



Neuropsychological Assessment Battery™

Administration, Scoring, and Interpretation Manual

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9 8 7 6 5 4 3 2 1

Reorder #RO-5088

Printed in the U.S.A.

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Introduction

The Neuropsychological Assessment Battery (NAB) is a comprehensive, modular battery of neuropsychological tests developed for the assessment of a wide array of cognitive skills and functions in adults, aged 18 to 97 years, with known or suspected disorders of the central nervous system. As described fully in chapter 1 of the *NAB Psychometric and Technical Manual* (White & Stern, 2003b), 10 innovative features were incorporated into the design of the NAB. These features are presented in Table 1.1.

The NAB was standardized on a national sample of 1,448 adults that comprises two normative samples. The demographically corrected norms ($N = 1,448$) are recommended for most situations encountered in clinical practice and are used to interpret an individual examinee's NAB performance relative to neurologically healthy individuals of the same age, sex, and education level. The age-based, U.S. Census-matched norms ($N = 950$) were developed to closely match the demographic characteristics of the current population of the United States with respect to the proportion of education level, sex, ethnicity, and geographic region in each age group, and these norms are used to interpret an individual's NAB performance relative to the U.S. population as a whole.

The NAB consists of six modules: a Screening Module and five domain-specific modules: Attention, Language, Memory, Spatial, and Executive Functions. Each NAB module has two equivalent/parallel forms (Form 1 and Form 2) created with identical task/content specifications and development methods (discussed in detail in chapter 2 of the *NAB Psychometric and Technical Manual* (White & Stern, 2003b). Both NAB forms consist of 36 individual tests, with all tests created specifically and originally for the NAB. Tables 1.2 through 1.7 provide an overview of the individual tests included in each NAB module.

Depending on which modules are administered, the NAB yields a variety of scores (see Table 1.8 for an overview). Each NAB test (with the exception of the Screening and Attention Module Orientation test and the Language Module Reading Comprehension test) results in one or more primary test scores and, in some cases, additional secondary and/or descriptive test scores. For the Screening Module, selected primary test T scores are summed to obtain each of the Screening domain scores (e.g., the two Screening Language test scores compose the Screening Language Domain score). The five Screening domain scores are summed to obtain the Total Screening Index.

Table 1.1
Innovative Features of the NAB

Feature
Screening for both impaired and normal performance (“dual-screening capability”)
Comprehensive coverage of functional domains
Combined strengths of flexible and fixed battery approaches to assessment
Avoidance of floor and ceiling effects
Reduced administration time
Entire battery normed on a single standardization group (“coordinated norming”)
Demographically corrected norms based on age, education level, and sex
Provision of an equivalent/parallel form
Increased user-friendliness for both examiner and examinee
Focus on ecological validity

**Table 1.2
Overview of Screening Module Tests**

Test	Acronym	Description	Primary function
Screening Orientation	S-ORN	Questions about orientation to self, time, place, and situation	Orientation
Screening Digits Forward	S-DGF	Repetition of orally presented digits	Auditory attentional capacity
Screening Digits Backward	S-DGB	Reversal of orally presented digits	Working memory for orally presented information
Screening Numbers & Letters	S-N&L	Two timed tasks (Parts A and B) involving letter cancellation and letter cancellation plus serial addition, respectively	Psychomotor speed, concentration, divided attention, and information processing speed
Screening Auditory Comprehension	S-AUD	Three-part test that requires the examinee to demonstrate comprehension of orally presented commands	Auditory language comprehension
Screening Naming	S-NAM	Visual confrontation naming task in which the examinee states the name of an object depicted in a photograph; semantic and phonemic cues are provided if necessary	Visual confrontation naming, word-finding
Screening Shape Learning	S-SHL	Single-trial visual learning task involving multiple-choice immediate recognition recall of five visual stimuli, followed by a delayed recognition task	Explicit learning of visual information, delayed recognition
Screening Story Learning	S-STL	Verbal learning task involving immediate and delayed free recall of a two-sentence story	Explicit learning and delayed recall of logically organized verbal information
Screening Visual Discrimination	S-VIS	Visual match-to-target paradigm, in which the examinee matches a target visual design from an array of four similar designs presented beneath the target	Visuoperceptual and visuospatial skills, attention to detail
Screening Design Construction	S-DES	Visuoconstruction assembly task using plastic manipulatives (tans) to copy two-dimensional target designs (tangrams)	Visuoconstruction, visuospatial skills
Screening Mazes	S-MAZ	Three timed paper-and-pencil mazes of increasing difficulty	Planning, impulse control, and psychomotor speed
Screening Word Generation	S-WGN	Timed task in which the examinee creates three-letter words from a group of six letters (two vowels, four consonants) that are presented visually	Verbal fluency, generativity

