Blueprint for Item Writing
A GUIDE FOR WRITING QUALITY ASSESSMENT ITEMS

PowerSchool
Contents

Importance of Writing Quality Items 3
Writing Quality Items 4
Unpacking or Deconstructing the Standards 5
Nuts and Bolts of Writing Good Assessment Items 6
Selection-Based and Performance-Based Items 9

SELECTION-BASED ASSESSMENT ITEMS
• Traditional Multiple-Choice Item 10
• Technology-Enhanced Item: Advanced Multiple-Choice 11
• Technology-Enhanced Item: Hot Spot 12
• Technology-Enhanced Item: Drag and Drop 13

PERFORMANCE-BASED ASSESSMENT ITEMS
• Technology-Enhanced Item: Fill-in-the-Blank 14
• Technology-Enhanced Item: Constructed Response 15

Increasing Item Rigor vs. Increasing Difficulty 16
Assigning Levels of Cognitive Complexity 18
How to Get Started Writing Quality Assessment Items 19
References 21
Importance of Writing Quality Items

Assessment is an aspect of the rigorous formative assessment cycle that requires precision to be effective. The items, which constitute an assessment, are the foundation upon which teachers build inferences about student understanding. Properly written items produce accurate data about student comprehension that guide teachers to make sound instructional decisions to sustain and improve student learning. In addition to providing evidence about the concepts students have difficulty understanding, well-written assessments effectively help teachers evaluate the next steps they should take in the instructional process.1

“Useful assessment generates data about what students know and are able to do, rather than merely identifying student weaknesses.”

(Turner, 2014)
Two essential elements of high-quality items are validity and reliability. Items are valid when they assess what they are intended to assess. Teachers writing items must have a deep and shared understanding of the standard and its learning targets. Valid items are those questions that accurately gather information about student understanding of specific content.

Reliable items are those that consistently measure what they are intended to measure. Research has proven that there are general item-design rules that greatly improve the reliability of items. “Universal design opens the door to rethinking assessments—to ensure that the assessments themselves are not the barriers to improved learning. Universally designed assessments are a promising approach to providing appropriate assessment conditions for all students, giving each student a comparable opportunity to demonstrate achievement of the standards being tested.” These design rules help item writers improve reliability by reducing elements that negatively impact the functionality of an item. For example, rules may reduce or eliminate bias, clues to answers in other items, or grammar cues to certain distracters in an item.

Assessment items are only as good as the data they provide to teachers and students about what students know and do not know. Great items shine light onto what a student thought when they chose either the answer or a distracter.

### Writing Quality Items

**HISTORY STANDARD**

**Grade Four:** Ohio in the United States Geography  
**Topic:** Human Systems 4.GE.C.12

**CONTENT STATEMENT**

12. People have modified the environment since prehistoric times. There are both positive and negative consequences for modifying the environment in Ohio in the United States.

**ITEM**

**4.GE.C.12**

**EXPLAIN** why cutting forests for lumber may have positive consequences for people and the economy while at the same time may have negative consequences for the environment.

**KEY:** Verbs Knowledge Cognitive Complexity

**NEED TO KNOW**

- Modifications to environment  
- Positive consequences of modifications  
- Negative consequences of modifications

**HOW TO SHOW**

- Compare/Contrast  
- Explain

**COGNITIVE COMPLEXITY**

- Bloom’s (2) Understanding  
- Webb’s (2) Skill/Concept

**ITEM TYPE**

- Constructed Response

**CHECKING FOR QUALITY**

**VALID:** Measures what it is intended to measure.  
**RELIABLE:** Produces consistent results over time.  
**RIGOROUS:** Engages and challenges students.
Standards are often written as complex, overarching statements that can be interpreted many different ways. It is important for teachers to collaborate with each other during the unpacking process and discuss how to challenge students to make sure they have met the expectations of the standards.

