

Questions & Answers Regarding Alaska Assessments

The purpose of this document is to provide additional background information regarding the test development process for the Alaska Standards Based Assessments (SBAs) and High School Graduation Qualifying Examination (HSGQE). This document will be available in PDF format via the web, and used in District Test Coordinator Training, Principal Conferences, or other conferences as appropriate.

What are Content Standards, Performance Standards, and Grade-Level Expectations?

Content standards are the overarching goals that describe, in the broadest terms, what all students in Alaska should know and be able to do. Performance standards state what students should know and be able to do at grades 5-7, 8-10, 11-14, and 15-18. Grade-level expectations are specific statements of the knowledge and/or skills that students are expected to demonstrate at each grade level. They serve as checkpoints that monitor progress toward the performance standards and ultimately the content standards. The grade-level expectations do not replace the performance standards; rather, they serve to explicate and clarify the standards. They also serve to define and communicate eligible content, or the range of knowledge and skills from which instruction and the new assessments are designed.

What process was used to develop the Grade-Level Expectations?

The grade-level expectations were first developed by Alaska educators to indicate the essential skills necessary for success on the norm-referenced assessment that was given in grades 4, 5, 7, and 9 and further to determine what would be necessary to augment that assessment to meet the *No Child Left Behind* requirements. This work began in 2003 with a group of approximately 90 educators representing all geographic areas of Alaska. Draft documents were developed and posted on the Alaska Department of Education and Early Development (EED) Web page for feedback from stakeholders. In January 2004 Alaska educators, consisting of content-area experts throughout the State of Alaska, reviewed the proposed grade-level expectations for content rigor and appropriate alignment to the currently adopted performance standards. In March 2004 the grade-level expectations went through a larger review throughout the State of Alaska to ensure that they clearly communicated what students should know and be able to do at each grade level. They were approved by the State Board of Education and Early Development on March 16, 2004, and were adopted into state regulation by the Board on June 10, 2005.

What is the process used to ensure that test questions measure the Alaska grade-level expectations?

For an assessment to be valid there must be a close correspondence or alignment between the content of the test and the performance standards and the grade-level expectations. Basically, without a strong association between the test questions (items) and the performance standards and grade-level expectations, the questions on the test will lack meaning and purpose. The process used to determine that the test questions are aligned with the appropriate Alaska content standards and grade-level expectations involves many steps, ranging from the actual writing of the test questions to the external review of the test questions prior to inclusion on an actual test form. Every step of this process involves Alaska educators who review test questions to ensure that they measure what they are intended to measure. In addition, all test questions are also reviewed by an independent team of both Alaska content-area experts and experts from across the entire country. This validation team of content-area experts is chosen for their expertise in the field of teaching and/or curriculum development in reading, writing, and/or mathematics. The panel members review each test question for alignment between the grade-level expectations/performance standards and the test questions.

What are the steps in the item and test development process?

The steps in the testing contractor's item and test development process are designed to meet the *Standards for Educational and Psychological Testing* (AERA, NCME, APA, 1999). The test and item development process is described below.

- 1.** Analysis of the Alaska content performance standards and grade-level expectations and development of preliminary test blueprints, including the standards to be assessed per subject area and grade arranged by the relative importance of the content to be assessed (domains of content)
- 2.** Development of preliminary question specifications and style guide *
- 3.** Development of preliminary proficiency level descriptors (what students should know and be able to do)
- 4.** Selection of qualified item writers, including Alaska educators
- 5.** Development of item-writing workshop training materials
- 6.** Training of test development specialists and item writers, including Alaska educators, to write test questions
- 7.** Writing test questions that match the Alaska performance standards and grade-level expectations, including questions that are free of bias, fairness, and sensitivity concerns
- 8.** Conducting and monitoring item reviews and quality processes
- 9.** Preparing passages and questions for review by the Alaska Department of Education and Early Development and committees of Alaska educators
- 10.** Selecting and assembling questions into test forms for field testing
- 11.** Conducting field test of the test questions
- 12.** Reviewing test questions and associated statistics after field testing
- 13.** Selecting and assembling test questions into operational test forms

* Preliminary question specifications and style guidelines are often called item specifications. The creation of item specifications is one of the key requirements for the development of a high-quality standards-based assessment. They are documents that serve to delineate the general characteristics of the questions that are to be written for each content area at a given grade level. They provide the question writers with a detailed set of instructions for both writing and reviewing the questions. For example, the item specifications will include such information as the relative importance of the content to be assessed at a given grade level, the standards and grade-level expectations to be measured, and how difficult or challenging the test questions should be. They will also provide the question writers with suggestions or guidelines concerning the cognitive level for the learning targets or suggestions for how best to write a question to measure a particular learning target.