Note. Tests are presented in order of neuropsychological domain, not in order of test administration.

For each domain-specific module, a module index score is calculated as the sum of selected primary *T* scores in that module, summarizing the examinee's performance on that module. The Total NAB Index is based on the sum of the five module index scores, representing the examinee's overall performance on the full NAB. Chapter 4 provides a description of each of the test scores, as well as interpretive guidelines for the scores and indexes.

USING THE NAB

Appropriate Settings and Purpose of Examinations

The flexibility in which the NAB may be administered facilitates its use in a variety of settings for a wide range of applications. The NAB can be used in private practices, medical centers, psychiatric hospitals, inpatient and

Table 1.3
Overview of Attention Module Tests

Test	Acronym	Description	Primary function
Orientation ^a	ORN	Questions about orientation to self, time, place, and situation	Orientation
Digits Forward ^a	DGF	Repetition of orally presented digits	Auditory attentional capacity
Digits Backward ^a	DGB	Reversal of orally presented digits	Working memory for orally presented information
Dots	DOT	Delayed recognition span paradigm, in which an array of dots is exposed for a brief period, followed by a blank interference page, followed by a new array with one additional dot; examinee points to “new” dot	Visual working memory and visual scanning
Numbers & Letters ^b	N&L	Four timed tasks (Parts A, B, C, and D) involving letter cancellation, letter counting, serial addition, and letter cancellation plus serial addition, respectively	Psychomotor speed, concentration, sustained attention, focused or selective attention, divided attention, and information processing speed
Driving Scenes ^c	DRV	Daily Living task in which the examinee is first presented with a drawing of a driving scene as viewed from behind a steering wheel, and then shown another scene and asked to say and point to everything that is new, different, or missing relative to the previous scene; this is continued for four additional scenes	Visual working memory, visual scanning, attention to detail, and selective attention

^aScreening Module has the identical test. ^bScreening Module has a similar, abbreviated version of this test. ^cDaily Living test.

outpatient rehabilitation facilities, nursing homes, and mental health centers, as well as other settings. As a comprehensive neuropsychological test battery, the NAB is appropriate for outpatient evaluation, forensic examination, large-scale research studies, and many other clinical and research applications. Because of (a) its flexibility, (b) its potential for focused and shorter examination times, and (c) the Screening Module, which can be used on its own, the NAB is also appropriate for inpatient bedside consultation, interdisciplinary team evaluations, memory disorder clinic examinations, and focused research investigations, among other purposes.

Flexibility in Test Administration and Selection

One of the primary goals that guided development of the NAB was flexibility in both test administration approaches and the selection of specific tests. The NAB is unique among modern neuropsychological test batteries in that all of the tests in all of the modules have been co-normed on the same individuals. This co-norming provides all of the strengths of the fixed battery approach to neuropsychological assessment (see chapter 1 of the *NAB Psychometric and*

Technical Manual [White & Stern, 2003b] for further discussion of the fixed battery and other approaches to neuropsychological assessment). However, the use of Screening Module domain scores to guide subsequent domain-specific module administration allows the examiner to focus the neuropsychological evaluation and decrease the overall time required. Moreover, examiners can also choose to administer the entire NAB, regardless of Screening Module results, or to administer only specific modules or even specific tests, based on clinical or research needs. Table 1.9 presents the seven major examination approaches for the NAB described in the following sections.

