014 Earth and Space Science
- 015 Educational Leadership
- 016 Computer/Technology (Subtest I)
- 017 Computer/Technology (Subtest II)
- 018 Elementary Education (Subtest I)
- 019 Elementary Education (Subtest II)
- 020 English Language Arts
- 021 English to Speakers of Other Languages
- 022 Family and Consumer Sciences
- 090 Foundations of Reading (FOR)
- 023 Health
- 024 Integrated Science
- 025 Integrated Social Studies
- 026 Marketing
- 027 Mathematics
- 028 Middle Grades English Language Arts
- 029 Middle Grades Science
- 030 Middle Grades Mathematics
- 031 Middle Grades Social Studies
- 032 Music
- 034 Physical Education
- 035 Physics
- 036 Prekindergarten (Subtest I)
- 037 Prekindergarten (Subtest II)
- 038 Reading (Subtest I)
- 039 Reading (Subtest II)
- 040 School Counselor
- 041 School Library Media Specialist
- 042 School Psychologist
- 043 Special Education
- 044 Special Education Specialist: Deaf/Hard of Hearing
- 045 Special Education Specialist: Visually Impaired
- 046 Technology Education (Subtest I)
- 047 Technology Education (Subtest II)
- 048 Theater

Alignment of the OAE Assessments and State Needs

The process of gathering validity evidence to support the use of the OAE assessments begins with the alignment of the OAE frameworks to Ohio standards. Both the Dance and Foundations of Reading frameworks were aligned to Ohio standards.

For Dance, an initial online review of the Framework was conducted with Ohio educators following the alignment study. A content validation survey of the competencies included in the Dance framework was also conducted with practicing Ohio educators and educator preparation program faculty.

The results of these validation activities indicated that additional development and validation was needed for Dance. With ODE approval, Pearson conducted the following additional development and validation activities for Dance:

- revise assessment framework
- develop test items to match revised framework
- conduct bias and content review of assessment framework with Ohio educators and revise the framework based on Ohio educator recommendations
- conduct bias and content reviews of test items with Ohio educators and revise items based on Ohio educator recommendations
- conduct content validation survey of revised assessment framework with Ohio teachers and teacher educators
- conduct standard setting activities for the revised assessment

The Foundations of Reading test was developed based on the principles of scientifically based reading research. Reviews of the framework and items in the test bank were conducted by educators and educator preparation faculty during the initial development of the test.

Panels of Ohio educators and educator preparation program faculty participated in standard setting activities for Dance and Foundations of Reading, where the panels of educators provided passing score recommendations to the State Board of Education of Ohio.

The assessment validation activities described above, and in greater detail throughout this report, provide support that the Dance and Foundations of Reading assessments are aligned to the state's need for a system of evaluating educator candidates and the state's need to identify candidates who possess the knowledge, skills, and abilities necessary to be an entry-level educator in the state.

The OAE and Ohio State Standards

The OAE program provides licensure tests that are aligned with Ohio Educational Preparation Standards, Ohio Educator Standards, and Ohio Student Standards. Pearson worked with the State of Ohio to verify that the content of the OAE is appropriate as defined by these standards. The standards that were consulted during the OAE test validation process for Dance and Foundations of Reading include:

- Ohio Educational Preparation Standards
 - Multi-Age Dance: 2008 Modified Ohio/NASD Program Standards (Grades PreK–12)

- Ohio Educator Standards
 - Ohio Reading Competencies, Pre K-3 and 4-9 (Knowledge) (2014)
 - Ohio Standards for the Teaching Profession
- Ohio Student Standards
 - 2012 Revised Fine Arts Standards - Dance
 - Ohio Learning Standards
 - English Language Arts

More information about the alignment studies for Dance and Foundations of Reading may be found in Appendix A of this manual. For a list of standards consulted during the test validation process of OAE assessments operational before 2016, refer to the [Ohio Assessments for Educators Technical Report, Development and Validation, 2012-2014](#).

Support Materials and Other Tools for the OAE Program

Pearson developed multiple web-based OAE test preparation tools designed to help candidates prepare for the OAE. The test preparation tools are available on the OAE program website at www.oh.nesinc.com. The online tools are designed to accommodate varying methods of preparation (independent study or under the direction of an instructor or faculty advisor); areas of focus (test content); and opportunities for access (at school, at home, while traveling). Educator preparation program faculty can also gain an understanding of the tests and how to help their candidates prepare through the use of the OAE Faculty Resources.