Deconstructing the standards collaboratively builds the capacity of all teachers involved. Not only does the process increase the ability of teachers to teach a standard effectively, but it also increases their ability to accurately assess a standard. Because each teacher brings his or her understanding of the strand or standard to the discussion, these rich conversations serve to deepen the comprehension of the standard for all teachers. Furthermore, the process by which teachers create a shared understanding of desired learning outcomes for standards and design assessment items to measure them is a near-perfect example of meaningful, job-embedded, professional learning.

By developing learning targets that are accurately derived from standards, teachers will have a better understanding of what to teach so they can plan instruction that appropriately addresses the knowledge and skills of the standards. In addition to identifying and understanding learning targets, deconstructing standards also helps teachers to identify and understand the level of cognitive complexity the standards demand. Whether teachers use Bloom’s Taxonomy or Webb’s Depth of Knowledge to assign levels of cognitive complexity to assessment items, teachers need to have a shared and thorough understanding of how that level informs how content is taught and assessed. Much of the research on rigor provides teachers with strategies and practices to ensure that standards are taught at their intended level of cognitive complexity.

As teachers unpack the component knowledge and skill required by a standard statement, they better understand the learning expectations and can more clearly articulate those expectations to students and parents.”

(Konrad et al., 2014)
Nuts and Bolts of Writing Good Assessment Items

**WHY WRITE ITEMS?**

Writing assessment items is a fantastic way for teachers to study and explore their grade-level or content-area standards. The creative process produces immediate results for teachers, informing student learning and teacher instruction grounded in the tested standards. Creating the venue for teacher dialogue, teachers can learn from each other as they discuss the intent and nuances of the standards. Teachers develop a deeper understanding of the standards from these conversations. Writing items also allows teachers to tailor items to identify common learning gaps. Finally, the item-writing process is complete when teachers meet to discuss the results and examine how the items functioned.

**1 Reduce Redundancy**

**GOOD**

After the secession of Virginia, the capital of the Confederacy was –

A Richmond  C Montgomery  
B Manassas  D Atlanta

**BAD**

After the secession of Virginia, –

A the capital of the Confederacy was Richmond
B the capital of the Confederacy was Manassas
C the capital of the Confederacy was Montgomery
D the capital of the Confederacy was Atlanta

**2 Use Clear, Precise, Simple Language**

**GOOD**

A cereal box has the volume of 1,200 square inches and a height of 20 inches. Which of the following could be the dimensions of the length and width of the cereal box?

**BAD**

Garrett has cereal every morning for breakfast. He notices that the cereal box is in the shape of a rectangular prism. The cereal box that he is eating from has the volume of 1,200 square inches and a height of 20 inches. Knowing the height and volume, which of the following could be the dimensions of the length and width of the cereal box?

**3 Use a Single Idea or Problem**

**GOOD**

Why was Jamestown a poor site for a settlement, and when was it moved to Williamsburg?

**BAD**

Why was Jamestown a poor site for a settlement, and when was it moved to Williamsburg?

**4 Avoid “All of the Above” and “None of the Above”**

**BAD**

The colony of Virginia mainly provided England with —

A locations for English prisons
B new sources of raw materials
C all of the above
D none of the above

**GOOD**

Which number is NOT an example of an integer?

**BAD**

Which number isn’t an example of an integer?

**5 Do Not Use Contractions**

**GOOD**

Which number is NOT an example of an integer?

**BAD**

Which number isn’t an example of an integer?
Before the Civil War, the primary form of a family’s transportation was a —

A horse and buggy

B rocket

C skateboard

D canoe

Which of the following is a reason the southern states seceded from the Union?

A Northern and southern states disagreed about everything

B The industrial economy of the North did not support slavery

C People in the South wanted to continue farming on plantations

D The southern states did not want any of the western territories to become states

John found the solution of $13 + x = 25$ in one step by —

A dividing both sides of the number sentence by 13

B adding 13 to both sides of the number sentence

C multiplying both sides of the number sentence by 13

D subtracting 13 from both sides of the number sentence
There are general guidelines for constructing high-quality items that improve the overall ability of the item to measure what it is intended to measure and consistently gather accurate results. The desired data produced by an item is a crucial factor influencing the selection of item type and format. The recommendations below are accepted guidelines to assist item writers in their quest to create high-quality items. In addition to these guidelines, standardized state-assessment providers typically have assessment-design rules primarily related to item formatting that are unique to their tests.