Screening Module Alone

There are many clinical and research scenarios in which the examiner may wish to administer only the Screening Module, without any other NAB modules or tests. For example, the respondent may not be able to tolerate a lengthier examination, such as in many acute inpatient settings or in the assessment of more globally and severely impaired individuals. In other situations, a clinician may be interested only in *screening*, per se; that is, the results of the Screening Module would be used only to determine whether additional, more in-depth, follow-up examinations are necessary.

Table 1.4
Overview of Language Module Tests

Test	Acronym	Description	Primary function
Oral Production	OPD	Speech output task in which the examinee orally describes a picture of a family scene	Speech output, fluency
Auditory Comprehension ^a	AUD	Six-part test that requires examinee to demonstrate comprehension of orally presented instructions; tasks include performing one- to four-step commands, the concepts of before/after, above/below, and right/left, body-part identification, yes/no questions, and paper folding	Auditory language comprehension
Naming ^a	NAM	Visual confrontation naming task in which the examinee states the name of a pictured object; semantic and phonemic cues are provided if necessary	Visual confrontation naming, word-finding
Reading Comprehension	RCN	Two-part test that requires the examinee to demonstrate reading comprehension of single words and of sentences by pointing to multiple choice written words and sentences that match visual stimuli	Reading comprehension of single words and sentences
Writing	WRT	Narrative writing task in which the examinee is shown the same drawing of a family scene used in the Oral Production test and asked to write about it; the writing sample is scored with regard to legibility, syntax, spelling, and conveyance	Narrative writing, verbal fluency, spelling
Bill Payment ^b	BIL	Daily Living task in which the examinee is given a utility bill statement, check ledger, check, and envelope, and asked to follow a series of eight commands requiring oral and written responses of increasing complexity	Auditory language comprehension, reading comprehension, writing, simple calculations, speech output

^aScreening Module has a similar, abbreviated version of this test. ^bDaily Living test.

In both of these types of situations (and in other scenarios in which the Screening Module is used on its own), performance on the Screening Module would be interpreted on the basis of the Total Screening Index, the five Screening domain scores, and appropriate primary, secondary, and descriptive scores from individual Screening module tests. However, as described in more detail in chapter 4, clinical decision making based on results from only the Screening Module must be made with appropriate caution, given the abbreviated nature of the evaluation.

Screening Module Followed by One or More of the Five Main Modules

The NAB was developed such that the Screening Module predicts performance on the five main modules *at both ends* of the ability spectrum. This allows users in certain clinical applications to determine which patients perform so poorly *or* so well on sections of the Screening Module that the administration of the corresponding domain-specific module(s) is unnecessary. That is, if a patient's performance in a specific area of functioning in the Screening Module

(e.g., Screening Attention Domain score) is severely impaired (which is predictive of severely impaired performance on the related domain-specific module), there would be little additional gain in administering the entire module (e.g., Attention Module). Conversely, if a patient's performance in a specific area of functioning in the Screening Module is in the above average or superior range (which is predictive of similarly excellent performance on the related domain-specific module), again, there would be little additional gain in administering the entire module.

As described in greater detail in chapter 6 of the *NAB Psychometric and Technical Manual* (White & Stern, 2003b), one of the primary goals of developing the NAB was to provide "dual-screening" capability. Specifically, the goal was to construct Screening Module domain score ranges that predict performance on the corresponding full NAB modules at both the severely impaired and above average ends of the index score distribution. One way to use the Screening Module is to use Screening domain scores to identify individuals who are so impaired that they are expected to obtain similarly impaired scores on the

