

# SRI International

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## **NATIONAL LONGITUDINAL TRANSITION STUDY-2 (NLTS2)**

### **PLANNED DIRECT ASSESSMENT CONTENT AND PROCESS**

#### **SRI Project 10492**

NLTS2 is being designed under Task Order 18 to SRI International and Research Triangle Institute under the Office of Special Education Programs' Initiative to Link Research and Practice to Improve Results for Individuals with Disabilities.



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## NLTS2 DIRECT ASSESSMENT CONTENT AND PROCESS

This document summarizes the current thinking regarding the role of a direct assessment of students' academic and social abilities in NLTS2, the content of such an assessment, and the process through which assessments will be administered. We address the following issues:

- The role of the direct assessment in NLTS2
- The timing of assessments in the data collection cycle
- The anticipated content of the assessment
  - Standard assessment
  - Alternative assessment
- Obtaining informed consent
- Assessment administrators
  - Who will conduct assessments
  - Recruiting, hiring, and training assessors
  - Reimbursing assessors
- Assessment procedures
  - Review parent information
  - Contact schools
  - Determine assessment and accommodations
  - Conduct assessments
- Submitting assessment results.

The current thinking regarding these issues draws heavily on the results of a technical work group that has spent much of the last year developing a direct assessment and accompanying procedures as part of the design contract for the Special Education Elementary Longitudinal Study (SEELS). It is anticipated that the NLTS2 Technical Work Group and/or other experts in assessment for older students will consider additions or alterations to the SEELS direct assessment content and procedures to reflect the difference between the two studies in the age range of students.<sup>1</sup>

### The Role of the Direct Assessment

The assessment of students with disabilities is an important feature of NLTS2. The academic and social abilities of students in secondary school can be thought of both as results of earlier education and as predictors of achievements of youth in their postschool years. In SEELS, which involves students in elementary and middle school, the emphasis is on assessments as outcome measures; they are conducted repeatedly in order to measure growth or change in the

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<sup>1</sup> SEELS is being designed under task order 6 of OSEP's Initiative to Link Research to Practice. It includes students ages 6 to 12 at the outset of the study.

abilities measured through the assessment. In contrast, the dominant role of the NLTS2 direct assessment is as a predictor of later outcomes; measures taken through a direct assessment of youth are intended to serve as important explanatory factors in understanding their later accomplishments. Thus, only one assessment of each student is required.

## **The Timing of Assessments**

Given the role of the direct assessment as a predictor of later outcomes, it must be conducted for as many youth as possible while they are still in secondary school. Logistically, this is the preferred approach as well, because the school is the location that is most conducive for conducting the assessment. This argues for the single assessment that is planned for NLTS2 being conducted as early in the study as possible, before large numbers of youth have graduated or dropped out of school. However, it is unlikely that the assessment could be accomplished in the first year of the study. Much of that year will be devoted to preparing for (i.e., programming) and conducting the parent interview, after which consent for the assessment must be secured (see discussion of this issue below). Thus, Year 2 of the study is the first feasible time for conducting assessments.

A further consideration regarding timing is that, to serve most effectively as a predictor of later outcomes, the assessment should be conducted for each student within a reasonably narrow age range. If the assessment were conducted for all students in the second year, students would be ages 14 to 18. It is unlikely that a measurement of abilities at age 14 would be as good a predictor of later outcomes as an assessment conducted later in a student's school career. The NLTS2 Technical Work Group recommended conducting assessments when youth are ages 16 to 18. Although three cohorts of youth would be within this age range in Year 2 (those who were 15, and 16 years old at the outset), the youngest two cohorts of students in the sample would be younger than this age range in Year 2; Year 4 would be the better assessment point for these two cohorts, when they will be 16 and 17 years of age. Thus, three cohorts of youth (approximately 6,500 youth<sup>2</sup>) would be eligible for assessment in Year 2 and two cohorts (approximately 3,650 youth) would be eligible for assessment in year 4.

## **Assessment Content**

Two assessments are planned for NLTS2: the standard assessment, which will be provided to the majority of youth; and an alternate assessment, which will be more suitable for youth with significant cognitive impairments.