High-Quality Items...

- **Provide clear directions.** The student should know what to do to successfully answer the item. One of the first steps teachers should undertake when reviewing items is to ensure that each item has clear directions that explicitly state what students are expected to do. Clear directions increase item fairness and validity.1

- **Assess a single idea or problem.** If an item is written asking more than one question, it is difficult or impossible for the teacher to determine from the results to which question the student was responding.

- **Include readable graphics.** In order to produce intended results, all graphical images must be clear, uncluttered with unnecessary information, and readable. When reviewing the technology-enhanced components of the items, it is important for teachers to ensure that the media and graphics are essential for answering the item.2

- **Use clear and precise language.** Words, that are not pertinent to the item should be eliminated.

- **Are not interdependent.** Items should not provide clues or answers in the item stem or distracters to other items on the assessment.

- **Avoid redundancy in the distracters.** Item writers should include words in the stem that would otherwise be repeated for each response option.

- **Use as little punctuation as possible.** Specifically, contractions are often misunderstood and should be eliminated.

- **Contain new language.** Avoid using phrases or words taken directly from standards, lectures, or studied text. This practice increases the level of cognitive complexity of the item and engages the student in higher-order thinking.

- **Have the blank at the end of a statement,** allowing students to focus on the question rather than figuring out how to fit the appropriate distracter into the statement.

- **Contain distracters that are grammatically consistent with the question stem.** Checking each distracter to ensure that it is grammatically correct when connected to the item stem avoids clueing students to the correct option.

- **Employ the third person.** When items use “you,” students tend to personalize their response and choose the distracter that represents their opinion or idea versus what the item is asking.

- **Ensure distracters are equally attractive answer choices.** Distracters should be plausible and represent common student misconceptions or misunderstandings.3

- **Contain distracters that are equivalent in length, style, and structure.** This is especially true when distracter choices continue on to the second line of text. Align distracters so that they are all one line of text or all two lines of text.

- **Avoid using “all of the above” or “none of the above” as distracters.** Students gravitate toward choosing these selections regardless of the correct distracter choice.

- **Avoid using absolute terminology.** Some students tend to focus on finding exceptions to these statements including these terms rather than on answering the question.

---
1 (Lakin, 2014)  
2 (Scalise & Gifford, 2006)  
3 (Downing & Haladyna, 2006; Haladyna et al., 2010)
“Effective assessment requires that a variety of assessment procedures be used. The vast array of possible learning outcomes in any particular area of instruction means that various types of assessment procedures must be considered when planning for assessment.”

(Gronlund, 2003)

Selection-Based and Performance-Based Items

High-quality assessment items are typically either items that require students to make a selection(s) or items that require students to perform a task. Items that require students to make a choice(s) from provided distracters are by far the most common form of paper-and-pencil and online assessment items. Advancements in technology have greatly improved the user interface and student engagement with online assessment items. By reducing students’ opportunities to guess the correct answer, technology-enhanced items can provide teachers with more valid measures of students’ understanding. ¹ Combining several item types on an assessment allows teachers to obtain more information about student thinking at varying levels of cognitive complexity. Perhaps equally as important, assessments with a variety of item types are more likely to keep the student engaged.

¹ (Cayton-Hodges et al., 2012; Parshall & Harmes, 2009)
For more than fifty years, standardized assessments have employed multiple-choice items to assess students. States, school districts, teachers, and parents have used data produced from multiple-choice items to make inferences about student learning. Multiple-choice items have maintained their popularity and dominance in education assessment for two main reasons: multiple-choice assessments are efficient and cost-effective. Assessments composed of predominantly multiple-choice items can assess a large amount of content relatively quickly. Because multiple-choice items only require students to select their answer from a list of four distracters, items can be completed rapidly, making them efficient to administer. Multiple-choice items are most often scored electronically, thus eliminating the need for expensive hand-scoring of items by trained teachers and making them cost-effective.

