

CONTENT STANDARDS AND ASSESSMENTS

Section 29 of 2015 Senate Bill No. 2031 directs the Legislative Management to study content standards and assessments. With respect to content standards, the study must:

- Provide for a review of the content standards applicable to all grade levels in this state, from kindergarten through grade 12, in the areas of English language arts and mathematics;
- Compare the content standards of this state to those of other states that are recognized as having high academic achievement levels; and
- Review the standards development process.

With respect to assessments, the study must:

- Review the purpose of general and alternate student assessments;
- Examine the availability of existing and proposed assessment models; and
- Examine the assessments utilized by other states that are recognized as having high academic achievement levels.

Lastly, the study must review those sections of the federal Elementary and Secondary Education Act [20 U.S.C. 6301, et seq.] that address standards, assessments, accountability, and local flexibility, and any recent pertinent regulatory changes or policy statements issued by the United States Department of Education.

CONTENT STANDARDS

What is a standard?

A standard is a concise, written description of that which students are expected to know and be able to do at a specific stage of their education. It is an educational objective applicable to a particular point, which is often the end of a course, a grade level, or a grade span. A standard does not prescribe any particular teaching practice, curriculum, or assessment method.

Common features of standards

Standards are generally organized by subject matter--e.g. English language arts, mathematics, science, social studies, etc. These are the same general subject-matter categories that schools have used for decades. Within each subject-matter category, standards are usually organized by grade level or grade span. The sequencing of the standards is called a learning progression. There are two main characteristics inherent in all sequential standards:

- The descriptions for each standard address the specific learning needs and abilities of students at a particular stage of their intellectual, emotional, social, and physical development; and
- The standards reflect clearly articulated sequences, so that each learning expectation builds upon previous expectations and at the same time prepares students for more challenging concepts and more sophisticated coursework at the next level.

The basic purpose of this organizational framework is to ensure that students are being exposed to developmentally appropriate material and that teachers are sequencing student learning effectively. Clearly, it is not desirable to utilize material that is too advanced or too rudimentary and it is not desirable to have inadvertent repetition of material that was taught in earlier grades.

Standards generally include overarching, long-term educational goals. These goals tend to reference the knowledge, skills, work habits, and character traits that teachers and schools are expected to foster. Examples of educational goals include critical thinking, logical reasoning, and problem-solving skills. Other goals might be acceptable levels of oral and written communication or technological literacy. Some goals are less easily measurable. These could include perseverance and work ethic or valuing and understanding other perspectives, races, and cultures.

Finally, standards generally include references to content. Regardless of how they are described or how they are sequenced, mathematics standards focus on quantitative concepts, principles, and reasoning. Standards in other areas such as history or social studies tend to reflect greater content-related disparities due to the selection of facts and desired skill sets, as well as politics and ideologies. Again, depending on the authors, certain standards are more precise, exacting, and prescriptive, while others may be broader and more generally

descriptive. One standard might indicate the specific punctuation marks that students should know how to use at a particular grade level, while others might merely reference the proper use of grammatical conventions. [See, generally, *The Glossary of Education Reform*, <http://edglossary.org/learning-standards/>.]

Examples of Standards

The following examples of standards are taken from the North Dakota English Language Arts Standards:

Reading

- Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
[Grades 9-10 Reading Standards for Literature RI.2]
- Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).
[Grades 9-10 Reading Standards for Informational Text RI.4]
- Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.
[Grades 9-10 Reading Standards for Informational Text RI.8]

Writing

- Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
 - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.
 - b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level and concerns.
 - c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
 - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
 - e. Provide a concluding statement or section that follows from and supports the argument presented.
[Grades 9-10 Writing Standards W1]
- Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
 - a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
 - b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
 - c. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
 - d. Use precise language and domain-specific vocabulary to manage the complexity of the topic.
 - e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
 - f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic.)
[Grades 9-10 Writing Standards W2]

- Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.
 - a. Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.
 - b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.
 - c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole.
 - d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.
 - e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.
[Grades 9-10 Writing Standards W3]

Language

- Demonstrate command of the conventions of standard English grammar and usage when writing and speaking.
 - a. Use parallel structure.
 - b. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to convey specific meanings and add variety and interest to writing or presentations.
[Grades 9-10 Language Standards L1]
- Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening. Write and edit work so that it conforms to the guidelines in a style manual (e.g., *MLA Handbook*, *Turabian's Manual for Writers*) appropriate for the discipline and writing type.
[Grades 9-10 Language Standards L3]
- Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in the text.
 - b. Analyze nuances in the meaning of words with similar denotations.
[Grades 9-10 Language Standards L5]

Speaking and listening

- Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
 - a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
 - b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
 - c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
 - d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
[Grades 9-10 Speaking and Listening Standards SL1]

- Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.
[Grades 9-10 Speaking and Listening Standards SL3]
- Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
[Grades 9-10 Speaking and Listening Standards SL4]

Purposes of Standards

Standards are historically rooted in the concept of school improvement--i.e. improving the effectiveness of schools, improving the quality and consistency of teachers, and improving the academic achievement of students.