As mentioned above, the precise content of the assessments has not been determined. However, we anticipate that the standard assessment will have the components indicated in Table 1. In addition, subtests regarding content knowledge in selected subject areas, possibly science and social studies, also are being considered. The components indicated in Table 1 are described below.

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<sup>2</sup> Approximately 11,500 youth will be included in the sample, or 2,600 per age cohort. However, it is anticipated that 10% will not have location information provided by schools and that 8% attrition per year will further reduce the size of the eligible sample each year.

<b>Table 1 POTENTIAL DIRECT ASSESSMENT INSTRUMENTS, ASSOCIATED TASKS, AND ESTIMATED TIME STANDARD ASSESSMENT</b>			
	<b>Assessment</b>	<b>Task</b>	<b>Estimated minutes</b>
Reading	Woodcock-Johnson Research Edition - Letter-Word Identification	Student identifies isolated letters-and words; it is not necessary that the student know the meaning of any words correctly identified.	5
	Woodcock-Johnson Research Edition - Passage Comprehension	Student reads a short passage and identifies a missing word.	5
Math	Woodcock-Johnson Research Edition - Applied Problems	Student analyzes and solves problems in mathematics; student decides the appropriate mathematical operations to use and which of the data to include in the calculation.	5
	Woodcock-Johnson Research Edition – Calculation	Student performs mathematical calculations ranging from simple addition to calculus, but is not required to make decisions about what operations to use or what data to include.	5
Aptitude	Woodcock-Johnson Research Edition – Composite measure of verbal and visual ability	Student completes phrase with words that indicate appropriate analogies; although the vocabulary remains relatively simple, the relationships among the words become increasingly complex.	5
Self-concept	Student Self Concept Scale (SCCS) - Portions of academic social and self-image subscales (secondary form)	Student rates his/her self-confidence in response to a variety of academic and social questions.	8
Attitude toward School	School Attitude Measure (SAM) - Motivation for schooling and student's sense of control over performance subscales (5 forms based on grade level)	Student is asked a series of semantic differential items related to engagement in school and the learning process.	14

### **Standard Assessment—Academic Component**

**Woodcock Johnson Research Edition Subtests.** Research editions of five subtests of the WJR3 Cognitive and Achievement Batteries were selected to be part of the SEELS direct assessment and are appropriate for NLTS2. The WJR3 is a good choice because it is a widely used measure and has a proven track record in the field of special education for both progress assessment and eligibility testing. In addition, it has new norm samples (1998-99) ranging in age from 2 to 90 years and is well-designed with respect to psychometric properties. The five subtests listed in Table 1 were selected from a group of more than 25 possible tests and reflect the emphasis on core academic skills. It would be reasonable to use these same tests for NLTS2 because academic skills continue to be important in secondary school and using the same tests would prove useful in comparing data from the two studies.

Beyond these subtests, it may be important to reflect in the assessment the fact that secondary school curriculum entails a shift from the emphasis on learning academic skills to the application of those skills to learning content. The selected subtests for SEELS may not be sufficient for NLTS2, where additional subtests related to general knowledge, social studies, and science might be needed to reflect content learning.

## **Standard Assessment—Social Emotional Component**

The SEELS stakeholder panel made very convincing arguments that social-emotional factors and the "student voice" should be included in the study, which was most feasible to do in the context of the direct assessment. Yet, the workgroup was divided as to whether the existing research and measurement technology for social/emotional factors was of high enough quality to warrant inclusion. Nonetheless, the group concluded that the notion of self-concept was important in the eyes of many study audiences and that its exclusion would be seen as a significant shortcoming in the study's design. The same view applies to NLTS2. However, NLTS2 is significantly different from SEELS in that the direct assessment is not the only contact with students in NLTS2; youth who are able to respond for themselves will be interviewed by telephone in waves 2 through 5. Thus, it is less clear than in SEELS that measures of social/emotional factors need to be included in the direct assessment, which is done only once per student. Including measures of such factors in the telephone interview would permit them to be assessed at several points in time and for change in these factors to be tracked. If the workgroup for NLTS2 determines that social/emotional factors be measured in the direct assessment, the following instruments can be considered.