Who writes the test questions?

The test questions are written by Alaska educators, the testing contractor's professional test question writers, and professional writers from across the country who have successfully written test questions for large-scale assessment programs. All writers are experienced writers, teachers, or former teachers who have a great deal of specialized knowledge in the subject area of their expertise. In addition, all writers must have good technical writing skills. The qualifications the testing contractor used to select writers include the following:

- A bachelor's degree or higher in reading, writing, mathematics, curriculum and instruction, and/or related field
- In-depth understanding and knowledge of the special considerations involving the writing of test questions for the Alaska program
- In-depth understanding and knowledge of the special considerations involving the writing of standards-based test questions, including questions that require students to select an answer (multiple-choice question) and questions that require students to construct a response (constructed response question)
- For the writing tests, in-depth understanding and knowledge of the special considerations involving the development of writing prompts, with scoring guidelines

All item writers are provided with an in-depth training workshop, coupled with one-on-one writing sessions with the testing contractor's content-area test development specialists and lead item writers. Writers are trained on the following topics:

- Alignment with Alaska content standards, performance standards, and grade-level expectations
- Cognitive levels, including depth of knowledge
- Skill-specific and balanced test questions for the grade level
- Contextual relevance
- Developmentally appropriate structure and content
- Item-writing technical quality issues
- Style considerations and item specifications approved by the Alaska Department of Education and Early Development

Are Alaska educators involved in the item and test development process?

Yes, educators from diverse Alaska geographic and demographic populations are involved in the item and test development process throughout all stages of the process, including but not limited to the development of the grade-level expectations, deciding what the test should measure, writing and reviewing of test questions, and making decisions as to what test questions should actually be included on the test. The table below summarizes the meetings that were held in Alaska. The table also shows the number of Alaska educators who were involved in each step of the process.

Table C-1. Item and Test Development Meetings

Date	Meeting	Number of Alaska educators
January 2004	Grade-Level Expectations Content Review	49
March 2004	Grade-Level Expectations Review	77
April 2004	Item writer orientation and training; writing test questions	51
April 2004	Development of preliminary proficiency level descriptors	26
August 2004	Review of newly developed passages and questions	60
September 2004	Review of test questions to make sure that the questions were free of bias/fairness/sensitivity issues	14
December 2004	Review of newly developed passages and items for field testing in spring 2005	60
December 2004	Review of test questions to make sure that the questions were free of bias/fairness/sensitivity issues	12
December 2004	Review of test questions to be included in the pool of questions for potential use on the spring 2005 test	60
February 2005	Review of passages to make sure that the passages were free of bias/fairness/sensitivity issues	12
May 2005	Standards validation; finalization of proficiency level descriptors	72
August 2005	Review of newly developed passages and items for field testing in spring 2006	60
August 2005	Review of test questions to make sure that the questions are free of bias/fairness/sensitivity issues	12
August 2005	Review of test questions to be included in the pool of items for potential use on the spring 2006 test	60

What is the role of the Alaska Test Content Committee and what is the process used in the content review of the test questions?

Prior to field testing, all newly developed test items are submitted to content committees for review. The content committees consist of Alaska teachers and subject-area supervisors from school districts throughout Alaska. Committee members are selected by the Alaska Department of Education and Early Development. The committee consists of approximately 60 educators, 20 for each content area. The primary responsibility of the content committee is to evaluate items with regard to quality and content classification, including grade-level appropriateness, estimated difficulty, depth of knowledge, and whether or not a test question might create a source of challenge for any student. As they review test questions, they often suggest revisions and make recommendations for how the questions might be classification in terms of what the questions measure. During this review, the committee might reject some questions. In which case, the committee may suggest another question and/or a suggested replacement question is provided by the testing company's facilitators. The Alaska Test Content Committee also reviews all test questions for how well they adhere to the principles of universal design, including language demand and issues of bias, fairness, and sensitivity.

