

The Use of Recommended and Provided Testing Accommodations

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The Use of Recommended and Provided Testing Accommodations¹

Deitra Gibson, Frances B. Haeberli, Todd A. Glover, and Elizabeth A. Witter

Introduction

Both the reauthorization of the Individuals With Disabilities Education Act (IDEA '97) and the passage of the No Child Left Behind Act (2002) have increased the use of large-scale standardized assessments. With the necessity to test all children comes the responsibility to make assessments valid representations of each child's "true" ability. Thus far, educators have used accommodations in an attempt to facilitate participation and to improve the validity of the test scores of students with disabilities. Testing accommodations are changes in the way a test is administered or responded to by a student. Such changes have typically been categorized into five domains: (a) setting, (b) timing, (c) scheduling, (d) presentation, and (e) method of responding. To date, accommodations have mostly been selected on the basis of individualized education program (IEP) team recommendations for individual students. Additional documentation is needed of the types of accommodations recommended by student IEPs and classroom teachers. The present report is part of a larger study designed to systematically examine the accommodations recommended and provided to a group of fourth- and eighth-grade students. The purpose of this report is to describe accommodations dictated in these student IEPs or recommended by classroom teachers and then to examine the accommodations that were actually used.

Research on the IEP-Based Accommodations

According to a descriptive, posthoc analysis of 46 studies conducted by the National Center on Educational Outcomes between 1999 and 2002 (Thompson, Blount, & Thurlow, 2002), accommodations categorized as *presentation*, *method of responding*, *setting*, and *timing/scheduling* have been investigated most frequently. Only one study reviewed by Thompson et al. investigated motivational accommodations, assistance with test directions, equipment or assistive technology, and test-format accommodations. According to Thompson et al., the majority of researchers investigated individual accommodations, while 14 investigated accommodation packages. According to IDEA '97, accommodations should be recommended and/or provided on a case-by-case basis. Because these accommodations are individualized, it may be of interest to educators to describe the frequency with which accommodations are recommended and used.

Shriner and DeStefano (2003) conducted a 2-year study, part of which involved examining IEPs prior to training educators on IDEA requirements and useful accommodations for assessment. They found that many school personnel were unprepared to handle individual recommended accommodations. In many cases, teachers had to resort to blanket solutions, such as referring all special education students to a

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Use of Testing Accommodations

resource room for testing. In other instances, Shriner and DeStefano found that teachers offered accommodations not included in the students' IEPs, based on the teachers' own appraisal of students' needs. *Scheduling* and *setting* accommodations were most frequently provided, whereas *presentation* and *method of responding* accommodations were used less often.

There has been some concern surrounding teachers' ability to recommend appropriate accommodations. Fuchs et al. (2000) found that teachers did not differentiate between students who would or would not benefit from testing accommodations. Researchers have also found that teachers use their own judgments to select accommodations that they believe are valid and fair (Fuchs et al., 2000; McKevitt & Elliott, 2001).

Additional documentation is needed of accommodations *stipulated* within students' IEPs and the accommodations actually *implemented*. In order for testing accommodations to be an effective intervention for students with disabilities, the accommodations must be carried out with integrity. Researchers have been diligent about implementing the recommended accommodations. However, as discussed below, because some students resist or refuse accommodations, there are times when best practice is not achieved.

A New Taxonomy of Accommodations

With the advent of high-stakes testing, educators and parents have become concerned about whether accommodations affect the validity of standardized assessments. To assist in interpreting test results, testing experts at CTB/McGraw-Hill (2000) proposed a new taxonomy for categorizing accommodations according to the potential threats they pose to the validity of resulting test scores (see Table 1 for examples). According to the CTB system, an accommodation in Category 1 does not influence the interpretation of the test. If accommodations might have an effect on either the criterion-referenced or the norm-referenced interpretations of test results, then the accommodation is considered a Category 2 accommodation. A Category 3 accommodation may potentially affect both the criterion-referenced and the norm-referenced interpretations of test results and may actually alter the construct measured. If the IEP team believes that Category 3 accommodations are necessary to enable a student to complete an assessment, then alternative testing means should be considered (Shriner & DeStefano, 2003).