**Student Self Concept Scale (SSCS).** Recent research suggests that self-concept is a multidimensional construct that is context sensitive. That is, students could have relatively high self-concepts in academic affairs but low ones in social settings. Thus, SEELS required an instrument that would provide measures of self-concept in multiple domains. Only a few available instruments meet this requirement. The workgroup selected the SSCS because it generates scale scores for academic self-concept, social self-concept, and overall self-image. However, because the instrument is too long to be used in its entirety, the group selected six items from each of the scales for use in SEELS. Because the NLTS2 advisory panel believed self-concept to be an important factor in the transition to adult life, the use of SSCS in its direct assessment would be a logical choice, particularly given the availability of multiple forms. However, to the extent that these concepts should be thought of as outcomes that could change over time as youth age, they should be measured repeatedly. This would argue for measures of self concept to be included in the youth telephone interview (first conducted in Year 3), rather than in the direct assessment.

**School Attitude Measure (SAM).** The SAM is intended to measure the underlying concept that a student's thoughts, interests, feelings, and attitudes are related to his/her interest in learning and in education generally. Of the five subscales available in the SAM, we selected the "motivation for schooling scale" and the "student's sense of control over performance scale." These content areas are equally important at the secondary level. Therefore, inclusion in the NLTS2 would be logical while student are still in school.

## **Alternate Assessment**

It should be the NLTS2 policy to include as many students as possible in the standard assessment. However, there are several situations in which the standard assessment might be inappropriate: (1) the skills represented in the standard assessment are not the focus of a student's educational program; (2) the results of the standard assessment may provide insufficient information to interpret its results validly without collecting additional information;

and (3) the standard assessment may not provide the most meaningful measures of student progress. The following components of the alternative assessment (summarized in Table 2) could be used for appropriate students in NLTS2.

Assessment	Task	Estimated minutes required	
Functional skills	Scale of Independent Behavior - Revised (SIBR) or the Adaptive Behavior Scale (ABS), and additional items related to the lower range of functioning from the Assessing Unique Educational Needs (AUEN)	Teacher rating of student's functional skills in a variety of domains	45
Deaf Students	ASL Assessment	Deaf student is videotaped as she/he responds to conversational prompts and retells a cartoon story. Tapes are coded with regard to 8 ASL grammatical structures	15
Blind and visual impairments	Texas School for the Blind and Visually Impaired Curriculum – Teacher checklist for Orientation and Mobility	Teacher rating of student's ability to navigate multiple contexts.	5

**Scales of Independent Behavior -Revised (SIBR) -- Adaptive Behavior Scale (ABS).**

The SEELS workgroup discussed several options related to alternate assessments. The possibility of including a performance assessment was discussed, but ultimately rejected because of the tight timeline, lack of available instruments, and difficulty in scoring. Therefore, the workgroup recommended an indirect assessment—a teacher rating—to serve as an alternate assessment focusing on functional skills. The group's suggestion was to review the SIBR and ABS for content domain overlap and either choose one of the instruments or create a composite of the two. In addition, the group noted that these and most other instruments include too few items that are relevant to the lower range of functioning. To compensate for this problem, the workgroup proposed that additional items selected from the AUEN be appended to the SIBR/ABS. These scales could be used in NLTS2 because they focus on broad domains of personal care, community living, vocational skills, social skills, and choice. However, the scales do not specifically address some work- or independence-readiness issues that are considered to be important in the transition process. Therefore, NLTS2 may consider other instruments (e.g., PASS).

**Assessment of ASL for deaf students.** Although literacy and communication issues are important for all students, they hold an especially important place in the experiences of deaf students because of the central importance of American Sign Language (ASL) in deaf culture. A central hypothesis in deaf education suggests that deaf students' proficiency in ASL may be related to their ability to learn English-based literacy skills. Further, there are many grammatical and syntactic features of sign language whose developmental processes are unknown and therefore cannot be linked to English acquisition. Clearly, the investigation of this question requires that there be adequate measures of ASL proficiency. Historically, there have been few such measures, but there have been some recent advances in the field that are being explored for use in SEELS. Thus, while the feasibility of this approach remains to be determined, the SEELS

design group is considering the possibility of videotaping students using ASL in conversation and story retelling contexts. They could be coded with respect to ASL grammatical features. The application of such an approach for deaf youth in NLTS2 would have value primarily in its predictive capacity for other domains. However, the older age range of youth in NLTS2 reduces the utility of this kind of assessment for understanding progress in school.