One common misconception about multiple-choice items is that they are most appropriate when assessing standards and skills requiring a low level of cognitive complexity (e.g., Bloom’s Remembering or Understanding or Webb’s Level 1). Susan Brookhart explains in her book How to Design Questions and Tasks to Assess Student Thinking that when written properly all item types are capable of assessing higher-order thinking. Brookhart (2014) says, “…giving students something to think about greatly assists with writing higher-order thinking questions.” Assessing students using items that contain a graphic, poem, primary-source document, or piece of art, among other things, and asking them to analyze, evaluate, or create something from what has been provided elevates the thinking level of any item type.

“ If teachers decide to use multiple-choice items, it is important that the items accurately measure the construct being assessed, are free from bias, the vocabulary is appropriate for the grade level, and contain plausible distracters that reflect common student misunderstandings.”

(Haladyna, Downing, & Rodriguez, 2010)
TECHNOLOGY-ENHANCED ITEM

Multiple-choice items that provide more than four distracters are designed to force students to be more discerning when choosing an answer. Students must select their answer from up to ten distracter choices. Advanced multiple-choice items allow for more content coverage than the traditional multiple-choice item type. These items are a good choice for content that demands more than four options. In addition, this item type can be used to increase the difficulty of traditional multiple-choice items.¹

“The science of multiple-choice item writing is advancing, but item writing is still largely a creative act that we inexorably link to content standards and instruction.”

(Haladyna et al., 2010)

GREAT FOR ASSESSING:
Content that has natural groups of more than four

HOW THE ITEM WORKS
The student is given a question, with or without a stimulus, and must choose the correct answer from two to ten answer options.

ADVANTAGES
Adds difficulty to standard multiple-choice items
Can be used for true/false questions
Increased information about student misconceptions or misunderstandings

1. The student must choose the correct answer from two to ten distracter choices. Advanced multiple-choice items are a good choice for content that demands more than four options.
TECHNOLOGY-ENHANCED ITEM

Hot spot items require students to select more than one correct answer choice. Answer choices can be displayed in a variety of row and column configurations. Most students are accustomed to answering traditional multiple-choice items that require one correct answer. As a result many students find hot spot items requiring more than one correct answer extremely challenging. Including more answer options increases the difficulty of the item. Items that require students to select more than one answer can be written to measure the complex, multifaceted content that cannot be adequately measured by items that allow a single correct response.¹

Item writers provide support to students by indicating the number of correct answer options. To increase the level of rigor of these items, the number of correct options is not indicated. Because hot spot items can consist of a picture or text where students have to select one or more correct answers, there are fewer opportunities for students to guess the correct answer, thus improving the validity of the item.²

“\[The\] most frequently cited justification for innovative items is their potential to measure skills that are not easily assessed through multiple-choice items. Such skills include higher-level cognitive skills and complex problem solving abilities.”

(Onay-Seymour, Way, & Dolan, 2009)

GREAT FOR ASSESSING:

Identification of more than four pieces of knowledge or concepts

HOW THE ITEM WORKS

Students are given a question, without or without a stimulus, and are asked to select an indicated number or ALL of the correct answer options.

ADVANTAGES

Increased student engagement

Increased rigor

Increased assessment data regarding student thinking

Allows for comparison
**SELECTION-BASED ASSESSMENT ITEM:**
Drag and Drop

**TECHNOLOGY-ENHANCED ITEM**

Drag and drop items are one of the most engaging of the technology-enhanced items types. Students select distracters and drag them to their appropriate spaces on a graphic. These items provide teachers with additional data about student thinking that traditional multiple-choice items typically do not. For example, students can engage in graphic modeling where they have to place the correct line or curve to the correct location on a graph, move pictures or words to complete a chart or show their relationships to one another in concept maps, sort or sequence objects to demonstrate understanding of concepts, and insert text into a designated part of a sentence or paragraph.¹

“Drag and drop items can be innovatively designed to assess students' higher-level understanding of concepts. These items allow students to demonstrate their knowledge through engaging, meaningful, and complex tasks.”