A limited number of published studies have explicitly examined the frequency and use of accommodations. This paper describes the prevalence of the accommodations recommended and provided as part of a larger study investigating the effects of testing accommodations on standardized test scores. The validity of the most frequently chosen and provided accommodations is described using the CTB/McGraw-Hill guidelines and taxonomy.

Use of Testing Accommodations

Method

Participants

Students. Eighty-five fourth-grade students and 106 eighth-grade students from 15 Wisconsin schools participated in the study. After attrition, 82 fourth-grade students and 99 eighth-grade students were administered a math test with accommodations, and 81 fourth-grade and 92 eighth-grade students were administered a reading test with accommodations.

All students were identified as individuals with disabilities, according to Wisconsin Department of Public Instruction guidelines. Wisconsin currently uses a categorical system for delivery of special education services. The identified disability categories of the participants included learning disability, cognitive disability, emotional-behavioral disability, visual impairment, and autism. All of the individuals were currently participating in the standardized accountability testing in their home schools and had IEPs that stipulated the use of at least one testing accommodation.

Teachers. Participating teachers ($n = 39$) identified the accommodations stipulated in each student participant's IEP and the additional accommodations recommended for trial using the Assessment Accommodations Checklist (AAC) (Elliott, Kratochwill, & Schulte, 1999). Each teacher circled those accommodations on the AAC that most closely matched those currently listed on the individual student's IEP. Each teacher also indicated additional accommodations they wanted used with the student on a trial basis for the purposes of this study. In recognition of their contribution of time, participating teachers received an honorarium of \$100.

Procedure and Research Design

The data for this study were part of a larger data set gathered to evaluate the effects of testing accommodations on the test scores of students with and without disabilities. Two specially designed research versions of the TerraNova Mathematics and TerraNova Reading tests (CTB/McGraw-Hill, 2000) were used. All participants were tested in randomly assigned pairs (a student with an identified disability and a student without an identified disability). Participating students were matched by grade level and school. Each student in regular educational programming was provided the accommodations package of the student with whom he or she was paired. The present analysis is based on the accommodations information gathered only on the students with disabilities.

A copy of the AAC (Elliott et al., 1999) was provided to the teachers for each participating student. The AAC is a tool designed to guide teachers, parents, and members of IEP teams in planning and selecting accommodations for use during testing with students who are receiving special education assistance in daily instruction. The AAC lists 67 accommodations organized into eight categories: (a) assistance prior to administering the test, (b) motivational accommodations, (c) scheduling accommodations, (d) setting accommodations, (e) assistance with test directions, (f)

Use of Testing Accommodations

assistance during the assessment, (g) equipment or assistive technology, and (h) test format accommodations. Within each category, there is an item designated “other” for documenting additional individualized accommodations. The AAC was useful for this research because it provided a process for translating accommodations that were articulated differently in student IEPs across school districts into a uniform set of accommodations.

This study examined the frequency of recommended testing accommodations in three domains: (a) accommodations stipulated in the IEP, (b) accommodations recommended by teachers using the AAC, and (c) accommodations actually used with the tests administered. The results were aggregated by grade level and total number of students. The 10 most frequently recommended accommodations and the 10 most frequently provided accommodations in each domain were identified. In addition, the CTB/McGraw-Hill (2000) taxonomy of testing accommodations was applied to each of the most frequently recommended and provided accommodations.

Results

Recommended Accommodations

Both IEP- and teacher-recommended accommodations were examined for the 85 fourth-grade and 106 eighth-grade students with disabilities. The proportion of students for whom each accommodation was recommended is shown in Table 2. Accommodations that involve providing assistance with test directions and during assessment, as well as scheduling and setting accommodations, were among those recommended to the greatest number of students. The 10 most frequently recommended accommodations are shown in Table 3. The proportion of students for whom recommendations were offered and the CTB/McGraw-Hill (2000) classification for potential threats to test validity are provided for each accommodation.

Provided Accommodations

Inability to administer accommodations, student refusal of accommodations, and technological and environmental constraints prevented test administrators from providing all of the IEP- and teacher-recommended accommodations for the TerraNova tests. After attrition, 82 fourth-grade and 99 eighth-grade students with disabilities were administered the math test, and 81 fourth-grade and 92 eighth-grade students with disabilities were administered the reading test. The proportion of students for whom each accommodation was provided for both the math and reading tests of the TerraNova assessment is shown in Table 4.