**Orientation and mobility assessment for students with visual impairments.** The assessment of orientation and mobility is considered essential for understanding the adjustment to school and community life of students with visual impairments. The SEELS workgroup suggested adopting a teacher-completed checklist from the Texas School for the Blind and Visually Impaired (TSBVI) that assesses orientation and mobility in the home, campus, commercial, and public transportation environments. Because it is a diagnostic tool, this checklist has limitations from a research perspective. However, it does provide important information relating to orientation and mobility and could be useful to NLTS2. The checklist is included as part of the survey of students' school programs that is being field test for NLTS2.

## **Obtaining Parental Consent**

The NLTS2 contractor should attempt to obtain informed consent for the direct assessment (and school data collection) from parents of NLTS2 youth under age 18 and from youth 18 years old and older. Although the contractor should propose an approach to obtaining consent, one potential approach could link the process of obtaining consent to the Year 1 parent interviews, as is being done in SEELS. At the completion of the parent interview, the interviewer could describe the upcoming school surveys and direct assessment, and encourage the parent to authorize release of school information and permit his or her child to participate in the assessment.

Consent forms could then be mailed within a few days of a completed interview requesting active consent. Forms also could be sent to families for whom no interview was completed (although the response rate from this group is likely to be lower). A letter could be included with the consent form, again describing the study and the data collection effort for which consent is sought.

Before the beginning of the school-level data collection, the contractor could send a second mailing to parents who had not returned a consent form. This mailing could include a description of NLTS2 and specifics about the school-level data collection effort, the staff surveys, and student assessment. This time, however, parent could be asked to return the form only if they do NOT want their child to participate in the student assessment or have their child's teachers complete the school surveys (passive consent).

Copies of completed and returned forms could be included in subsequent requests for school- and student-level information.

## **Assessment Administrators**

**Who are the assessors?** Having an assessment team familiar with the needs of students in special education and experienced with administering assessments is essential to the successful

collection of assessment data. It is expected that assessments will be conducted by trained on-site professionals (other than the student's own teacher). These will be individuals located in the community and preferably affiliated in some way with the sampled school district, local schools, or schools of education. Staff of the district student evaluation offices, current or former school psychologists, faculty in departments of education, current or former teachers, and private practitioners who do student assessments would be appropriate assessors.

**Recruiting, training, and supervising assessors.** One or more assessors (depending on the number of students per community) will need to be recruited through contacts with the school district special education director or, in schools with several students to be assessed, with the school principal. Recruitment should begin with sampled LEAs but may need to extend to neighboring districts or intermediate education units (IEUs). For locations that are particularly difficult to staff, have very few sampled students, or have other problems, a limited number of traveling assessors may be needed. The recruitment system should be able to accommodate the need to replace assessors on short notice in the event of poor performance or nonperformance.

A training program will need to maximize the accuracy and uniformity with which assessments are conducted and yet be reasonable in cost. Training materials will be a primary source of guidance in conducting assessments (materials will be developed as part of the design contract). "Self-checks" and video presentations can be included to facilitate assessor's learning of the material. Because assessors will be needed in more than 500 school districts, it is unlikely that bringing them together to train in person would be feasible.

The assessors are likely to have varying skills and experiences, and some may have no experience with assessing students with a particular disability, especially low-incidence disabilities (e.g., autism, deaf-blind). For this reason, ongoing supervision and technical assistance must be provided that is accessible, responsive, and individualized.