Prior to reviewing test questions, the committee receives in-depth training conducted by a qualified trainer. The training includes guidelines for reviewing test questions, information, instructions, or stimuli for quality, content, and freedom from issues of bias, fairness, and sensitivity, as well as for the following categories outlined below.

1. Grade-level-expectation alignment (Does the test question measure what it is intended to measure?)
2. Grade-Level Appropriateness (Is the test question written at grade level, below grade level, or above grade level?)
3. Difficulty Level (Does the test question seem easy, medium, or difficult?)
4. Depth of Knowledge (Does the test question measure recall of information, basic application, or does it measure strategic thinking?)
5. Appropriate Language Demand (Is the language demand appropriate for the students in the grade level?)

After training, committee members are divided into groups according to content area and grade level. Test questions are read and review by committee members, and questions are approved for testing, accepted, with revision, or rejected. All comments are compiled, and the testing contractor uses the input from the Alaska Content Review Committee as final questions are further reviewed and revised prior to actual field testing. Committee members are required to sign a Confidentiality Agreement, and strict security measures are in place to ensure that secure materials do not leave the meeting rooms.

What procedures are used by writers to ensure that the test questions are free of issues of bias/fairness/sensitivity?

One of the most important steps in the development of any new test is to ensure balanced treatment and control of potential bias, stereotyping, and insensitivity in the test questions or in the test-related materials. The developers of the Alaska tests and the Alaska Department of Education and Early Development are committed to the development of test questions that avoid any content that might unfairly advantage or disadvantage any student subgroup. Writers of test questions, test developers, and reviewers of test questions are trained to write and review questions for issues of bias, fairness, and sensitivity. Item writer training also includes an awareness of and sensitivity to issues of cultural and regional diversity. The training includes the following:

- Did the questions, prompts, stimulus materials, graphs, charts:
 - Demean any religious, ethnic, cultural, or social group?
 - Portray anyone or any group in a stereotypical manner?
 - Contain any other forms of bias, including gender, regional or geographical, ethnic or cultural, socioeconomic or class, religious, age-related bias, or bias against persons with disabilities?
- Were there any culturally specific sets of knowledge, terms, difficult words, and/or figures of speech that might disadvantage a group of students?
- Were the questions and activities reflected in the questions or test as a whole relevant to the life experiences of the students responding to the questions?
- As a whole, did the test have a balance across ethnic groups and across genders, including an adequate representation of:
 - Females and males in both traditional and nontraditional roles?
 - Female and male names?
 - Minority groups in various environments and occupations?
 - Minority groups, including the use of ethnic names?
- Wherever possible, did the content show minority groups in everyday situations and groups depicted as fully integrated in the society, reflecting the multicultural composition of society as a whole?

What is the role of the Alaska Bias/Fairness/Sensitivity Review Committee, and what is the process used in the bias/fairness/sensitivity review?

Prior to field testing, all newly developed test questions for grades 3-9 and high school are submitted to a Bias/Fairness/Sensitivity Committee for review. This committee consists of 12 members who represent the ethnic diversity of Alaska students, including members who have expertise with special needs students. The committee's primary responsibility is to evaluate all passages and test questions as to acceptability with regard to bias, fairness, and sensitivity issues. The committee also makes recommendations for changes or deletions of questions in order to remove any potential for bias, fairness, and/or sensitivity. The committee provides guidance to the testing contractor and the Alaska Department of Education and Early Development to ensure balanced treatment and control of potential bias, stereotyping, and insensitivity in the passages and test questions that are included in the assessments. Committee members are required to sign a Confidentiality Agreement, and strict security measures are in place to ensure that secure materials do not leave the meeting rooms.