**Table 1.5
Overview of Memory Module Tests**

Test	Acronym	Description	Primary function
List Learning	LL	Verbal list learning task involving three learning trials of a 12-word list, followed by an interference list, and then short delay free recall, long delay free recall, and long delay forced-choice recognition tasks; the word list includes three embedded semantic categories with 4 words in each category	Explicit learning of verbal information across trials, delayed free recall, and delayed recognition
Shape Learning ^a	SHL	Visual learning task involving three learning trials and multiple-choice immediate recognition of nine visual stimuli, followed by delayed recognition and forced-choice recall	Explicit learning of visual information across trials, delayed recognition
Story Learning ^a	STL	Verbal learning task involving immediate and delayed free recall of a five-sentence story; two learning trials are provided, and recall is scored for both verbatim and gist elements	Explicit learning and delayed free recall of logically organized verbal information
Daily Living Memory ^b	DLM	Verbal learning task involving three-trial learning with immediate recall, delayed recall, and delayed multiple-choice recognition of information encountered in daily living, including medication instructions, and a name, address, and phone number	Explicit learning and delayed free and recognition recall of verbal information likely to be encountered in daily living

^aScreening Module has a similar, abbreviated version of this test. ^bDaily Living test.

**Table 1.6
Overview of Spatial Module Tests**

Test	Acronym	Description	Primary function
Visual Discrimination ^a	VIS	Visual match-to-target paradigm, in which the examinee matches a target visual design from an array of four similar designs presented beneath the target	Visuoperceptual and visuospatial skills, attention to detail
Design Construction ^a	DES	Visuoconstruction assembly task using plastic manipulatives (tans) to copy two-dimensional target designs (tangrams)	Visuoconstruction, visuospatial skills
Figure Drawing	FGD	Visuoconstruction drawing task involving a copy and immediate recall of a geometric figure of moderate complexity; the production is scored for the presence, accuracy, and placement of the elements, as well as overall organizational skill	Visuoconstruction, visuospatial skill, visual organization, and encoding of visuospatial material
Map Reading ^b	MAP	Daily Living task in which the examinee answers questions (presented both orally and in writing) about a city map that has a compass rose and mileage legend	Visuospatial skill, spatial/directional and right-left orientation, and visual scanning

^aScreening Module has a similar, abbreviated version of this test. ^bDaily Living test.

corresponding domain-specific module, thus obviating the need to administer this main module. Conversely, another use of the Screening Module is to use Screening domain scores to identify individuals who are fully intact and who are expected to obtain similarly intact/above average scores

on the corresponding domain-specific module, also obviating the need to administer this main module. Using this empirical approach, the examiner would administer the Screening Module and then, based on those results, administer only the domain-specific module(s) that would yield

Table 1.7
Overview of Executive Functions Module Tests

Test	Acronym	Description	Primary function
Mazes ^a	MAZ	Seven timed paper-and-pencil mazes of increasing difficulty	Planning, impulse control, and psychomotor speed
Judgment ^b	JDG	Daily Living test in which the examinee answers 10 judgment questions pertaining to home safety, health, and medical issues	Judgment and decisional capacity about issues and situations likely to be encountered in daily living
Categories	CAT	Classification and categorization task in which the examinee generates different two-group categories based on photographs and verbal information (e.g., name, occupation, place of birth, date of birth, marital status) about six people	Concept formation, cognitive response set, mental flexibility, generativity
Word Generation ^a	WGN	Timed task in which the examinee creates three-letter words from a group of eight letters (two vowels, six consonants) that are presented visually	Verbal fluency, generativity

^aScreening Module has a similar, abbreviated version of this test. ^bDaily Living test.

meaningful additional data (see Figures 1.1 through 1.4 for examples of this approach). Table 1.10 presents the decision accuracy rates for the recommendation for administration of full modules.

Of course, these screening recommendations are merely guidelines for users who may wish to follow them. Many referral questions and applications of the NAB will no doubt require administration of the entire NAB, and professional clinicians should use their judgment when determining the need for administration of the entire NAB (i.e., Screening Module and the five main modules).

An examiner could also begin by administering the Screening Module and follow it with a selection of main modules based on clinical or research needs, rather than on the empirically based recommendations. For example, a clinician may want or need a brief, overall assessment of an individual's neuropsychological functioning, as well as a more in-depth examination of an area of functioning about which the patient has complaints, such as memory. In this case, the results of the Screening Module memory tests might be in the above average or better range but the examiner would still administer the entire Memory Module in order to obtain a more detailed assessment of learning and memory.

