

Procedures for Reducing the Depth, Breadth, and Complexity of Items

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Test Design

Analyzing and removing potential barriers for students with significant cognitive disabilities addressed accessibility limitations related to the test design. Simplified language was used in all text. Alignment was ensured between teacher-scripted language and student materials. General test layout was considered from the view of readability and legibility. Student materials were organized for ease of administration onto standard 8 ½" X 11" paper, with the number of items limited such that all items are visually accessible. The administrator can easily mask all items on the page other than the item being tested to maintain the student's attention to the item at hand. Pictures were constructed using primarily black and white lines of at least 1 point thickness for minimal complexity. Individual items were designed such that they were not worded in a negative manner (e.g., "Which of these answers is NOT..."). Paper student materials text was constructed in an appropriately sized typeface, using Arial MT Pro 15 point. All items were reviewed with administration and development steps toward reducing complexity.

Item Depth, Breadth, and Complexity

Reductions in depth, which is generally defined by Anderson's revision of Bloom's Taxonomy, were accomplished by limiting the process verbs to simpler tasks (recognize, identify, match, understand *versus* analyze, develop, evaluate, create). The team developed items that linked to the relevant Oregon Standards in reading, writing, mathematics, and science at the grades tested. From that point, the teams tried to target performance events that were reduced in terms of depth, but maintained access to appropriate content.

Reductions in breadth, which can be defined in terms of how broad a student's domain of knowledge must be to answer a specific item, were accomplished by limiting the item content to accessible domains. For example, while a general education assessment might target the process of implementing a laboratory experiment in science, the extended assessment might ask the student to define a term that is critical to the experiment. The content is relevant, but the performance demand does not require a wide knowledge set to answer appropriately.

Reductions in complexity, which is generally how difficult the test content is, were accomplished by limiting the difficulty of the content (e.g., adding single-digit integers is much easier than adding imaginary numbers, though the process verb, to add, is the same).

It is critical to mention that depth, breadth, and complexity are intertwined and work together to determine overall item difficulty. They are simply three lenses we look through to systematically address and make items more accessible from a test content perspective.