Prior to reviewing test questions, the multi-ethnic committee receives in-depth training conducted by a qualified trainer. Training materials include a manual developed by the contractor. The manual includes guidelines for reviewing test questions, information, instructions, or stimuli in order to identify issues of potential bias based on gender, ethnicity, race, social class, region, religion, disability, or experiences that might not be unique to a subset of students. After training, all reading, writing, and mathematics items are read by committee members. Each member is asked to note any bias, fairness, and/or sensitivity comments. All comments are compiled, and the recommended committee actions to be taken on these questions are recorded by the contractor. The committee's recommendations are then provided to the Alaska Department of Education and Early Development, and final decisions as to whether a particular question or passage should be rejected and/or revised to remove the potential area of concern are made by EED.

What are Proficiency Level Descriptors?

Proficiency level descriptors are statements that describe the knowledge and skills expected at different proficiency levels with respect to the content standards, performance standards, and grade-level expectations. Alaska has four proficiency levels: far below proficient, below proficient, proficient, and advanced. The proficiency level descriptors describe the expected level of performance at each of these four levels.

What process was used to develop the Proficiency Level Descriptors?

The proficiency level descriptors were initially developed by a group of Alaska educators and the testing contractor's content area specialists on June 3, 2004. The Alaska educators were provided initial training by the testing contractor. Training included background information about the grade-level expectations, purpose and use of the proficiency level descriptors, and the process that would be used to develop the descriptors. Following the training, each content area was divided into subcommittees by content area (reading, writing, and mathematics). Each content committee consisted of nine Alaska educators. The subcommittees of Alaska educators reviewed and revised the draft preliminary proficiency level descriptors using the Alaska grade-level expectations and the existing Benchmark Proficiency Level Descriptors. The committees reviewed the draft preliminary proficiency level descriptors and revised them to clearly

- define what students in Alaska should know and be able to do based on the grade-level expectations,
- show how students would demonstrate knowledge and skill based on the grade-level expectations, and
- define the level of knowledge and skill necessary for each proficiency level.

Draft preliminary proficiency level descriptors for each grade level were then posted on the EED Web site. They were further reviewed by Alaska educators who participated in the standards validation meeting held in May 2005. Based on additional input from Alaska educators, the descriptors were finalized in June 2005.

In the past, the reading and writing sections of the test seemed more engaging. Some decorative artwork was used, some passages were presented in a type font that was unique, and shading was often used. Why are these features no longer used?

For an assessment to be fair to all students, test questions must have a clear format. Images, pictures, and text that may not be necessary (e.g., sidebars, overlays, callout boxes, shading, visual crowding, and anything that is simply decorative in nature and does not serve a purpose) are distracting to students and must be avoided. As a result, pictures, illustrations, and graphics are used *only* if they provide essential information that contributes to the understanding of the constructs that test questions are intended to measure. Overall, the test must have an appearance that is clean and organized. It is vitally important that test questions are presented in a way that allows for maximum readability for all students.

What processes are used to ensure that the test questions are developed to be fair to all students?

The assessments are designed using the principles of universal design. The principles of universal design are incorporated throughout all stages of the test development process to allow participation of the widest possible range of students. Universally designed assessments are based on the premise that each student in school is a part of the population to be tested and that testing results should not be affected by disability, gender, race, or English language ability. The testing contractors were trained by the members of the National Center on Educational Outcomes (NCEO). As test items are written and reviewed, the writers adhere closely to the following guidelines for universal design.

Test questions measure what they are intended to measure. Item-writing training includes assuring that writers and reviewers have a clear understanding of Alaska’s content performance standards and grade-level expectations. During all phases of test development, test questions are presented with the content performance standard and the grade-level expectation to ensure that each question measures what it is intended to measure. Careful consideration of grade-level expectations is important in determining which skills involved in responding to a question are extraneous and which are relevant to what is being tested.

Test questions have concise and readable text. Linguistic demands of stimuli and test questions can interfere with a student’s ability to demonstrate knowledge of the construct being assessed. Test questions are written to adhere to the following guidelines:

- Simple, clear, commonly used words are used whenever possible.
- Unnecessary words and extraneous text are omitted.
- Vocabulary and sentence complexity are appropriate for the grade level assessed.
- Technical terms and abbreviations are used only if they are related to the content being measured.
- Definitions and examples are clear and understandable.