Candidates have access to the following resources to guide their preparation:

- **OAE Assessment Frameworks.** Assessment frameworks include the test competencies covered by each OAE assessment. In each framework, the competencies are organized into content domains that reflect the main areas of pedagogical or content area knowledge included on the test. Please note that the Foundations of Reading test framework refers to subareas in place of domains and objectives in place of competencies. Descriptive statements provide details about the nature and range of content covered by each competency/objective.
- **OAE Study Guides.** Online study guides are available for each assessment. The study guides include an overview of the test format, number of questions, test duration, test competencies/objectives with descriptive statements, and sample test questions with explanations of correct responses. The guides also include information to assist candidates in preparing for and taking the assessment.
- **OAE Practice Tests.** Online practice tests simulate the computer-based test experience. The Foundations of Reading practice test is available in PDF format. The practice test can be taken in real time or paused and returned to at any time. For all practice tests, with the exception of the Foundations of Reading practice test, test-takers receive a competency-level report with instant scoring of multiple choice questions that include explanations of correct responses.
- **Computer-Based Testing Tutorials.** Two tutorials are available to candidates on the program website. One tutorial is designed to help familiarize candidates with the navigation tools and operations of computer-based testing. It includes information about how to navigate through an assessment, select answers, and end the assessment. The second tutorial is downloadable and interactive. It guides candidates on how to record, change, and review answers. The tutorial

also gives candidates the opportunity to practice using various functions of the computer-based environment, including viewing visuals and exhibits, scrolling pages, reviewing items, typing in an essay box, and using an on-screen calculator.

- **Faculty Resources.** Educator preparation program faculty have access to an array of resources, including specially designed worksheets that may be used to map the OAE assessment framework content to the program curriculum. This mapping may assist in assessing the degree of alignment between the knowledge and skills taught in the preparation program curriculum and in the content of the OAE assessment frameworks.
- **Test Preparation Worksheets.** Candidates can complete worksheets to assess their preparedness to test. Faculty can review the completed worksheets to help assess whether a candidate may be ready to test based on the content covered in their coursework and guide further candidate preparation.

Validity Evidence to Support the OAE Program

Gathering validity evidence involves a comprehensive process of reviewing assessment content for alignment with state requirements for licensure, reviewing content to ensure it is equitable and free from bias, validating test competencies and items, and establishing an appropriate passing standard. Pearson worked with the Ohio Department of Education and Ohio educators and educator preparation faculty to implement such a process for the development of the Dance and Foundations of Reading assessments, collecting key validity evidence to support the use of the tests for the purpose of educator licensure.

Bias Prevention and Fairness in Test Development

To create sensitive, fair, and valid assessments for test takers, Pearson makes bias prevention and equity a priority during the development and review of test materials. Test developers and editors are charged with detecting and removing potentially biased content, situations, language, and stereotypes throughout the test design process. The composition of educator review committees reflects, to the extent possible, representative demographic characteristics, as does the drawing of participant samples for content validation surveys and standard setting activities.

Additionally, Pearson test development staff employ statistical analyses designed to detect instances where one group of candidates performs significantly better on an item than another group of equivalent ability (differential item functioning). Based on the results, any issues with the items can be addressed before tests become operational.

Pearson's *Fairness and Diversity in Tests* manual guides these efforts. This manual was developed by psychometricians and test development experts, and is used by educators across the country for test development purposes. In four major sections, it provides an in-depth discussion of the dimensions of bias in test development, addresses specific bias prevention steps and methods of bias review to be taken in test development, and includes a comprehensive understanding of equity inclusion (i.e., the inclusion of content that reflects diverse populations).

The sources of bias discussed in the manual include

- bias due to content;
- bias in language;
- bias due to assumptions and stereotypes; and
- bias due to lack of inclusion of test content that reflects diversity of the population for whom the test is intended.

Assessment Validity

The process used to gather validity evidence to support the use of the Dance and the Foundations of Reading assessments in the OAE program is designed to establish and/or support the connection between the tests and their educational purposes (i.e., educator licensure). This connection provides evidence supporting the validity of the score interpretations, which is the central concern in high-stakes professional testing programs. Comprehensive validity evidence strengthens the credibility of a licensure test for state use.

Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests. Validity is, therefore, the most fundamental consideration in developing and evaluating tests. The process of validation involves accumulating evidence to provide a sound scientific basis for the proposed score interpretations. (AERA, APA, & NCME, 2014, p. 11)

The *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014) provides professional guidelines for accumulating validity evidence. The guidelines are clear that the process for accumulating such validity evidence must be comprehensive and draw from every aspect of test development.