Accommodations that involved providing assistance with test directions and during assessment, as well as scheduling and setting accommodations, were among those provided to the majority of students. The 10 most frequently recommended accommodations were also the 10 most frequently provided accommodations for the math test (Table 5) and reading test (Table 6), with the exception of the accommodations of *administering practice activities* and *arranging for a special education teacher or*

Use of Testing Accommodations

other qualified person to administer the test. The latter two accommodations were provided to 23% and 17% of the students, respectively, for the math test, and to 22% and 37% of the students, respectively, for the reading test. Again, the CTB/McGraw-Hill (2000) classification for potential threats to test validity is provided for each accommodation.

Discussion

Accommodations Recommended

The results of this study suggest that IEP teams and teachers consistently recommended certain accommodations over others, lending support to previous research findings suggesting that teachers only recommend accommodations they believe to be practical, fair, and valid (Fuchs et al., 2000). Consistent with Shriner and DeStefano's (2003) findings, the accommodations most frequently chosen in this study included scheduling (e.g., *provide extra testing time*) and setting accommodations (*provide for a distraction-free space or alternative location for the student*). Other frequently recommended accommodations included assisting the students with the test directions (e.g., *read directions to student, simplify language in directions*) and assisting students during the assessment (e.g., *read question and content to students*).

Accommodations Provided

There were challenges to implementing some of the recommended accommodations. *Arrange for a special education teacher or other qualified person to administer the test* was a frequently recommended accommodation; however, because all students were administered the test in this manner, this aspect of the test administration was not considered an accommodation. When students refused any accommodation, researchers were instructed not to provide that particular accommodation. For example, *read question and content to students* was frequently recommended yet often refused by eighth-grade students. Overall, however, most of the accommodations recommended by the teachers were successfully provided.

CTB Guidelines and Taxonomy in Use

Using the CTB/McGraw-Hill (2000) guidelines for identifying accommodations that pose potential threats to test validity and the classifications used in Schulte and Elliott (2001), we classified the recommended and provided accommodations according to three categories:

- Category 1: Does not influence the interpretation of the test.
- Category 2: May influence the interpretation of the test.
- Category 3: Does influence the interpretation of the test.

Use of Testing Accommodations

Category 2 accommodations most frequently recommended and provided included *read questions and content to students* (only for the math test), *provide extra testing time*, and *read directions to students*. Category 3 accommodations most frequently recommended and provided included *read questions and content to students* (only for the reading test), *simplify language in directions (paraphrase)*, and *restate the question with more appropriate vocabulary or define unknown vocabulary in the question*. Because accommodations are rarely used in isolation, once any Category 2 or Category 3 accommodation is provided there is a potential threat to the validity of the test interpretation. Given the prevalence of recommended and provided Category 2 and 3 accommodations, it is important to explore whether these accommodations did in fact influence the validity of students' test scores. Such is the focus of the remainder of this project.

Implications for Practice

Category 2 and Category 3 accommodations were frequently recommended and provided in this study. If an accommodation in Category 2 or 3 alters what is being assessed, educators may need to consider whether that accommodation is necessary or whether an alternative assessment would be more appropriate. As mentioned, accommodations have historically and legally been based on teacher and IEP team recommendations. This particular study did not attempt to address whether the accommodations teachers selected for individual students' disabilities were appropriate. However, other research has called teachers' judgments about accommodations into question (Fuchs et al., 2000). School-wide training on how to select and implement accommodations may be warranted so that students receive appropriate support and accommodations to accomplish the intended goal of increasing the validity of test scores.

In naturalistic settings, Shriner and DeStefano (2003) found that the accommodations teachers were able to provide were inconsistent with students' IEPs. Research methods in this study helped to ensure that the accommodations listed for each participant were provided. With adequate resources, test administrators can provide many of the recommended accommodations. Future researchers might consider how the discussions of IEP teams can be used to support the effective selection and implementation of accommodations.