(Strain-Seymour et al., 2009)

---

**GREAT FOR ASSESSING:**

- Ability to put things in sequential or chronological order
- Labeling an image, graphic, etc.
- Matching cause and effect
- Matching words with definitions

**HOW THE ITEM WORKS**

Students are presented with an image and a list of answer options. They must drag the correct answer option to its proper space on the image.

**ADVANTAGES**

- Increased student engagement
- Increased rigor
- Increased assessment data regarding student thinking

---

¹ (Zenisky & Sireci, 2002)
PERFORMANCE-BASED ASSESSMENT ITEM:
Fill-in-the-Blank

TECHNOLOGY-ENHANCED ITEM

Fill-in-the-blank items are best used for measuring learning outcomes where students have to produce a brief answer or to solve a computational problem. When developing fill-in-the-blank items, teachers should write the item as a direct question or an incomplete sentence with the blank at the end of the statement. This allows the students to have the opportunity to read the entire statement before thinking about the possible answer. Fill-in-the-blank items are technically performance tasks because they require students to generate a response rather than choose from a list of possible responses. These items minimize guessing and require students to know the intended response rather than perhaps merely recognizing a correct answer option.

“ A fill-in-the-blank, open-ended item is a more challenging and thorough measurement of a test objective than is a comparable multiple-choice item. Because the number of possible incorrect answers to an open-ended item is infinite, the answers can also provide you with interesting information about the misconceptions of your students.”
(Kelly & Haber, 2006)

GREAT FOR ASSESSING:
- Measurement and computation skills in science and math
- Grammar and writing skills
- Citing text to answer a question

HOW THE ITEM WORKS
Students are asked to complete a sentence or phrase or perform a calculation.

ADVANTAGES
- Requires students to generate text
- Minimizes guessing

Directions: Type your answer in the box. Use “/” for the fraction bar if needed.

Represent the ratio of soccer balls to the total number of balls shown in the picture. Your answer must be in simplest form.
TECHNOLOGY-ENHANCED ITEM

Constructed response items are also known as open-ended, written, or extended-response items. This item type is best used to measure complex understanding. For example, students are asked to give reasons to support a claim, explain the relationship between ideas, describe information, or formulate a conclusion based upon the presented information. Constructed response questions should be designed to measure one or two learning outcomes in order to provide students with a well-defined and focused question or task to complete. Although constructed response items measure fewer learning outcomes and are more time-consuming for students to answer, they are a valuable item type.

“IF WE ONLY USE MULTIPLE-CHOICE ITEMS, WE MAY RISK THE LOSS OF THE ACTIVE CONSTRUCTION OF KNOWLEDGE, WHICH IS IMPORTANT IN THE LEARNING PROCESS.”
(Lissitz, Hou, & Slater, 2012)

GREAT FOR ASSESSING:
The highest levels of cognitive complexity
Students’ ability to write about how they would create, evaluate, or analyze a given stimulus.

HOW THE ITEM WORKS
This item type requires the student to type in a response to a prompt. The prompt most often refers the student to a piece of text, illustration, graphic, proof, etc.

ADVANTAGES
Rigorous
Eliminates guessing
Aligns well with highest levels of cognitive complexity
Can assess concept mastery and writing
Provides teacher with insight into student thinking

Look at the data presented in the graph.
What is the average rate of change between years 2005 and 2009? Explain your answer.

Homeownership Rates in Montana

RATE (%)
73
71
69
67
65
63
61

YEAR
2005 2006 2007 2008 2009 2010

Directions: Type your response in the space provided.