The Assessment Validation Process

The process begins with defining test materials and linking them to the most appropriate measurement tools for assessing the content. Content validation surveys are conducted to provide empirical evidence that the framework for each field includes appropriate and relevant content, which supports the validity of the test score interpretations.

The content validation survey for Dance provided information regarding the relative job-related importance of the framework, based on the judgments of practicing teachers and teacher educators. A content validation survey was conducted for the Foundations of Reading during its initial development.

The Dance and Foundations of Reading assessments provided for validation for use in Ohio were developed in accordance with the guidelines specified in the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014) for defining test materials, developing test items, establishing passing standards, and collecting evidence to support the validity of the tests. Pearson conducted the following activities to collect validity evidence to support the use of the OAE program tests:

1. establish advisory committees
2. review test content
3. conduct content validation survey
4. conduct bias item review
5. conduct content item review
6. conduct standard setting
7. establish passing standards

1. Establish Ohio Advisory Committees

Ohio educators and educator preparation program faculty reviewed and validated test materials for the use of the Dance assessment in the OAE program. Pearson worked with the Ohio Department of Education (ODE) to establish two groups of reviewers: a Bias Review Committee (BRC) and a Content Advisory Committee (CAC). The Foundations of Reading test went through similar validation activities when it was initially developed.

The CAC and BRC for Dance and the CAC for FOR included licensed Ohio educators and educator preparation program faculty as recommended by educator stakeholder groups (e.g., professional organizations, preparation program deans, school superintendents and principals) throughout the state. Recommended individuals were invited to complete a committee application form. In assembling each review group, Pearson

worked with ODE to provide representation in terms of ethnicity, gender, geographic region of the state, and school setting (e.g., urban, suburban, and rural areas).

When appropriate to documenting the validity of test score interpretations for intended uses, relevant experts external to the testing program should review the test specifications to evaluate their appropriateness for intended uses of the test scores and fairness for intended test takers. The purpose of the review, the process by which the review is conducted, and the results of the review should be documented. The qualifications, relevant experiences, and demographic characteristics of expert judges should also be documented. (AERA, APA, & NCME, 2014, p. 87)

Bias Review

While bias prevention is an integral part of Pearson’s test development activities and a component of each CAC’s responsibility, Pearson established a separate and independent BRC to specifically focus on reviewing assessment materials for potential bias issues, a development step recommended by the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014). The BRC in Ohio reviewed the Dance framework and test items. The Foundations of Reading test went through a bias prevention review when it was initially developed.

Content Review

Standard 14.14 of the *Standards for Educational and Psychological Testing* requires that evidence should be provided to show that the knowledge, skills, and abilities that the test intends to assess are required for credential-worthy performance in the occupation and are consistent with the purpose of the licensure program (AERA, APA, & NCME, 2014). For each assessment in the OAE program, a CAC reviewed test materials for accuracy and validated materials to include only content that is pertinent to the field and important for use in a licensing instrument. The role of each CAC was to review test materials for content accuracy and appropriateness. The CACs provide content-related validity evidence to support the use of the tests. CACs reviewed frameworks, validated test items, and participated in standard setting activities.

2. Review Test Content

An assessment framework defines the content knowledge, skills, and abilities important for the job of an entry-level educator in the area being assessed. Pearson developed an assessment framework for each OAE test, guided by recommendations in the *Standards for Educational and Psychological Testing*:

The first step in developing test specifications is to extend the original statement of purpose(s), and the construct or content domain being considered, into a framework for the test that describes the extent of the domain, or the scope of the construct to be measured. Content specifications, sometimes referred to as content frameworks, delineates the aspects (e.g., content, skills, processes, and diagnostic features) of the construct or domain to be measured.... The delineation of the content specifications can be guided by theory or by an analysis of the content domain (e.g., an analysis of job requirements in the case of many credentialing and employment tests). The content specifications serve as a guide to subsequent test evaluation. (AERA, APA, & NCME, 2014, p. 76)

Each OAE assessment framework is structured to include content domains, competencies, and descriptive statements. The Foundations of Reading assessment uses subareas and objectives in place of domains and competencies.

- Content domains (subareas) are the primary areas of content knowledge for the test area and serve to structure the content for both test preparation and score reporting purposes.
- The competencies (objectives) are broad meaningful statements of knowledge and/or skills that are important for performing the job of a licensed educator in Ohio public and nonpublic schools. Collectively, the competencies/objectives define the range of content to be measured by the test.
- The descriptive statements provide examples of the content and applications covered by the competencies/objectives. The descriptive statements are meant to be examples; they are not intended to cover the entire range of the competencies/objectives.

