

## APPENDIX 5: UNIVERSALLY DESIGNED ASSESSMENTS

Universally designed assessments allow participation of the widest possible range of students and result in valid inferences about performance of all students who participate and are based on the premise that each child 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 (Thompson, Johnstone, & Thurlow, 2002). Data Recognition Corporation's (DRC) test developers are committed to the development of items and tests that are fair and valid for all students. At every stage of the item and test development process, we employ procedures that ensure that our items and tests are designed and developed using the elements of universally designed assessments that were developed by the National Center on Educational Outcomes (NCEO).

Federal legislation addresses the need for universally designed assessments. The *No Child Left Behind Act* (Elementary and Secondary Education Act) requires that each state must "provide for the participation in [statewide] assessments of all students" [Section 1111(b)(3)(C)(ix)(I)]. Both Title 1 and IDEA regulations call for universally designed assessments that are accessible and valid for all students including students with disabilities and students with limited English proficiency. DRC recognizes that the benefits of universally designed assessments not only apply to these groups of students, but to all individuals with wide ranging characteristics.

DRC's test development team has been fully trained in the elements of universal design as it relates to developing large scale statewide assessments. In addition to this internal training we encourage our clients to include committee members who are familiar with the unique needs of students with disabilities and students with limited English proficiency in the content specifications and item review process. We will provide training for these committee members using the guidelines presented here.

### ELEMENTS OF UNIVERSALLY DESIGNED ASSESSMENTS

After a review of research relevant to the assessment development process and the principles of universal design (Center for Universal Design, 1997), NCEO has produced seven elements of universal design as they apply to assessments (Thompson, Johnstone, & Thurlow, 2002).

- **Inclusive Assessment Population**

When tests are first conceptualized, they need to be thought of in the context of who will be tested. If the test is designed for state, district, or school accountability purposes, the target population must include every student except those who will participate in accountability through an alternate assessment. DRC is fully aware of increased demands that statewide assessment systems must include and be accountable for ALL students.

- **Precisely Defined Constructs**

An important function of well-designed assessments is that they actually measure what they are intended to measure. DRC carefully examines what is to be tested and designs items that offer the greatest opportunity for success within those constructs. Just as universally designed architecture removes physical, sensory, and cognitive barriers to all types of people in public and private structures, universally designed assessments must remove all non-construct-oriented cognitive, sensory, emotional, and physical barriers.

- **Accessible, Non-biased Items**

DRC conducts both internal and external review of items and test specifications to ensure that they do not create barriers because of lack of sensitivity to disability, cultural, or other subgroups. At DRC items and test specifications are developed by a team of individuals who understand the varied characteristics of items that might create difficulties for any group of students. Accessibility is incorporated as a primary dimension of test specifications, so that accessibility is woven into the fabric of the test rather than being added after the fact.

- **Amenable to Accommodations**

Even though items on universally designed assessments will be accessible for most students, there will still be some students who continue to need accommodations. Thus, another essential element of any universally designed assessment is that it is compatible with accommodations and a variety of widely-used adaptive equipment and assistive technology. DRC will work closely with the Department to ensure that individual state guidelines on the use of accommodations are compatible with the assessment being developed.

- **Simple, Clear, and Intuitive Instructions and Procedures**

Assessment instructions should be easy to understand, regardless of a student's experience, knowledge, language skills, or current concentration level. Directions and questions need to be in simple, clear, and understandable language. Knowledge questions that are posed within complex language certainly invalidate the test if students cannot understand how they are expected to respond to a question.

- **Maximum Readability and Comprehensibility**

A variety of guidelines exist to ensure that text is maximally readable and comprehensible. These features go beyond what is measured by readability formulas. Readability and comprehensibility are affected by many characteristics, including student background, sentence difficulty, organization of text, and others. All of these features are considered as DRC develops the text of assessments.

Plain language is a concept now being highlighted in research on assessments. Plain language has been defined as language that is straightforward and concise. The following strategies for editing text to produce plain language are used during DRC's editing process.

- Reduce excessive length
- Use common words
- Avoid ambiguous words
- Avoid irregularly spelled words
- Avoid proper names
- Avoid inconsistent naming and graphic conventions
- Avoid unclear signals about how to direct attention
- Mark all questions

- **Maximum Legibility**

Legibility is the physical appearance of text, the way that the shapes of letters and numbers enable people to read text easily. Bias results when tests contain physical features that interfere with a student's focus on or understanding of the constructs that test items are intended to assess. DRC will work closely with the Department to develop a style guide that includes dimensions of style that are consistent with universal design.

## **GUIDELINES FOR UNIVERSALLY DESIGNED ITEMS**

As test items are written and reviewed, DRC adheres closely to the following guidelines for universal design. The checklist that follows is used by DRC item writers and reviewers during the item development process.

- 1. Items measure what they are intended to measure.** DRC item writing training includes assuring that writers and reviewers have a clear understanding of each state's academic content standards. During all phases of test development items are presented with content standard information to ensure that each item reflects the intended content standard. Careful consideration of the content standards is important in determining which skills involved in responding to an item are extraneous and which are relevant to what is being tested. In certain types of items an additional skill may be necessary, such as a mathematics test requiring the student to read.
- 2. Items respect the diversity of the assessment population.** DRC is committed to the development of items that avoid any content that might unfairly advantage or disadvantage any student subgroup. Our item writers, test developers, and reviewers are trained to write and review items for issues of bias, fairness, and sensitivity. Our training also includes an awareness of and sensitivity to issues of cultural and regional diversity.
- 3. Items have a clear format for text.** It is vitally important that decisions about how items are presented to students allow for maximum readability for all students. Common fonts such as Times New Roman or Arial are preferable. Text presented in italics is far less legible and is read considerably more slowly than standard typeface. Point sizes most commonly used in test booklets are 10 and 12 point, with larger type being more appropriate for younger students and those with visual difficulties. Captions, footnotes, keys, and legends should be at least a 12 point size. To increase legibility, sufficient spacing between letters, words, and lines; blank space around paragraphs and between columns; and staggered right margins should be used.
- 4. Stimuli and items have clear pictures and graphics.** If pictures and graphics are used with reading passages and items they should provide essential information and should be clear and uncluttered. Illustrations should be placed directly next to the information to which they refer and labels should be used where possible. Sufficient contrast between background and text with minimal use of shading will increase readability for students with visual difficulties. Color shouldn't be used to convey important information.

- 5. Items have concise and readable text.** Linguistic demands of stimuli and items can interfere with a student’s ability to demonstrate knowledge of the construct being assessed. During item writing and review the following guidelines are used.
- Simple, clear, commonly used words are used whenever possible.
  - Unnecessary words and extraneous text are omitted.
  - Vocabulary and sentence complexity is 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.
  - Idioms should be avoided unless idiomatic speech is being assessed.
  - The questions to be answered are clearly identifiable.
- 6. Items allow changes to format without changing meaning or difficulty.** To the extent possible, items should allow for Braille or other tactile formats, signing to a student, the use of oral presentation, the use of assistive technology, and translation into another language.
- 7. The test has an overall appearance that is clean and organized.** Images, pictures, and text that may not be necessary (e.g., sidebars, overlays, callout boxes, visual crowding, shading) may be distracting to students and should be avoided. If an item requires the use of a map, only the portion of the map that is pertinent should be included and extraneous topographical features should be omitted. Anything that is simply decorative in nature does not serve a purpose and should be avoided. Information should be organized in a manner that is consistent with an academic English framework with a left-right, top-bottom flow.