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ABSTRACT

Modifying standardized tests for students with disabilities is a complex issue. Tests should be modified only when alternative measures do not exist. Testing professionals should always be cognizant of the fact that whenever modifications are made, normative interpretations must be made very cautiously. In addition, the accommodations that were made should be described and the examiner should continually ask whether the accommodations significantly alter the format of the test or change the nature of the test. In this document, many issues related to test modification are highlighted and a step-by-step procedure for developing appropriate testing accommodations is presented. (Contains 10 references.) (Author)

# Modifying Tests for Students With Disabilities

By  
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## Chapter Twelve

# Modifying Tests for Students With Disabilities

*Douglas K. Smith<sup>1</sup>*

### Abstract

*Modifying standardized tests for students with disabilities is a complex issue. Tests should be modified only when alternative measures do not exist. Testing professionals should always be cognizant of the fact that whenever modifications are made, normative interpretations should be made very cautiously. In addition, the accommodations that were made should be described and the examiner should continually ask whether the accommodations significantly alter the format of the test or change the nature of the test. In this paper, many issues related to test modification are highlighted and a step-by-step procedure for developing appropriate testing accommodations is presented.*

Providing testing accommodations for individuals with disabilities is not a new concept. Accommodations have been required within the educational setting since the passage of Public Law 94-142 (The Education for All Handicapped Children Act) and within the public setting since passage of the Rehabilitation Act of 1973. Many accommodations, such as Braille, large print, and extra time, have become common. In considering testing accommodations, we usually think of accommodations needed to assist individuals with physical or sensory disabilities. However, recent legislation (the Americans With Disabilities Act and the 1997 Individuals With Disabilities Act Amendments) has expanded our definitions of both disabilities and testing accommodations. For the first time, students with disabilities are to be included in state and district testing programs (unless specifically excluded from such testing in their individualized educational plan) and necessary accommodations are to be provided. Of course, not all students with disabilities require accommodations, and accommodations may not be needed for all assessments. The need for such accommodations must be determined on a case-by-case basis

by considering the student involved and the specific nature and purpose of assessment.

The number of reasons for assessing students with disabilities continues to expand. Assessment is mandated for placement in special education programs, and periodic re-evaluations are required for developing individualized educational plans. The emphasis on educational accountability has resulted in more and more district- and state-mandated assessments. Assessment is also utilized in planning transitional services for students with disabilities and in rehabilitation program planning.

Accommodations reflect changes in the standard or usual way in which a test is administered so that a student with a disability is not penalized by the disability. In other words, the accommodations are designed to "level the playing field" and to insure that we are measuring the student's abilities, not disabilities. Testing accommodations may involve changes in the setting, timing, scheduling, presentation, or response required on the test (Thurlow, Elliott, & Ysseldyke, 1998). Legislation requires that testing be conducted in settings that are physically accessible to the individual being tested. Examples of changes in the setting may include special lighting or testing in a separate room. The focus of this paper, however, is the process for making accommodations to individually administered, standardized tests. It is assumed that testing will occur in an appropriate environment accessible to the student.

Modifications to timing may include providing the student with additional time to complete the test, eliminating bonus points for rapid performance, allowing additional exposure time for test stimuli, providing frequent breaks, or allowing unlimited time. Scheduling modifications may include changing the order in which subtests are administered, testing over an extended period of time rather than in one sitting, or testing only at specific times of day. Changes in presentation mode may involve the use of sign language, large print, Braille, or repetition of directions. Response modifications may involve responding verbally instead of in writing, or using a word processor instead of writing, for example. In general, accommodations for physical or sensory disabilities are less problematic than accommodations for cognitive or affective disabilities because the latter may be less apparent to the examiner but of equal importance and impact on the individual (Olson & Goldstein, 1997).

The accommodations made for a disability may have a substantial impact on the subsequent scores obtained and may affect the validity of those scores. Some types of accommodations may be appropriate in some situations but not in others. How is one to decide whether an accommodation is appropriate? What factors should be considered in

developing appropriate accommodations? Does the purpose of the testing affect the appropriateness of specific accommodations? These are some of the questions that are examined in this paper. In this paper I provide a procedure or process for making testing accommodations. Although each situation in which a testing accommodation may be needed is unique and should be treated individually, there are some universal principles or guidelines that form the basis for the decisions that we make.

As testing professionals, we are guided by the ethical standards of our professional organizations as well as relevant state and federal laws. Perhaps none is more influential than the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999). In the latest edition of the standards, an entire chapter is devoted to the assessment of individuals with disabilities. The chapter addresses some of the more common types of accommodations, situations in which accommodations may and may not be appropriate, and possible effects of accommodations on test scores.