For both the Dance and Foundations of Reading OAE assessments Pearson completed an alignment study of the frameworks with relevant Ohio standards, including Ohio Educational Preparation Standards, Ohio Educator Standards, and Ohio Student Standards.

Preliminary bias prevention and content reviews of the Dance framework were conducted with an Ohio advisory committee. The consensus review elicited revisions to the assessment framework. The Foundations of Reading test went through a similar review when it was initially developed prior to use in the OAE program.

Content Review of Assessment Frameworks

For Dance, a Content Advisory Committee (CAC) composed of experts in the field, participated in a review of the assessment framework. The Foundations of Reading Assessment went through a similar review when it was developed.

As required by the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014), assessment frameworks for licensure need to focus on knowledge, skills, and abilities necessary for safe and effective practice in the profession. Therefore, the role of the CAC in Ohio was to consider if the Dance framework was aligned with expectations for Ohio educators; addressed important areas of Ohio educator knowledge, skills, and abilities clearly and appropriately; and was free from potential bias.

Pearson provided information regarding the background and purpose of the OAE program and directions for completing the review. Committee members reviewed the assessment framework for alignment, completeness, language and terminology, and freedom from bias. A Pearson facilitator recorded the committee-recommended revisions to the Dance framework and updated the framework as necessary. The criteria used to determine if revisions were needed to the framework included the following:

- improving alignment to Ohio and/or national standards
- adding emerging content
- addressing potential bias
- enhancing job-relatedness
- increasing or decreasing the emphasis of one component of content versus another component to align with Ohio needs
- incorporating terminology commonly used in Ohio
- increasing representativeness of content with Ohio educator preparation program curricula

Bias Review of Assessment Frameworks

The preliminary Dance framework provided for the OAE was reviewed for potential bias and then was later reviewed for potential bias by the CAC. The Foundations of Reading framework went through similar reviews when it was developed.

For the review of the Dance framework, Pearson provided information to Bias Review Committee (BRC) members regarding the background, purpose, and policies of the OAE program, and directions for completing the Dance framework review. Committee members were trained in the definition of bias as well as the inclusive and exclusive aspects of bias review. They independently reviewed the competencies included in the Dance framework using criteria pertaining to content, language, offense, stereotypes, fairness, and diversity. Committee members considered each competency as fair only if it met all criteria for fairness and diversity.

3. Conduct Content Validation Survey

Content-related validity evidence is important in licensure testing because it provides evidence that the test adequately represents the content domain of the occupation for which the assessment is developed (AERA, APA, & NCME, 2014). The *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014) require a clear definition of content domain and a rationale to support a claim that the knowledge, skills, and abilities being assessed in a licensure test are required for credential-worthy performance. Pearson conducted a content validation survey with Ohio educators and faculty at Ohio educator preparation programs to gather additional input from experts and stakeholders regarding the importance of the knowledge, skills, and abilities specified in the Dance framework. A content validation survey was conducted for the Foundations of Reading test when it was developed.

Survey participants and ratings. Pearson targeted practicing public school teachers and educator preparation faculty for the Dance Content Validation Survey.

Using an interactive, online survey instrument, survey participants used a 5-point scale to independently rate the components of the framework, as shown below.

How important is the knowledge or skill described by this competency for performing the job of an educator in this field in Ohio public and non-public schools?

1. No importance
2. Little importance
3. Moderate importance
4. Great importance
5. Very great importance

How well does the set of descriptive statements represent important aspects of the competency?

1. Poorly
2. Somewhat
3. Adequately
4. Well
5. Very well

How well does the set of competencies as a whole cover the content knowledge and skills required for teaching in this field in Ohio public and non-public schools?

1. Poorly
2. Somewhat
3. Adequately
4. Well
5. Very well

Survey results. Based on the survey results, all competencies and descriptive statements for Dance met the retention criteria, receiving mean ratings of 3.0 or higher across respondent groups. Appendix B provides the overall mean competency (importance) ratings, mean descriptive statements ratings, and mean composite (the set of all competencies for a field) ratings for the OAE Dance assessment. The subareas and objectives for the Foundations of Reading test also met retention criteria when it was developed.

4. Conduct Bias Item Review

Pearson conducted an item review conference with the Ohio BRC for items in the Dance test bank. The purpose of the meeting was to review Dance test items for potential bias according to established review criteria. As the *Standards for Educational and Psychological Testing* state:

Test developers are responsible for developing tests that measure the intended construct and for minimizing the potential for tests' being affected by construct-irrelevant characteristics, such as linguistic, communicative, cognitive, cultural, physical, or other characteristics. (AERA, APA, & NCME, 2014, p. 64)

Pearson provided BRC committee members with information regarding the background, purpose, and policies of the OAE program, and directions for completing the review. Committee members were provided training in the definition of bias as well as the exclusive and inclusive aspects of bias review. If the committee indicated that an item contained potential bias, they were asked to suggest possible revisions to address the potential bias. The BRC concerns and suggested revisions were shared with the content advisory committee. The Foundations of Reading item bank went through a similar review when it was first developed.