Use of Testing Accommodations

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Use of Testing Accommodations

Table 1
Assessment Accommodations Checklist and CTB/McGraw-Hill Categories

Accommodation	Category
Assistance prior to administering the test	
Teach test-taking skills	1
Administer practice activities	1
Motivational accommodations	
Provide treats, snacks, or prizes, as appropriate	1
Provide verbal encouragement of student's efforts	1
Encourage student who may be slow at starting to begin	1
Encourage student who may want to quit to sustain effort longer	1
Encourage student to remain on task	1
Scheduling accommodations	
Provide extra testing time (indicate how much on student form)	2
Allow frequent or extended rest breaks	1
Schedule testing over extra days	2
Administer the test at a time most beneficial to student	1
Setting accommodations	
Provide distraction-free space or an alternative location for the student (e.g., study carrel, front of classroom)	1
Place the student in the room or part of the room where he/she is most comfortable	1
Conduct the testing in a special education classroom	1
Conduct the testing at home or at a hospital location	1
Provide for an individual test administration	1
Provide special lighting	1
Provide adaptive or special furniture	1

Use of Testing Accommodations

Table 1 continued

Accommodation	Category
Setting accommodations (continued)	
Provide special acoustics	1
Play soft, calming music to minimize distractions	1
Allow the student freedom to move, stand, or pace during an individualized administration of the test	1
Assistance with test directions	
Read directions to student	2
Reread directions for each subtask as needed	2
Simplify language in directions (paraphrase)	3
Clarify student questions regarding what to do by asking the student about what is written in the test booklet	3
Underline verbs in the test directions	2
Circle or highlight the task in the directions	2
Have student reread and restate directions in his/her own words	2
Provide additional practice activities before administering the test	2
Use sign language or oral interpreters for directions and sample items	2
Color-code instructions to emphasize steps	2
Assistance during the assessment	
Arrange for a special education teacher or other qualified person to administer test	1
Read questions and content to student	2
Sign questions and content to student (if necessary)	2
Restate the question with more appropriate vocabulary or define unknown vocabulary in the question	3
Turn pages for the student	1
Record student's response (in writing or by audiotaping)	1

Use of Testing Accommodations

Table 1 continued

Accommodation	Category
Assistance during the assessment (continued)	
Assist the student in tracking the test items by pointing or by placing student's finger on the items	1
Provide spelling assistance, where appropriate	2
Have teacher sit near student	1
Equipment or assistive technology	
Text-talk converter	2
Speech synthesizer or electronic reader	1
Visual magnification devices	1
Auditory amplification devices	1
Masks or markers to maintain place	1
Tape recorder	
Recording response	1
To present test content	2
Computer or word processor for recording responses	1
Braille writer for recording responses	1
Communications device to indicate responses	1
Calculator	3
Manipulatives	2
Ruler	2
Pencils adapted in size or grip	1
Device that transforms print into a tactile form	3
Arithmetic tables	3
Written list of necessary formulas	3
Noise buffers	1

Use of Testing Accommodations

Table 1 continued

Accommodation	Category
Test format accommodations	
Use lined or grid paper for recording answers when only blank space is provided	2
Provide Braille or large-print editions of the test	3
Audiotape test questions	2
Change presentation format of written material (e.g., increase spacing between lines, reduce number of items per page, print one complete sentence per line)	2
Provide a copy or overhead transparency of diagrams/tables needed for tasks so student does not have to flip back and forth in test booklet	2
Use large-print answer document	1
Use test form with vertically arranged multiple-choice items that have an answer circle to the left of each choice	2
Provide cues such as stop signs or arrows on the test form	2
Mark responses in test book rather than on separate answer document	1
Use a computer for task presentation	2

Note. Category 1: Does not influence the interpretation of the test. Category 2: May influence the interpretation of the test. Category 3: Does influence the interpretation of the test.

Use of Testing Accommodations

Table 2
Percentage of Students for Whom Accommodations Were Recommended

Accommodations	IEP-recommended			Teacher-recommended			IEP- & teacher-recommended		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c
Assistance prior to administering the test									
Teach test-taking skills	26%	30%	28%	29%	1%	14%	55%	31%	42%
Administer practice activities	33%	28%	30%	35%	6%	19%	68%	34%	49%
Motivational accommodations									
Provide treats, snacks, or prizes, as appropriate	29%	26%	28%	29%	3%	15%	59%	29%	42%
Provide verbal encouragement of student's efforts	40%	40%	40%	35%	3%	17%	75%	42%	57%
Encourage student who may be slow at starting to begin	22%	7%	14%	15%	1%	7%	38%	8%	21%
Encourage student who may want to quit to sustain effort longer	27%	25%	26%	21%	4%	12%	48%	28%	37%
Encourage student to remain on task	26%	27%	27%	27%	3%	14%	53%	30%	40%