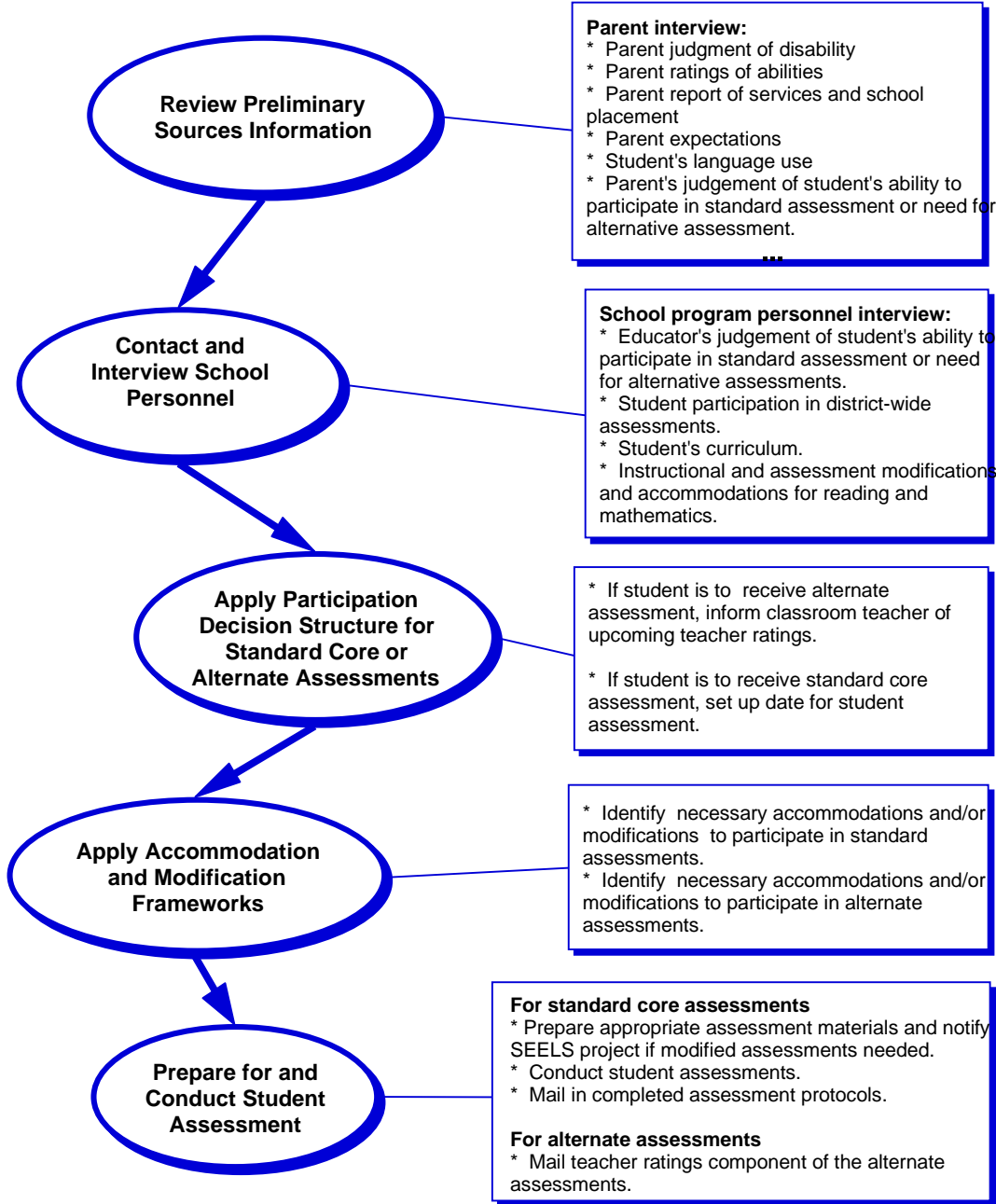
**Reimbursing assessors.** The contractor should specify an appropriate reimbursement plan for assessors. As an example, SEELS is reimbursing assessors at a fixed fee per completed assessment (currently estimated to be \$70 for the standard assessment and \$20 for an alternate assessment, with a \$50 payment to teachers completing the alternate assessment) plus compensation for orientation and training time (\$75). Further, reimbursement of youth themselves should be considered.

## **Assessment Procedures**

Exhibit 1 presents an overview of the possible steps that would comprise the direct assessment component.

**Review parent interview information.** Parent telephone interviews will have been conducted in the year before each of the two waves of NLTS2 direct assessments. These interviews will provide up-to-date information on the functional abilities of students and assistive devices they use. Assessors will be provided with this information as a first step in helping them determine the best approach to the assessment for each student.

**Exhibit 1.**  
**OVERVIEW OF POSSIBLE PROCEDURES FOR STUDENT ASSESSMENTS**



**Contacting schools.** Assessors will be responsible for coordinating with the schools and school personnel and/or with parents to establish convenient times, dates, and locations for administering the student assessments and for obtaining information on student accommodations.