Standards can be used to provide consistency and commonality with respect to that which is taught in different states, in different schools, and in different classrooms. They can be used to ensure that students will be taught specific skills and acquire a defined body of knowledge within the scope of their educational experience.

Standards can be used to impose a level of accountability, at least to the extent of determining whether students are being exposed to the requisite material. If students cannot demonstrate an acceptable performance level, measures can be instituted to address such matters.

Standards can be used to prioritize the teaching of certain subjects, concepts, facts, perspectives, and skills in accordance with parameters set by governing entities and they can be used to accelerate or decelerate student learning, so that movement from one level to another is manageable in an organized fashion.

Standards can be used to establish academic expectations for schools, teachers, and students with respect to that which is taught during a prescribed period and the level or degree to which it is taught and can be adjusted to reflect the desired level of complexity and sophistication. They can also be used to promote a logical progression of instruction and to avoid redundancy or unnecessary repetition as students move from one grade level to another.

Standards can be used to influence the way students are taught. Standards may be written to emphasize factual content and memorization or deeper comprehension and the application of knowledge and skills to solve complex problems, evaluate ambiguous issues, complete challenging tasks, or produce sophisticated work products.

Standards can be used as a way to ensure equity and fairness within an educational system, so that minority and disadvantaged students are given the same educational opportunities and held to the same expectations as other students.

Finally, standards can promote cost-savings in the acquisition of textbooks and other educational resources for students and thereby promote greater sharing and collaboration among the instructional staff.

[See, generally, *The Glossary of Education Reform*, <http://edglossary.org/learning-standards/>.]

ASSESSMENTS

What is an Assessment?

An assessment is a tool used to evaluate, measure, and document things such as a student's academic readiness, learning progress, and skill acquisition. Assessments are used to determine a four-year-old's readiness for kindergarten and a 12th grade student's comprehension of advanced physics.

Each assessment has a different purpose. The purpose dictates the design of the assessment. Measuring a student's perceived ability or readiness to learn requires a different type of assessment than one which measures the acquisition of certain skills or knowledge. Measuring a student's recollection of facts requires a different type of assessment than one which measures analytical and comprehension skills. Assessments can also be crafted to identify academic strengths and weaknesses so that teachers are better able to provide specialized academic support, educational programming, or social services.

Types of Assessments

Assessments come in many forms, depending on the purpose for which they are designed. Following is a description of the more commonly referenced types of assessments.

- Diagnostic assessments attempt to quantify that which a student already knows about a subject or a topic. They are generally given at the beginning of a school year or at the beginning of a new unit of study.
- Formative assessments are used to determine a student's progress toward a defined learning goal. They are given throughout the learning process.
- Interim or benchmark assessments are used to predict a student's performance on summative assessments. Interim assessments are therefore given periodically, and generally at the end of a grading period.
- Summative assessments are used to determine a student's mastery of a topic after instruction. Summative assessments are given at the end of a school year or at the end of a unit of study.
- Norm-referenced assessments measure students against a national "norm" or an average, in order to rank the students against each other. Examples of norm-referenced assessments include the SAT and the ACT.
- Criterion-referenced assessments measure a student's performance against a standard or specific goal. Examples of criterion-referenced assessments include unit and chapter tests, as well as the assessments commonly referred to as the Partnership for Assessment of Readiness for College and Careers (PARCC) and Smarter Balanced.

[See, generally, <http://www.edudemic.com/summative-and-formative-assessments/>]

Types of Assessment Questions

- **Multiple choice** questions provide the student with a stem and a set of possible answers from which the student must select the correct one. The possible answers generally include one correct answer and three to four incorrect answers, which are designed to mimic the common misconceptions that students have about the concept being tested.
- **Constructed response** questions require a student to provide a written response. This might be a paragraph or a short essay, or it might involve building and solving an equation.
- **Extended constructed response** questions are generally multi-part questions. A student is expected to answer the first part of the question before answering subsequent parts. Often, the subsequent responses require a student to reflect upon or further explain an earlier answer.
- **Technology-enhanced questions** are available in computer-delivered assessments and require a student to interact with technology using actions such as dragging and dropping information, highlighting relevant text, and completing sentences or equations from items in a drop-down menu.
- **Performance task questions** require a student to use multiple stimuli to solve a problem or create something new. Such performance tasks are usually scored with a rubric, which includes the criteria that a student must keep in mind while developing a solution. In English language arts, performance task questions could require a student to read several essays and provide a written synthesis. In mathematics, performance task questions could require a student to analyze charts and graphs and thereafter write a plan for using the data in a real world application.
- **Informal questions** could require a student to respond in any number of different ways, including checklists and observations. Informal questions allow a teacher to gather insights about a student's progress.