Use of Testing Accommodations

Table 2 continued

Accommodations	IEP-recommended			Teacher-recommended			IEP- & teacher-recommended		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c
Scheduling accommodations									
Provide extra testing time	76%	82%	80%	8%	10%	9%	85%	92%	89%
Allow frequent or extended rest breaks	29%	25%	27%	9%	0%	4%	39%	25%	31%
Schedule testing over extra days	47%	23%	34%	0%	0%	0%	47%	23%	34%
Administer the test at a time most beneficial to the student	6%	14%	10%	4%	0%	2%	9%	14%	12%
Setting accommodations									
Provide distraction-free space or an alternative location for the student	69%	62%	65%	14%	9%	12%	84%	72%	77%
Place the student in the room or part of the room where he/she is most comfortable	5%	12%	9%	2%	0%	1%	7%	12%	10%
Conduct the testing in a special education classroom	39%	35%	37%	0%	0%	0%	39%	35%	37%
Conduct the testing at home or at a hospital	0%	0%	0%	0%	0%	0%	0%	0%	0%

Use of Testing Accommodations

Table 2 continued

Accommodations	IEP-recommended			Teacher-recommended			IEP- & teacher-recommended		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c
Setting accommodations (continued)									
Provide for an individual test administration	21%	8%	14%	14%	0%	6%	35%	8%	20%
Provide special lighting	0%	0%	0%	0%	0%	0%	0%	0%	0%
Provide adaptive or special furniture	0%	0%	0%	0%	0%	0%	0%	0%	0%
Provide special acoustics	0%	0%	0%	0%	0%	0%	0%	0%	0%
Play soft, calming music to minimize distractions	1%	0%	1%	0%	0%	0%	1%	0%	1%
Allow the student freedom to move, stand, or pace during an individualized administration of the test	16%	0%	7%	16%	0%	7%	33%	0%	15%
Assistance with test directions									
Read directions to student	78%	80%	79%	9%	10%	10%	87%	91%	89%
Reread directions for each subtask as needed	52%	33%	41%	18%	7%	12%	69%	40%	53%
Simplify language in directions (paraphrase)	48%	55%	52%	19%	8%	13%	67%	62%	64%

Use of Testing Accommodations

Table 2 continued

Accommodations	IEP-recommended			Teacher-recommended			IEP- & teacher-recommended		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c
Assistance with test directions (continued)									
Clarify student questions regarding what they do by asking the student about what is written in the test booklet	19%	18%	18%	5%	7%	6%	24%	25%	24%
Underline verbs in the test instructions	1%	0%	1%	0%	0%	0%	1%	0%	1%
Circle or highlight the task in the directions	8%	0%	4%	16%	0%	7%	25%	0%	11%
Have student reread and restate directions in his/her own words	11%	13%	12%	11%	2%	6%	21%	15%	18%
Provide additional practice activities before administering the test	9%	2%	5%	19%	0%	8%	28%	2%	14%
Use sign language or oral interpreters for directions and sample items	0%	0%	0%	0%	0%	0%	0%	0%	0%
Color-code instructions to emphasize steps	4%	0%	2%	1%	0%	1%	5%	0%	2%

Use of Testing Accommodations

Table 2 continued

Accommodations	IEP-recommended			Teacher-recommended			IEP- & teacher-recommended		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c
Assistance during the assessment									
Arrange for a special education teacher or other qualified person to administer test	65%	51%	57%	6%	6%	6%	71%	57%	63%
Read questions and content to student	69%	65%	67%	7%	5%	6%	76%	70%	73%
Sign questions and content to student (if necessary)	0%	0%	0%	0%	0%	0%	0%	0%	0%
Restate the question with more appropriate vocabulary or define unknown vocabulary in the questions	38%	42%	40%	22%	10%	16%	60%	52%	55%
Turn pages for the student	1%	0%	1%	0%	0%	0%	1%	0%	1%
Record student's response (in writing or by audiotaping)	22%	8%	14%	6%	0%	3%	28%	8%	17%
Assist the student in tracking the test items by pointing or by placing student's finger on the items	18%	0%	8%	7%	0%	3%	25%	0%	11%
Provide spelling assistance, when appropriate	51%	33%	41%	8%	7%	7%	59%	40%	48%