The following procedures should be employed:

- **Initial teacher contact.** The assessors contact the sampled student’s school to learn the identity of the person best able to describe the student’s overall school program. The assessor contacts that person, using a standard form to guide him/her in explaining the objectives of the study and the direct assessment, and gathering information germane to carrying out the assessment, including language spoken or communication mechanism used, needed accommodations, and potential need for an alternate assessment. (Forms will be developed in the design contract.)
- **Determine student assessment and accommodation needs.** After the teacher contact, assessors review all the information about the student provided by the contractor and the teacher and reviews decision rules to identify appropriate assessment instruments and necessary adaptations and accommodations. Possible accommodations are indicated in Table 3.
- **Parental consent.** The contractor will have obtained active consent for the assessment from some parents and will have passive consent for the majority of the rest. This is likely to be sufficient in most schools/districts. However, if active parental consent has not been obtained and is required by the LEA, the assessor will contact the parent, communicate the objectives of the direct assessment, and request parental consent. If needed, assessors may mail or fax consent forms to parents. If active consent is not forthcoming, the assessor should attempt to arrange for the assessment directly with the parent, rather than involving the school. If a parent is unwilling to cooperate in this arrangement, the assessor will inform contractor that the student has been dropped from the assessment.
- **Schedule assessment.** The assessor will contact the classroom teacher, principal, other school personnel, and/or the parent to schedule a convenient time for the direct assessment and to identify a testing location.
- **Notification reminder.** Assessors will send a reminder to parents and the teacher (if the assessment is to be done at the school) regarding the scheduled date and time for the assessment.
- **Make final preparations.** Assessors will gather all the materials necessary to conduct student assessments, including assessment materials, reporting forms, documentation of consent and assessor status, any needed accommodation materials, and thank-you gifts for students (if included by the contractor).

**Conducting assessments.** On the scheduled day of a assessment, the assessor will arrive on time at the agreed-upon site and follow these steps to complete the assessment:

- **Establish rapport.** It will be important that assessors make students feel as relaxed as possible by engaging in normal conversation with them to establish rapport. They will explain the study and the direct assessment, as well as the format of questions that students will be asked. Students will be instructed to “do their best.” The assessors will answer any questions that the students have before beginning the assessment.

**Table 3  
ACCOMMODATIONS LIKELY TO BE NEEDED, BY DISABILITY**

	Disability					
	Deaf	Blind	Cognitive Impairment	Physical Impairment	Mild Disabilities	Speech/language
<b>Setting</b> One-to-one assistance On-task reminders Verbal prompts to initiate task Encouragement, praise, or recognition to continue. Directions repeated and/or clarified Adaptive furniture Additional examples						
<b>Timing</b> Periodic breaks during work sessions						
<b>Scheduling</b> Extended time to complete tasks Short sessions over several days						
<b>Presentation</b> Language other than English Directions repeated, clarified, or simplified Visual magnification device Auditory amplification device Reader to read the text Large print/magnified materials Sign language interpreter Braille						
<b>Response</b> Speech synthesizer Sign language interpreter Touch talker or other communication device Calculator Abacus Pencil grip, adaptive equipment for writing						

- Conduct assessment.** The assessors will conduct the academic assessments as prescribed in the protocols, providing the necessary accommodations, and record student responses appropriately on the scoring sheet. If there is a social portion to the assessment, it will conclude the session.
- Accommodation report.** The accommodations provided students are primarily important because they allow students to participate in the assessment. However, they also represent interesting data in and of themselves. For example, the numbers of students nationally with different disabilities who receive the variety of accommodations described in Table 3 will be useful information at the national level. Thus, it will be important to have a record of the accommodations provided in the assessment. To capture this information, the assessor should complete an accommodations form to describe the types of accommodations provided, planned and unplanned, in specific assessments.

- **Closing and thank you.** The assessors will close the direct assessment/student interview by thanking the students and praising their efforts. Assessors will then give students a small thank-you gift and return the students to the appropriate school or parent supervision.

**Submit data.** When an assessment is completed, the assessor will forward the scoring booklet to the contractor. Assessors should mail completed materials weekly, following written instructions on how to package and return the materials, including completing a submission form for each mailing. Completed scoring booklets should be sent via FedEx to allow tracking materials that are delayed or do not arrive at their intended destination.