5. Conduct Content Item Review

Pearson conducted an item review with the Dance Content Advisory Committee. Committee members participated in a consensus review of each item in the item bank. Once committee consensus was reached on an item, with or without revisions, each committee member provided an independent item validation judgment. Committee members rated each test item as either "valid" or "not valid" according to the review criteria listed below:

- match to competency or content domain
- accuracy
- freedom from bias
- job-relatedness

An item was rated "valid" if it matched all four of the review criteria; an item was rated "not valid" if it failed to match one or more of the review criteria. When rating items "not valid," committee members indicated which of the four criteria were not met and provided a written reason for the "not valid" rating. The Foundations of Reading item

bank went through a similar review by a content advisory committee during its development.

Pearson analyzed the item validation ratings and reviewed the committee members' item validation comments.

6. Conduct Standard Setting

The process of establishing passing requirements on a test is referred to as standard setting. Standard setting relates directly to the validity of the interpretations made about candidates based on their test scores because the process produces a recommended passing score. The recommended passing score defines the boundary line between the acceptable level of knowledge, skills, and abilities required of an entry-level educator and an unacceptable level of knowledge, skills, and abilities. The *Standards for Educational and Psychological Testing* require that passing scores be set high enough to distinguish adequate from inadequate performance, but not too high to be unreasonably limiting (AERA, APA, & NCME, 2014).

Standard Setting activities were conducted with Ohio educators for Dance and Foundations of Reading. Pearson used an industry-accepted Modified-Angoff Standard Setting process described below.

Composition of Standard Setting Committees. The Standard Setting committees convened for Dance and Foundations of Reading included educators from Ohio institutions of higher education and currently practicing Ohio teachers.

Implementation of the Modified-Angoff Procedure for Multiple-Choice Items. Committee members provided standard setting ratings based on their professional judgment, their knowledge of their test field, their understanding of the qualifications of prospective educators, the content of a test form, and test data, when available, about candidate performance on the test form. This process conforms to Standard 4.21 of the *Standards for Educational and Psychological Testing* which states:

When cut scores defining pass-fail or proficiency levels are based on direct judgments about the adequacy of item or test performances, the judgmental process should be designed so that the participants providing the judgements can bring their knowledge and experience to bear in a reasonable way. (AERA, APA, & NCME, 2014, p. 108)

For standard setting, Pearson provided committee members with background information regarding the assessment validation process employed for the OAE program. To orient them to the content and items of the assessment as seen by candidates, committee members participated in a simulated test-taking activity, during which they reviewed and answered the items on the appropriate test form. Committee members were also provided with the assessment framework for their field and an answer key.

Following the simulated test-taking activity, Pearson presented the committees with the standard setting task and process. For each multiple-choice item on the test form, Dance committee members were asked to respond to the following question:

Imagine a hypothetical group of individuals who are just at the level of knowledge and skills required to perform effectively the job of an initially-licensed educator in this field in Ohio schools.

What percent of this group would answer the item correctly?

For each multiple-choice item on the test form, Foundations of Reading CAC members were asked to respond to the following question:

Imagine a hypothetical group of individuals who are just at the level of knowledge and skills required to perform the job of an entry-level initially-licensed educator in this field in Ohio schools.

What percent of this group would answer the item correctly?

Once the task was introduced, Pearson led a discussion to help committee members understand the concept of the hypothetical reference group. Individuals in the hypothetical reference group are defined as having a sufficient level of knowledge, skills, and abilities needed to serve as initially licensed educators.

Following the training, which included a practice component, committee members provided their professional judgments concerning the performance of the hypothetical group of individuals on the items. Then, committee members participated in a second round of ratings. For the second round, they were provided with an Item Rating Summary Form. The Item Rating Summary Form provided committee members with their own initial item ratings, the median rating for the item, and the distribution of item ratings from other committee members. Before completing the second round of ratings, committee members were instructed on how to read and consider the information included on the Item Rating Summary Form. In the second round, committee members were able to change all, some, or none of their first-round ratings.