Use of Testing Accommodations

Table 2 continued

Accommodations	IEP-recommended			Teacher-recommended			IEP- & teacher-recommended		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c
Assistance during the assessment (continued)									
Have teacher sit near student	12%	3%	7%	16%	0%	7%	28%	3%	14%
Equipment or assistive technology									
Text-talk converter	0%	0%	0%	0%	0%	0%	0%	0%	0%
Speech synthesizer or electronic reader	0%	0%	0%	0%	0%	0%	0%	0%	0%
Visual magnification devices	0%	0%	0%	0%	0%	0%	0%	0%	0%
Auditory amplification devices	0%	1%	1%	1%	0%	1%	1%	1%	1%
Masks or markers to maintain place	7%	0%	3%	6%	0%	3%	13%	0%	6%
Tape recorder	0%	0%	0%	0%	0%	0%	0%	0%	0%
Computer or word processor for recording responses	1%	6%	4%	0%	0%	0%	1%	6%	4%
Braille writer for recording responses	0%	0%	0%	0%	0%	0%	0%	0%	0%
Communications device to indicate responses	0%	0%	0%	1%	0%	1%	1%	0%	1%

Use of Testing Accommodations

Table 2 continued

Accommodations	IEP-recommended			Teacher-recommended			IEP- & teacher-recommended		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c
Equipment or assistive technology (continued)									
Calculator	20%	23%	21%	19%	2%	9%	39%	25%	31%
Manipulatives	19%	6%	12%	15%	0%	7%	34%	6%	18%
Ruler	9%	0%	4%	15%	0%	7%	25%	0%	11%
Pencils adapted in size or grip	2%	0%	1%	0%	0%	0%	2%	0%	1%
Device that transforms print into a tactile form	0%	0%	0%	0%	0%	0%	0%	0%	0%
Arithmetic tables	13%	0%	6%	19%	4%	10%	32%	4%	16%
Written list of necessary formulas	0%	5%	3%	0%	7%	4%	0%	11%	6%
Noise buffers	0%	2%	1%	0%	0%	0%	0%	2%	1%
Test format accommodations									
Use lined or grid paper for recording answers when only blank space is provided	6%	3%	4%	5%	3%	4%	11%	6%	8%
Provide Braille or large-print editions of the test	0%	0%	0%	0%	0%	0%	0%	0%	0%
Audiotape test questions	0%	0%	0%	0%	0%	0%	0%	0%	0%

Use of Testing Accommodations

Table 2 continued

Accommodations	IEP-recommended			Teacher-recommended			IEP- & teacher-recommended		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^a	Grade 8 ^b	All students ^c
Test format accommodations (continued)									
Change presentation format of written material	6%	8%	7%	5%	0%	2%	11%	8%	9%
Provide a copy or overhead transparency of diagrams/tables needed for tasks so student does not have to flip back and forth in test booklet	6%	0%	3%	5%	0%	2%	11%	0%	5%
Use large-print answer document	4%	0%	2%	0%	0%	0%	4%	0%	2%
Use test form with vertically arranged multiple-choice items that have an answer circle to the left of each choice	5%	0%	2%	0%	0%	0%	5%	0%	2%
Provide cues such as stop signs or arrows on the test form	13%	0%	6%	2%	3%	3%	15%	3%	8%
Mark responses in test book rather than on a separate answer document	21%	3%	11%	18%	3%	9%	39%	6%	20%
Use a computer for task presentation	0%	1%	1%	0%	0%	0%	0%	1%	1%

^a*n* = 85. ^b*n* = 106. ^c*n* = 191.

Use of Testing Accommodations

Table 3
Most Frequently Recommended Accommodations

Accommodation	Percentage of students ^a	CTB/McGraw-Hill category
Provide extra testing time	89%	2
Read directions to students	89%	2
Provide distraction-free space or an alternative location for the student	77%	1
Read questions and content to student	73%	2 or 3
Simplify language in directions (paraphrase)	65%	3
Arrange for a special education teacher or other qualified person to administer test	63%	1
Provide verbal encouragement of students' efforts	57%	1
Restate the question with more appropriate vocabulary or define unknown vocabulary in the question	56%	3
Reread directions for each subtask as needed	53%	1
Administer practice activities	49%	1

Note. Category 1: Does not influence the interpretation of the test. Category 2: May influence the interpretation of the test. Category 3: Does influence the interpretation of the test.