PowerSchool.com | 15
**NEXT GENERATION SCIENCE STANDARD**  
**MS-LS2 Ecosystems: Interactions, Energy, and Dynamics (Life Science)**

**MS-LS2-2**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Producers</td>
</tr>
<tr>
<td>2</td>
<td>Primary Consumers</td>
</tr>
<tr>
<td>3</td>
<td>Secondary Consumers</td>
</tr>
<tr>
<td>4</td>
<td>Tertiary Consumers</td>
</tr>
</tbody>
</table>

In a food web, at what level is the greatest concentration of energy?  

Bloom's Level 1

**MS-LS2-3**

**Directions:**  
Click on each answer you want to select. You must select all correct answers.

Which of these consumers receive their energy directly from a producer?

- rabbit
- lizard
- snail
- bluebird
- caterpillar
- eagle

Bloom's Level 1

**FACTORS THAT INCREASE ITEM DIFFICULTY**
- Level of Accuracy
- Number of Questions
- Amount of Knowledge
  - Concepts
  - Facts
  - Formulas
  - Procedures

**FACTORS THAT INCREASE ITEM RIGOR**
- Text Complexity
- Vocabulary
- Reading Level
- Visual Complexity of Graphics
- Higher-Order Thinking Skills
- Multiple Steps
- Student Writing

**MS-LS2-3**

**Directions:**  
Type your answer in the space provided.

Describe the energy flow through a marine ecosystem food web.

Bloom's Level 3
“If we have standards calling for deeper learning, it stands to reason that we’ll need assessments that do so, too. But if we believe we can address the issue of rigor by simply giving rigorous assessments, we’ve missed the point, which is to help students master that deeper learning. Rigor resides in the standards.”

(Chappuis, 2014)

Increasing Item Rigor

Assessment rigor is grounded in the standards being assessed. The process of deconstructing the standard to determine the level of cognitive complexity expected for instruction and student demonstration of mastery is the foundation for the creation of all assessment items. Some standards are written to be taught and assessed at the knowledge level while others are written to be taught and assessed at higher levels, such as analyzing or evaluating. However, rigor is multifaceted, and several factors can increase the rigor of items. Three of these factors—text complexity, complex graphics, and multiple steps—are discussed below.

Rigor increases with the complexity of the text. Text complexity is determined by several factors including, but not limited to, the length of a passage, student familiarity with the topic of the passage, and the difficulty of the vocabulary within a passage. Rigorous vocabulary requires the students to recognize random words and understand words with complex meanings. Ensuring that the reading level of the assessment item, including passages or other text, is appropriate for the grade level is essential. Douglas Fisher, Nancy Frey, and Diane Lapp, in their book Text Complexity: Raising Rigor in Reading, created a rubric that utilizes qualitative measures to determine text complexity. The rubric uses the following three levels to determine the rigor of a text selection: Stretch, Grade Level, and Comfortable. Their work suggests that teachers include more challenging texts to increase the level of rigor of reading assignments and assessments.

Another factor used to increase item rigor is requiring students to analyze or interpret complicated or visually confusing graphics. The use of multiple graphics or charts within an item adds rigor and increases student engagement with the assessment item.

More rigorous items require students to accurately complete multiple steps in order to arrive at the correct answer. An item that requires students to repeat the same process or calculations in order to select all correct responses is yet another method for increasing item rigor.

Increasing Item Difficulty

There is a clear difference between the difficulty of an item and the rigor of an item. Assessment items can be made more difficult by increasing the intensity of a question but maintaining the level of cognitive complexity. For example, an item asking students to name the president of the United States can be made more difficult by asking the student to name all the U.S. presidents. Both items are asking the student to recall names. Both items are at the knowledge level of Bloom’s Taxonomy. In order to increase the rigor of an item, the level of cognitive complexity must increase. For example, an item at the application level of Bloom’s Taxonomy may provide a description of a laboratory experiment and ask the student to determine the percent error in the experiment. To increase the rigor of this question to the create level of Bloom’s Taxonomy, the item may ask the student to design a new experiment that will decrease the percent error indicated in the original experiment.
Assigning Levels of Cognitive Complexity

High-quality items typically have a level of cognitive complexity assigned to them. The process of deconstructing standards to accurately identify the level of complexity at which the content should be taught and tested is the basis for writing valid and reliable items. Knowing the level of cognitive complexity of items provides teachers with another lens through which they can view and analyze assessment results.