What is the reading vocabulary level for tests other than reading tests (e.g., Mathematics)?

Subject areas such as mathematics contain many content-specific vocabulary terms. These terms make it impossible to use the standard methods available for determining the reading level of test questions. Wherever it is practicable and reasonable, every effort is made to keep the vocabulary one grade level below the tested grade level. As writers develop test questions, there is a conscious consideration made to ensure that each test question is evaluating a student’s mathematics ability versus the student’s reading ability. Resources used to verify the vocabulary level are the *EDL Core Vocabularies* and the *Children’s Writer’s Word Book*.

In addition, every mathematics test question is taken before several different committees comprised of Alaska grade-level experts in the field of mathematics education. They review each question from the perspective of the students they teach, and they determine the validity of the vocabulary used.

What is the process used for selecting reading passages?

The Alaska Department of Education & Early Development and committees of Alaska educators work with the testing contractor to determine the types of passage genres that are to be included on the Alaska assessments. Passage finders and reading content specialists who have teaching experience at specific grade levels are given formal training on the specific requirements of the Alaska assessments. Passage finders are then given assignments for finding the required types of passages for each grade level. Passages are submitted to the testing contractor's reading test development team for screening and editing internally. The team screens and edits passages for

- interest and accuracy of information in a passage to a particular grade level
- grade-level appropriateness of passage topic and vocabulary
- rich passage content to support the development of high-quality test questions
- bias, sensitivity, and fairness issues
- readability considerations and concerns

Passages that survive the testing contractor's extensive screening process are prepared for a formal committee passage review by Alaska grade-level reading teachers who read and review the passages for the same criteria listed above. The Alaska Bias and Sensitivity Committee also reads and reviews the same passages for issues related to bias, sensitivity, and fairness. Passages are accepted, edited, and/or rejected by both committees of Alaska educators. Comments and concerns are noted and the Alaska Department of Education & Early Development provides the testing contractor with the final determination about particular questions raised for any passage. Passages are then selected to move forward for development of test questions based on the specific requirements for each grade-level assessment such as the percent of fiction and nonfiction, gender and ethnicity considerations, and diversity of passage topics.

How are the readabilities for the passages determined?

The readability of a passage is a judgmental process made by Alaska classroom teachers, the testing contractor's reading content specialists, and other individuals who understand each particular grade level and children of a particular age group. In addition, formal readability programs are also used by the testing contractor to provide a "snapshot" of a passage's reading difficulty based on sentence structure, length of words, etc. All of this information, along with the classroom context and content appropriateness of a passage, is taken into consideration when placing a passage at a particular grade. The passages are further reviewed by Alaska grade-level reading teachers and evaluated for appropriateness at that particular grade level.

How is the length of a passage determined?

Passages must allow for the development of a variety of test questions. As a result, passage length will vary depending on the grade level and the type of genre of a particular passage. The testing contractor's passage finders and reading content specialists all have classroom teaching experience at particular grade levels and are familiar with acceptable and appropriate passage length for various age, grade, and student populations. In formal committee reviews, Alaska grade-level teachers evaluate the passages for appropriate grade-level length. They use their professional content knowledge, expertise, and teaching experience to evaluate each passage.

What is the reason for the number of passages per grade on the reading test?

The number of passages included on the assessment varies by grade level. Factors that influence the number of passages at each grade level are the total number of questions that must be assessed, including the number of multiple-choice and constructed response questions, and the percentage of types of questions that must be included, as determined by the grade-level expectations.

For fiction selections, why is the term “passage” used instead of the term “story?”

The term “passage” is used as a generic description of a piece of writing. The Alaska reading grade-level expectations require students to be able to identify particular genres. For example, using the term “story” would automatically indicate a piece of fiction; therefore, the term “passage” is used because it can refer to any type of text that may appear on the assessment. This term allows for fair and equal testing of all students.

Are materials available to help prepare students for the assessments?

The EED Web site currently contains examples of both multiple-choice test questions and constructed-response test questions and what these test questions are intended to measure. In addition to providing information about the test questions, samples of student responses for the constructed-response test questions and the writing extended-response task are also provided. In The Alaska Department of Education and Early Development will also be posting practice tests on the EED Web site.