For the Foundations of Reading standard setting, committee members participated in a third round where they provided a test-level judgment on the multiple-choice section of the test, responding to the following question:

Imagine a hypothetical individual who is just at the level of knowledge and skills required to perform the job of an entry-level initially-licensed educator in this field in Ohio schools.

What is the number of scorable multiple-choice questions that would be answered correctly by this individual?

Implementation of the Modified-Angoff Procedure for Constructed-Response Items. For the Foundations of Reading test that has constructed-response items, each committee member was asked to respond to the following question:

Imagine a hypothetical individual who is just at the level of knowledge and skills required to perform the job of an entry-level initially-licensed educator in this field in Ohio schools.

For this constructed-response, what score represents the level of response that would be achieved by this individual?

Pearson provided the committee with information on the Foundations of Reading constructed-response items, including the scoring scale(s), performance characteristics, and holistic scoring procedures. Committee members reviewed validated marker responses (i.e., those constructed-response item responses identified as representative sample responses at each score point on the score scale) against the performance characteristics and score scale(s) used to score each response. Committee members then provided their professional judgments concerning the performance of the hypothetical individual on the constructed-response items. For the second round of ratings, for each constructed-response item, committee members were provided with

their own ratings, the distribution of ratings from other committee members, and the frequency distribution of scores assigned from previous administrations of the respective items. As with the multiple-choice items, committee members were provided information about how to read and consider the information provided, and were able to change all, some, or none of their first-round ratings.

For the third round, committee members were provided with their own ratings and the distribution of ratings from other committee members and asked to answer the following question for each constructed-response item:

Imagine a hypothetical individual who is just at the level of knowledge and skills required to perform the job of an entry-level initially-licensed educator in this field in Ohio schools.

What score represents the level of response that would be achieved by this individual?

Evaluation of Process. At the end of the meeting, the Dance and Foundations of Reading committee members were asked to complete an evaluation of the standard setting process.

Passing Standard Calculations. Following the standard setting meetings, Pearson calculated a panel-based recommended passing standard for Dance and Foundations of Reading based on the final ratings provided by the committee members.

7. Establish Passing Standards

A multi-step process was used to establish the passing standard for Dance and Foundations of Reading that involved the Ohio Educator Standards Board, the Capacity Committee of the State Board of Education of Ohio, and the full State Board of Education.

Educator Standards Board. Pearson provided the following information to the Ohio Educator Standards Board:

- a presentation regarding the assessment validation process
- the relationship of the OAE assessments to the corresponding Ohio licensure areas
- panel-recommended passing standard for each OAE test and standard error of measure adjustments to the panel-recommended passing standard

The Educator Standards Board reviewed and discussed the information provided and made a recommendation for a passing score for each test that was provided to the Capacity Committee of the State Board of Education of Ohio.

Capacity Committee. Pearson provided the following information to the Capacity Committee of the State Board of Education of Ohio:

- a presentation regarding the assessment validation process
- the relationship of the OAE assessments to the corresponding Ohio licensure areas
- panel-recommended passing standard for each OAE test and standard error of measure adjustments to the panel-recommended passing standard
- passing score recommendations from the Ohio Educator Standards Board

The Capacity Committee reviewed and discussed the information provided and made a recommendation for a passing score for each test that was provided to the State Board of Education of Ohio.

State Board of Education. Pearson provided the following information to the State Board of Education of Ohio:

- a presentation regarding the assessment validation process
- the relationship of the OAE assessments to the corresponding Ohio licensure areas
- panel-recommended passing standard for each OAE test and standard error of measure adjustments to the panel-recommended passing standard
- passing score recommendations from the Ohio Educator Standards Board
- passing score recommendations from the Capacity Committee of the State Board of Education of Ohio

The State Board of Education reviewed and discussed the information provided and determined the passing score for each test. The State Board of Education of Ohio approved passing scores were implemented when each test became operational.

References

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Appendices

Appendix A: OAE Alignment Studies

Appendix B: Dance Content Validation Survey Results

Appendix A: OAE Alignment Studies

Alignment of OAE Dance Assessment Framework with Ohio-specified Standards

This alignment study identifies the national and/or Ohio educational standards that are addressed in whole or in part by each competency of the assessment framework. An indication of alignment does not necessarily imply complete congruence of the content of an OAE test competency with the relevant standard. The information in this document is subject to change if revisions are made to the assessment framework. Any changes will fully supersede the information contained in this draft.