Types of Delivery Methods

Assessments can be delivered using a paper and pencil method or an online method. This latter format requires that each student have access to an appropriate device and have the technological skill to utilize the device.

An online assessment can also be an adaptive assessment. As a student answers questions correctly, the assessment selects increasingly difficult questions. Likewise, if a student answers questions incorrectly, the assessment will select less difficult questions. Adaptive assessments provide information regarding the actual level of a student's knowledge and not just whether a student is functioning at, above, or below a particular level.

Reliability and Validity

The goal of any assessment is that it be deemed to be both reliable and valid. An assessment that is reliable is consistent within itself and across time. If a student takes a test today, next week, or next month, the results

should not be inconsistent. An assessment that is valid means that the assessment actually measures that which it claims to measure.

The concepts of reliability and validity can be likened to a bathroom scale. If the scale is reliable, it will provide an individual with the same weight readout, every time the individual steps on the scale, provided the individual's weight has not actually changed. If the scale is not functioning correctly, it may still provide the same weight readout every time the individual steps on the scale, but it may not be providing the correct weight. In this case, the scale may be reliable, but not valid. In order for the scale to be considered both reliable and valid, it must provide the same weight every time the individual steps on the scale and it must correctly measure the individual's actual weight.

An assessment can be reliable without being valid, but it cannot be valid without being reliable.

STANDARDS AND ASSESSMENTS - THE NEXT GENERATION

Under the federal Improving America's Schools Act, which was a Clinton administration initiative, there was a move toward organized school improvement. This effort centered around standards for learning and periodic measures of progress using state assessments. When the federal No Child Left Behind Act took effect, during the Bush administration, it required a concerted effort to pursue higher and more equitable outcomes for students, regardless of their socio-economic status, their race, their ethnicity, or any existing disability. It also required a concerted effort to provide highly qualified teachers for all students.

Since 2002, these efforts have been pursued largely through test-based accountability strategies that articulated annual targets for growth and included consequences for not meeting those targets. State tests showed noticeable student gains over time. However, progress has not been evident on the National Assessment of Educational Progress. As for the Program for International Student Assessment (PISA), which is a more open-ended test evaluating how students can apply their knowledge and can demonstrate their reasoning, United States scores in math, reading, and science actually declined between 2000 and 2012.

Because of this situation, some states are beginning to reexamine their existing educational strategies and implement changes to ensure that every student will be able to learn the higher-order skills that are necessary to succeed in the 21st century's global environment. These skills include critical and creative thinking, problem solving, collaboration, multiple modes of communication, uses of new technologies, the capacity to learn, and the social-emotional intelligence that fosters a growth mindset and supports resilience and resourcefulness.

As part of their reexamination, states are realizing that the education of students in the 21st century must be conditioned on a clear vision of what proficiency means in the realm of student performance. They are beginning to realize that that vision must be anchored in realistic and defensible standards. They are beginning to realize that that vision must be transparent and articulated to parents and they are beginning to realize that that vision must be pursued through rich curricula, sophisticated teaching, and new, more robust assessment systems that allow for informed decisionmaking regarding the nature and scope of meaningful learning; the skill, professionalism, and commitment of school personnel; the provision of adequate resources; and the appropriate use of such resources.

The literature seems to indicate that 21st century state education reform efforts will utilize the following broad categories:

- The articulation of expectations and the measurement of progress;
- The diagnosis of and response to challenges;
- Support for struggling students and struggling schools;
- Accountability for the use of resources; and
- Professional accountability.

The literature also seems to indicate that 21st century state education reform efforts will have to be systemic--i.e. coherent across all categories. Isolating or targeting single categories will not produce the desired improvements in student achievement.

[See, generally, *Next-Generation Accountability Systems*, <https://www.americanprogress.org/issues/education/report/2014/10/16/99107/next-generation-accountability-systems/>,

Roadmap for Next-Generation State Accountability Principles,
http://www.ccsso.org/Resources/Publications/Roadmap_for_Next-Generation_State_Accountability_Principles.html,

Designing the Next Generation of State Education Accountability Systems: Results of a Working Meeting,
<http://www.crpe.org/publications/designing-next-generation-state-education-accountability-systems-results-working>]