Whether teachers are using Bloom’s Taxonomy (original or revised) or Webb’s Depth of Knowledge, the process for assigning levels of cognitive complexity to items remains the same. Teachers assign a level based on learning target(s) outlined in the standard. Typically, teachers examine the standard to look for verbs that align with verbs associated with each level in the taxonomies. Although the process seems relatively straightforward, this is not always the case. Standards and their requisite learning targets are subject to multiple interpretations. Therefore, it is recommended that teachers work collaboratively to develop a shared understanding and agreement regarding expected learning outcomes for standards and the level of cognitive complexity assigned to items.

Several taxonomies such as Webb’s Depth of Knowledge and Bloom’s taxonomy can be used to help guide teachers to determine the rigor of standards, identify appropriate instructional methods, and design assessments. Teachers can use Webb’s Depth of Knowledge to determine the level of cognitive processing required to answer an item. Level 1 items typically require students to recall facts or details. Level 2 items focus on skills and concepts, so students need to show relationships or make inferences. Level 3 items emphasize strategic thinking and reasoning, which requires students to explain ideas using evidence or by applying concepts. Level 4 items require students to engage in extended thinking in order to analyze and make connections between several concepts. “DOK consistency between standards and assessment indicates alignment if what is elicited from students on the assessment is as demanding cognitively as what students are expected to know and do as stated in the standard.”

Bloom’s revised learning taxonomy includes action verbs that state what students have to do in order to learn, which helps teachers better formulate learning goals according to the standards and to identify the level at which students need to answer a question. The six levels of the taxonomy include the cognitive skills of reproduce, comprehend, apply, analyze, evaluate, and create. When developing items it is important to reflect upon the learning outcomes of the standards and analyze the cognitive processes that students are required to undertake when completing those items. Complete alignment between objectives, instructional activities, and assessment happen when they all fall within the same area of the Taxonomy Table.

CCSS.ELA – LITERACY. RL 9-10.2
ENGLISH LANGUAGE ARTS STANDARDS
Reading: Literature  Grades 9–10

KEY IDEAS AND DETAILS
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.

KEY: (Verbs) _____ Knowledge _____ Cognitive Complexity

www.corestandards.org/ELA-Literacy/RL/9-10/#CCSS.ELA-Literacy.RL.9-10
How to Get Started Writing Quality Assessment Items

All teachers have written test questions. It is part of their DNA. However, many have not had specific and structured training, grounded in research, on how to consistently write valid and reliable items that are aligned with the standards they are designed to assess. The majority of teachers will benefit greatly from professional learning opportunities where they can learn how to design high-quality, rigorous items and spend time collaboratively creating items. Providing regular professional learning sessions for teachers dedicated to discussions about levels of cognitive complexity in standards and items, and ways to add rigor to items, will build teacher capacity. Building teacher knowledge and skills in the analysis of assessment data has the potential to inform instruction in powerful ways.

Investing in creating the time for teachers to deconstruct standards so that they develop a deep and shared understanding of the standards and their learning targets is a key first step in creating high-quality assessment items. The second necessary step is to train teachers on how they can use a variety of techniques to increase the rigor of items. Teaching teachers to create high-quality items increases their overall assessment knowledge and skills.
PowerSchool is the #1 leading education technology platform for K-12, serving more than 40 million users, 17.5 million students, 31.5 million parents, and 70 countries around the world. We provide best-in-class, secure, and compliant online solutions, including student information systems, registration and school choice, assessment and analytics, and special education management. We empower teachers and drive student growth through innovative digital classroom capabilities, and we engage families through real-time communications across any device.

Visit www.powerschool.com to learn more.
References