Competencies		Ohio Educational Preparation Standards	Ohio Educator Standards	Ohio Student Standards
Dance		Multi-Age Dance: 2008 Modified Ohio/NASD Program Standards (Grades PreK-12)	Ohio Standards for the Teaching Profession	2012 Revised Fine Arts Standards - Dance
<u>Dance Movement and Creation</u>				
0001	Understand concepts fundamental to dancing and creating dances and their relationship to learning and performance.	1.1; 1.3; 2.2	2	K-2 Progress Point B (PE) (PR); Progress Point C (PE)(RE) 3-5 Progress Point B (PE) (PR); Progress Point C (PE) (PR) (RE) 6-8 Progress Point A (PE) (PR), C (PE) (PR) 9-12 Progress Point D (RE)

Competencies		Ohio Educational Preparation Standards	Ohio Educator Standards	Ohio Student Standards
Dance		Multi-Age Dance: 2008 Modified Ohio/NASD Program Standards (Grades PreK-12)	Ohio Standards for the Teaching Profession	2012 Revised Fine Arts Standards - Dance
002	Understand and apply basic elements, principles, processes, and structures of choreography.	2.2; 4.5	2	K-2 Progress Point D (PR) (RE); 3-5 Progress Point E, F ((PE) (PR) (RE)); 6-8 Progress Point C, D (PE) (PR) (RE); 9-12 Progress Point C, D, E (PE) (PR) (RE)
003	Understand and apply relevant principles of interpretation and analysis important for responding to and reflecting on choreography and dance performance.	1.2; 1.3; 2.2; 4.5	2	K-2 Progress Point C (PE)(RE); Progress Point D (PR) (RE); 3-5 Progress Point D (RE); Progress Point E, D, F ((PE) (PR) (RE)); Progress Point C (PE) (PR) (RE) 6-8 Progress Point A, C (PE) (PR); Progress Point C, D, G, H (PE) (PR) (RE); 9-12 Progress Point C, D, E, F, G (PE) (PR) (RE)

Competencies		Ohio Educational Preparation Standards	Ohio Educator Standards	Ohio Student Standards
Dance		Multi-Age Dance: 2008 Modified Ohio/NASD Program Standards (Grades PreK-12)	Ohio Standards for the Teaching Profession	2012 Revised Fine Arts Standards - Dance
004	Understand principles and practices of dance performance and production.	1.3; 2.2; 4.5	2	
005	Understand human anatomy and kinesiology, the development of kinesthetic awareness, principles of physical conditioning and training, and safe and healthful practices as related to dance learning and performing.	2.2; 4.3	2	K-2 Progress Point C (PE) (RE); 3-5 Progress Point C (PE) (PR) (RE); 6-8 Progress Point A (PE) (PR); Progress Point F (PE) (PR) (RE); 9-12 Progress Point B (PE) (PR)
<u>Dance in Society</u>				
006	Understand the history and fundamental characteristics of major forms of concert and performance dance globally, including skills and concepts important to learning and performing diverse genres of concert and theatrical dances.	1.2; 1.3; 2.1; 2.2	2	K-2 Progress Point A, B (PE) (PR) (RE); 3-5 Progress Point A (PE) (PR) (RE); 6-8 Progress Point G, I (PE) (PR) (RE); 9-12 Progress Point A, B (PE) (PR) (RE)

Competencies		Ohio Educational Preparation Standards	Ohio Educator Standards	Ohio Student Standards
Dance		Multi-Age Dance: 2008 Modified Ohio/NASD Program Standards (Grades PreK-12)	Ohio Standards for the Teaching Profession	2012 Revised Fine Arts Standards - Dance
007	Understand the history and fundamental characteristics of major forms of traditional and cultural participatory dances and the skills and concepts important to learning and performing diverse genres of participatory dance.	1.1; 1.2; 2.1; 2.2	2	K-2 Progress Point A, B (PE) (PR) (RE); 3-5 Progress Point A (PE) (PR) (RE); 6-8 Progress Point B, G, I (PE) (PR) (RE); 9-12 Progress Point A, B (PE) (PR) (RE)
008	Demonstrate knowledge of the characteristics, functions, and practice of dance within various global cultures.	1.1; 1.2; 1.3; 2.1; 2.2	2	K-2 Progress Point A, B (PE) (PR) (RE); 3-5 Progress Point A (PE) (PR) (RE); 6-8 Progress Point G, I (PE) (PR) (RE); 9-12 Progress Point A, B (PE) (PR) (RE)