There is, however, a lack of research examining the process by which testing professionals can develop appropriate testing accommodations. Although several authors and test developers in their test manuals indicate the types of accommodations that may be appropriate or inappropriate with selected disabilities (e.g., Berg, Wacker, & Steege, 1995; Braden & Hannah, 1998; Bradley-Johnson, 1994; Reschly & Grimes, 1995), the practitioner is not presented with a process to use in making such determinations.

### **Prerequisites for Developing Accommodations**

Examiner prerequisites for testing students with disabilities are knowledge of the disability and experience in working with individuals with that disability. Special education textbooks (e. g. Hallahan & Kauffman, 1997; Haring, McCormick, & Haring, 1994; Heward, 1996) as well as *Best Practices in School Psychology III* (Thomas & Grimes, 1995) are sources for the knowledge prerequisite. Equally important, however, is direct experience with the disability. It is essential that the examiner be familiar with the disability and feel comfortable in working with individuals with the disability. This type of experience is usually obtained during professional training but also can be gained by spending time in classrooms with students with disabilities, working with special education teachers and their students, and working with testing professionals who specialize in assessing students with disabilities, particularly low-incidence disabilities.

Likewise, when an accommodation is developed for an examinee, it is essential that the examinee feel comfortable with the

accommodation and have direct experience with it. For example, allowing an individual to use a word processor instead of writing a response by hand would not be appropriate if the student has never used a word processor. In addition, the testing professional should be aware of any accommodations that may have been used in previous evaluations or are regularly used in the classroom. This information should be obtained prior to determining the need for testing accommodations. Finally, current information on the student's medical condition is important. These data may include functional visual assessments and hearing acuity results in the case of sensory impairments.

## **Developing Testing Accommodations**

Testing accommodations should be developed only when no alternative measures exist. The following ten-step process can be used to guide decision making about what test to choose, what accommodations may be needed, and whether those accommodations will alter the construct being tested or the interpretation of results.

### *Step 1*

The first step in developing testing accommodations is to determine the student's receptive skills. The examiner must determine whether the disability places limitations on the student's ability to understand visual or auditory material. Will the student be able to see the test materials, test questions, or any visual stimuli that are used? Will the student be able to hear the test directions or any verbal stimuli that are used? Any limitations in these receptive skills should be noted.

### *Step 2*

The second step is to determine the student's expressive skills. The examiner must determine whether the disability places limitations on the student's ability to respond verbally or motorically to test items. Because many test items require a verbal response, the examiner must determine whether any limitations exist in this area. Some test items require motor responses, which may range from pointing to a response, to manipulating puzzle pieces and blocks, to copying marks or symbols with a pencil, to writing from one word to a sentence or paragraph or more. Does the student have the necessary physical skills to complete these tasks?

### *Step 3*

The third step is to determine the construct, or specific skills, being measured. This is a crucial step because some test

accommodations may have the effect of altering the construct being measured. The examiner needs to clearly determine what is to be measured so that an appropriate test can be used. An appropriate test is one that reliably and validly measures the skills the examiner has indicated and *does not require* expressive or receptive skills that the student lacks due to the disability.

#### *Step 4*

The fourth step in developing testing accommodations is to determine the purpose or purposes of assessment. Is it to make norm-based comparisons? Is it to determine whether the individual has mastered a particular skill or set of skills? Is it for program planning purposes? Is it for developing academic interventions? Is there a combination of purposes? This distinction is of utmost importance because the degree to which a test can be modified to accommodate individuals with disabilities and continue to produce valid scores is dependent, in part, on the purpose of the test.

In norm-referenced tests, comparisons are made between the individual's performance and the performance of individuals in the normative sample. The purpose of testing is to determine relative standing. The information being sought is how the student's performance compares with that of others of similar age, grade, background, etc. The emphasis is placed on whether the person is functioning above, below, or on par with similar individuals. Modifications in test stimuli, test procedures, or response format may reduce the meaningfulness of the test norms, as norm-referenced tests are based on the assumption that the same stimuli were administered in the same way to all students. Thus, normative comparisons under conditions of accommodation need to be interpreted very cautiously. The results could be used to determine whether the student possesses certain skills, such as being able to define specific vocabulary words. However, any normative comparisons would be inappropriate unless the norm group consists of similarly accommodated individuals.