^aStudents in Grade 4 and Grade 8 combined, $n = 191$.

Use of Testing Accommodations

Table 4
Percentage of Students for Whom Accommodations Were Provided

Accommodations	Math test			Reading test		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^d	Grade 8 ^e	All students ^f
Assistance prior to administering the test						
Teach test-taking skills	40%	22%	30%	38%	20%	28%
Administer practice activities	32%	15%	23%	31%	14%	22%
Motivational accommodations						
Provide treats, snacks, or prizes, as appropriate	12%	14%	13%	20%	14%	17%
Provide verbal encouragement of student's efforts	73%	37%	54%	75%	35%	54%
Encourage student who may be slow at starting to begin	18%	1%	9%	19%	3%	10%
Encourage student who may want to quit to sustain effort longer	21%	9%	14%	25%	10%	17%
Encourage student to remain on task	30%	16%	23%	35%	20%	27%
Scheduling accommodations						
Provide extra testing time	62%	81%	72%	62%	88%	76%
Allow frequent or extended rest breaks	22%	9%	15%	26%	9%	17%
Schedule testing over extra days	9%	0%	4%	11%	0%	5%
Administer the test at a time most beneficial to the student	0%	0%	0%	0%	0%	
Setting accommodations						
Provide distraction-free space or an alternative location for the student	32%	16%	23%	35%	20%	27%
Place the student in the room or part of the room where he/she is most comfortable	5%	5%	5%	4%	3%	4%

Use of Testing Accommodations

Table 4 continued

Accommodations	Math test			Reading test		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^d	Grade 8 ^e	All students ^f
Setting accommodations (continued)						
Conduct the testing in a special education classroom	2%	6%	4%	4%	9%	6%
Conduct the testing at home or at a hospital	0%	0%	0%	0%	0%	0%
Provide for an individual test administration	13%	1%	7%	14%	1%	7%
Provide special lighting	0%	0%	0%	0%	0%	0%
Provide adaptive or special furniture	0%	0%	0%	0%	0%	0%
Provide special acoustics	0%	0%	0%	0%	0%	0%
Play soft, calming music to minimize distractions	0%	0%	0%	0%	0%	0%
Allow the student freedom to move, stand, or pace during an individualized administration of the test	10%	0%	4%	10%	0%	5%
Assistance with test directions						
Read directions to students	84%	70%	76%	89%	78%	83%
Reread directions for each subtask as needed	62%	19%	39%	5%	24%	39%
Simplify language in directions (paraphrase)	66%	42%	53%	58%	38%	47%
Clarify student questions regarding what they do by asking the student about what is written in the test booklet	15%	12%	13%	10%	12%	11%
Underline verbs in the test instructions	1%	0%	1%	1%	0%	1%
Circle or highlight the task in the directions	16%	0%	7%	12%	0%	6%

Use of Testing Accommodations

Table 4 continued

Accommodations	Math test			Reading test		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^d	Grade 8 ^e	All students ^f
Assistance with test directions (continued)						
Have student reread and restate directions in his/her own words	15%	0%	7%	11%	2%	6%
Provide additional practice activities before administering the test	0%	1%	1%	0%	1%	1%
Use sign language or oral interpreters for directions and sample items	0%	0%	0%	0%	0%	0%
Color-code instructions to emphasize steps	4%	0%	2%	1%	0%	1%
Assistance during the assessment						
Arrange for a special education teacher or other qualified person to administer test	21%	13%	17%	25%	13%	19%
Read questions and content to student	76%	54%	64%	67%	53%	60%
Sign questions and content to student (if necessary)	0%	0%	0%	0%	0%	0%
Restate the question with more appropriate vocabulary or define unknown vocabulary in the questions	51%	25%	37%	46%	23%	34%
Turn pages for the student	1%	0%	1%	1%	0%	1%
Record student's response (in writing or by audiotaping)	10%	1%	5%	7%	2%	5%
Assist the student in tracking the test items by pointing or by placing student's finger on the items	16%	0%	7%	16%	0%	8%
Provide spelling assistance, where appropriate	7%	3%	5%	9%	3%	6%
Have teacher sit near student	20%	2%	10%	21%	2%	5%