Competencies		Ohio Educational Preparation Standards	Ohio Educator Standards	Ohio Student Standards
Dance		Multi-Age Dance: 2008 Modified Ohio/NASD Program Standards (Grades PreK-12)	Ohio Standards for the Teaching Profession	2012 Revised Fine Arts Standards - Dance
009	Understand the connections between dance and the other arts, other content areas, and lifelong interests and activities.	1.2; 1.3; 4.6	2	3-5 Progress Point D (RE); 6-8 Progress Point E, G (RE); 9-12 Progress Point B; E (PE) (PR) (RE)
<u>Dance Education</u>				
0010	Understand the role of dance education in the United States and the characteristics of constructive learning environments.	1.1; 3-4; 5.1	1; 4; 5	
0011	Demonstrate knowledge of strategies for effective dance instruction and assessment of student learning.	3.1; 3.3-3.4; 4.1-4.5; 5.1-5.3; 6.4-6.5; 7.1-7.5	1-4; 6; 7	

Alignment of Foundations of Reading Test Framework with Ohio-specified Standards (July 2016)

This alignment study identifies the national and/or Ohio educational standards that are addressed in whole or in part by each objective of the assessment framework. An indication of alignment does not necessarily imply complete congruence of the content of a test objective with the relevant standard. The information in this document is subject to change if revisions are made to the assessment framework. Any changes will fully supersede the information contained in this document.

Objectives		Ohio Educator Standards	Ohio Student Standards
Foundations of Reading		Ohio Reading Competencies, Pre K–3 and 4–9 (Knowledge) (January 2014)	Ohio's Learning Standards: English Language Arts Standards (June 2010)
<u>Foundations of Reading Development</u>			
0001	Understand phonological and phonemic awareness.	A.1, 4–6; F.3–5; G.3	RF.K–1.2
0002	Understand concepts of print and the alphabetic principle.	A.2–4; B.4; F.3–5; G.3	RF.K–1.1
0003	Understand the role of phonics in promoting reading development	A.5–6; B.1–4; C.1–2; D.1, 3; E.4; F.3–5; G.3	RF.K–5.3; RF.K–5.4
0004	Understand word analysis skills and strategies.	B.3; C.2; D.2–4; E.4; F.3–5; G.3	RF.K–5.3; RF.K–5.4; L.K–9.4
<u>Development of Reading Comprehension</u>			
0005	Understand vocabulary development.	D.1–6; E.4; F.3–5; G.3	L.K–9.4; L.K–9.5; L.K–9.6; RL.K–9.4; RI.K–9.4
0006	Understand how to apply reading comprehension skills and strategies to imaginative/literary texts.	C.2–3; E.1–5; F.3–5; G.3	RL.K–9.1; RL.K–9.2; RL.K–9.3; RL.K–9.4; RL.K–9.5; RL.K–9.6; RL.K–9.7; RL.K–9.9; RL.K–9.10

Objectives		Ohio Educator Standards	Ohio Student Standards
Foundations of Reading		Ohio Reading Competencies, Pre K–3 and 4–9 (Knowledge) (January 2014)	Ohio's Learning Standards: English Language Arts Standards (June 2010)
0007	Understand how to apply reading comprehension skills and strategies to informational/expository texts.	C.2–3; E.1–5; F.3–5; G.3	RI.K–9.1; RI.K–9.2; RI.K–9.3; RI.K–9.4; RI.K–9.5; RI.K–9.6; RI.K–9.7; RI.K–9.8; RI.K–9.9; RI.K–9.10
<u>Reading Assessment and Instruction</u>			
0008	Understand formal and informal methods for assessing reading development.	I.1–4	N/A
0009	Understand multiple approaches to reading instruction.	F.1–5; G. 2–4; H.1–3; I.4–5	N/A

Appendix B:

Dance Content Validation Survey Results

Appendix B: Dance Content Validation Survey Results

Content validation surveys were conducted to gather evidence that showed each OAE assessment framework adequately reflects the knowledge and skills it is intended to measure. Survey participants (practicing teachers and faculty preparing teachers) were asked to rate the importance of the knowledge and skills described by each competency and accompanying descriptive statements on a 5-point scale. The following table depicts the mean ratings for the OAE Dance assessment.

Ohio Assessments for Educators (OAE)
 Fall 2015 Content Validation Survey
 Overall Mean Rating Report
 Final Results – Fall 2015

Field	Mean Competency Importance Ratings ¹		Mean Descriptive Statement Ratings ²		Mean Composite Ratings ²	
	Teachers	Faculty	Teachers	Faculty	Teachers	Faculty
011 Dance	4.17	4.67	4.09	4.39	4.14	4.33

¹ (1 = No importance, 2 = Little importance, 3 = Moderate importance, 4 = Great importance, 5 = Very great importance)

² (1 = Poorly, 2 = Somewhat, 3 = Adequately, 4 = Well, 5 = Very well)

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