Criterion-referenced tests, in contrast, are designed to determine level of skill development and whether the student possesses specific skills, rather than to make normative comparisons. Thus, accommodations in testing, although still important, do not have the same impact on the interpretation of scores as with norm-referenced tests.

#### *Step 5*

The fifth step in the process is to determine the test or tests to be used. This decision "must be based on the characteristics of the student . . . such as age, sensory status, language competencies, and

acculturation” (Reschly & Grimes, 1995, p. 769). Best practice dictates that a standard or mandatory test best not be used. “Familiarity with a variety of instruments and knowledge of various disabling conditions are essential to choice of measures and interpretation of results” (Reschly & Grimes, 1995, p. 769).

### *Step 6*

The sixth step involves a determination of the receptive skills and expressive skills required by the test or tests that have been selected. This step involves an analysis of how the test stimuli are presented (visually, verbally, or a combination of the two) and the response format of the test. How are students expected to express their responses? Many tests require verbal responses; others may require the manipulation of blocks or puzzles or a written response or pointing to the correct response or copying a design or symbols.

### *Step 7*

In the seventh step, the examiner determines whether the student’s receptive and expressive skills are sufficient for understanding the test items and responding appropriately. This determination is completed by comparing the answers to steps 1, 2, and 6.

### *Step 8*

Once this analysis is completed, the examiner must use professional judgment to decide whether the set of skills needed for completing the test and the set of skills possessed by the student are sufficiently well matched to permit use of the test or tests. If they are, then testing can proceed. If not, the examiner must determine the type of accommodation that will be needed. The guiding principle in determining needed accommodations is that the accommodations should allow the student with disabilities to be assessed fairly and not be penalized as a result of the disability.

### *Step 9*

In the ninth step, the examiner determines whether the necessary accommodations will compromise the test results. This decision rests heavily on the purpose of the assessment. If the purpose of assessment involves norm-based comparisons, several issues must be considered:

- Were individuals with disabilities included in the standardization sample? If so, were any of them provided with testing accommodations? If the answer to both these questions is yes, then the examiner can have greater confidence in making normative comparisons because the



student would not have been specifically excluded from the standardization sample. If the answer to both these questions is no, or if accommodations were not made for individuals with disabilities in the standardization sample, then one must be more cautious in making normative comparisons.

- Have any specific accommodations been developed for the particular test? Consulting the test manual and contacting the publisher of the test are some ways to obtain this information.
- Does the testing modification alter the construct that is being measured? In other words, does the test measure the same construct with the accommodation as without? If the constructs being measured are not the same, then the accommodation is not appropriate. For example, a reading comprehension test that requires the individual to read a passage and verbally answer questions about it would be fundamentally altered by reading the passage to the student and having the student verbally answer questions about it. In this case the original construct, reading comprehension, is not being measured in the altered format; rather listening comprehension is being measured. Thus, the testing accommodation, although well intentioned, is not appropriate.

After answering these questions, the examiner must examine each proposed testing accommodation and determine whether the accommodation is appropriate to the purpose of the test and whether such an accommodation can be made. This step involves answering two questions. Does the accommodation alter the construct being measured by the test? Is the accommodation of sufficient magnitude that a comparison of scores between students with and without the accommodation is not appropriate? This decision should be made very carefully based on author and publisher recommendations, previous research, and finally, professional judgment.

If sufficient accommodations cannot be made, then the examiner must look for other ways to assess the skill or construct in question. In order to accomplish this, the examiner must be familiar with as many instruments as possible, as recommended by Reschly and Grimes (1995).

### *Step 10*

In the final step the examiner carefully documents the accommodations necessary and describes any cautions or limitations in interpreting test results.

Following this procedure will help ensure that only the appropriate and necessary accommodations are made and that the test results are not compromised in the process.

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Douglas K. Smith is currently director of programs in school psychology at the University of Albany—State University of New York. He obtained his Ph.D., Ed.S., and M.Ed. degrees in school psychology from Georgia State University. Current research interests include psychoeducational assessment issues in general and developing individual testing accommodations for students with disabilities in particular. Smith is author of *Essentials of Individual Achievement Assessment* (2001) and co-editor of the forthcoming *Assessing People With Disabilities in Educational, Employment, and Counseling Settings*, as well as numerous journal and chapter articles. Smith was named Outstanding Faculty Member of 1987 in the College of Education at the University of Wisconsin—River Falls.

1. An expanded version of this paper is scheduled to appear in Ekstrom, R. B., & Smith, D. (Eds.). *The assessment of individuals with disabilities: A guide for practitioners*. Washington, DC: American Psychological Association.



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