Use of Testing Accommodations

Table 4 continued

Accommodations	Math test			Reading test		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^d	Grade 8 ^e	All students ^f
Equipment or assistive technology						
Text-talk converter	0%	0%	0%	0%	0%	0%
Speech synthesizer or electronic reader	0%	0%	0%	0%	0%	0%
Visual magnification devices	0%	0%	0%	0%	0%	0%
Auditory amplification devices	1%	0%	1%	1%	0%	1%
Masks or markers to maintain place	0%	0%	0%	0%	0%	0%
Tape recorder	0%	0%	0%	0%	0%	0%
Computer or word processor for recording responses	1%	0%	1%	1%	0%	1%
Braille writer for recording responses	0%	0%	0%	0%	0%	0%
Communications device to indicate responses	0%	0%	0%	0%	0%	0%
Calculator	11%	11%	11%	0%	1%	1%
Manipulatives	13%	0%	6%	0%	0%	0%
Ruler	10%	0%	4%	0%	0%	0%
Pencils adapted in size or grip	0%	0%	0%	0%	0%	0%
Device that transforms print into a tactile form	0%	0%	0%	0%	0%	0%
Arithmetic tables	5%	0%	2%	0%	0%	0%
Written list of necessary formulas	0%	1%	1%	0%	0%	0%
Noise buffers	0%	0%	0%	0%	0%	0%
Other	1%	0%	1%	1%	0%	1%

Use of Testing Accommodations

Table 4 continued

Accommodations	Math test			Reading test		
	Grade 4 ^a	Grade 8 ^b	All students ^c	Grade 4 ^d	Grade 8 ^e	All students ^f
Test format accommodations						
Use lined or grid paper for recording answers when only blank space is provided	0%	3%	2%	0%	0%	0%
Provide Braille or large-print editions of the test	0%	0%	0%	0%	0%	0%
Audiotape test questions	0%	0%	0%	0%	0%	0%
Change presentation format of written material	1%	0%	1%	1%	0%	1%
Provide a copy or overhead transparency of diagrams/tables needed for tasks so student does not have to flip back and forth in test booklet	0%	0%	0%	0%	0%	0%
Use large-print answer document	4%	0%	2%	4%	0%	2%
Use test form with vertically arranged multiple-choice items that have an answer circle to the left of each choice	1%	0%	1%	1%	0%	1%
Provide cues such as stop signs or arrows on the test form	5%	1%	3%	4%	1%	2%
Mark responses in test book rather than on a separate answer document	16%	3%	9%	16%	0%	60%
Use a computer for task presentation	0%	0%	0%	100%	0%	0%

^a $n = 82$. ^b $n = 99$. ^c $n = 181$. ^d $n = 81$. ^e $n = 92$. ^f $n = 173$.

Use of Testing Accommodations

Table 5
Most Frequently Provided Accommodations for Math Test

Accommodation	Percentage of students ^a	CTB/McGraw-Hill category
Read directions to students	76%	2
Provide extra testing time	72%	2
Read questions and content to student	64%	2
Provide verbal encouragement of student's efforts	54%	1
Simplify language in directions (paraphrase)	53%	3
Reread directions for each subtask as needed	39%	1
Restate the question with more appropriate vocabulary or define unknown vocabulary in the questions	37%	3
Teach test-taking skills	30%	1
Provide distraction-free space or an alternative location for the student	23%	1
Administer practice activities	23%	1

^aStudents in Grade 4 and Grade 8 combined, $n = 181$.

Use of Testing Accommodations

Table 6
Most Frequently Provided Accommodations for Reading Test

Accommodation	Percentage of students ^a	CTB/McGraw-Hill category
Read directions to students	83%	2
Provide extra testing time	76%	2
Mark responses in test book rather than on a separate answer document	60%	1
Read questions and content to student	60%	3
Provide verbal encouragement of student's efforts	54%	3
Simplify language in directions (paraphrase)	47%	3
Reread directions for each subtask as needed	39%	1
Restate the question with more appropriate vocabulary or define unknown vocabulary in the questions	34%	3
Teach test-taking skills	28%	1
Provide distraction-free space or an alternative location for the student	27%	1

^aStudents in Grade 4 and Grade 8 combined, $n = 17$.