Screening Module Followed by the Full NAB

The NAB screening recommendations for follow-up administration of a module were developed to ensure that at least 95% of individuals who would be expected to require administration of a NAB module are in fact recommended for that module. That is, the goals of the screening

recommendations were to maximize the hit rate and minimize the false-negative rate. The effect of this conservative screening criterion aggregates across the five Screening domain scores, and the practical effect is that many, if not the majority, of the individuals who receive the NAB Screening Module will obtain Screening domain scores that lead to recommendations to administer all five main modules.

Administration of the full NAB (i.e., all five domain-specific modules) may even be desired if fewer than five modules are recommended by the Screening Domain scores. One primary reason for administering the full NAB irrespective of the screening recommendation is to obtain the Total NAB Index score, which may be relevant for certain referral questions. In addition, the full NAB allows for interpretation of various discrepancies between module index and Total NAB Index scores.

Full NAB

Another examination approach consists of administering the full NAB (i.e., all five domain-specific modules) without administering the Screening Module. Even when all six modules are administered, the total testing time is typically less than 3 hours, making this a viable possibility even in settings in which time is limited due to fiscal or other constraints. By administering the full NAB, the clinician will be able to utilize the complete set of normative data and between-score comparisons (i.e., score discrepancies), as well as obtain a more thorough assessment of all areas of functioning tapped by the NAB, even when the respondent may be in either the severely impaired or the above average ranges of functioning. Moreover, administration of all five domain modules allows the examiner to calculate the Total NAB Index.

Table 1.8
Types of NAB Scores

Score	Description	Normative metric
Test scores		
Primary	Primary scores are the most important scores for interpreting performance on a particular NAB test. In most cases, there is only one primary score per test, but several NAB tests yield multiple primary scores. Primary scores are interpreted by transforming the raw score to a <i>z</i> score and then referencing the <i>z</i> score to one of several different normative samples. Primary scores may also contribute to Screening Domain, Total Screening Index, Module Index, and Total NAB Index scores.	<i>T</i> scores ($M = 50, SD = 10$)
Secondary	Secondary scores are less important for interpretation than primary scores but are nonetheless viewed as significant sources of information. The lower reliability coefficients and nonparametric distributions of the secondary scores do not support their conversion to <i>T</i> scores. Secondary scores do not contribute to Screening Domain, Total Screening Index, Module Index, and Total NAB Index scores.	Percentiles
Descriptive	Descriptive scores have lower reliability and/or highly skewed distributions for normal individuals but are included in the NAB as qualitative indicators of performance.	Cumulative percentages
Composite scores for the Screening Module		
Screening Domain scores	Screening Domain scores represent the sum of selected primary test <i>T</i> scores for a given functional domain in the Screening Module, summarizing the examinee's performance on Screening Module tests within that given functional domain. These scores are used to determine the need for subsequent administration of one or more main NAB Modules.	Standard score ($M = 100, SD = 15$)
Total Screening Index	The Total Screening Index is based on the sum of the five Screening domain scores, representing the examinee's overall performance on the Screening Module.	Standard score ($M = 100, SD = 15$)
Composite scores for the main modules		
Module Index	Module Index scores are based on the sum of selected primary test <i>T</i> scores, representing a summary of performance on that module. Module Index scores are provided for all five main NAB modules.	Standard score ($M = 100, SD = 15$)
Total NAB Index	The Total NAB Index score is based on the sum of the five main module index scores (excluding the Screening Module). It represents the examinee's overall performance on the NAB.	Standard score ($M = 100, SD = 15$)

Full NAB Followed by Idiographic or Additional Testing

As discussed in chapter 1 of the *NAB Psychometric and Technical Manual* (White & Stern, 2003b), respondents to the publisher's survey of neuropsychological assessment needs (Stern & White, 2000) strongly endorsed the view that a new, comprehensive neuropsychological test battery should *not* include measures of motor functioning and mood/personality. Although the NAB taps most areas of

neuropsychological functioning, there are occasions when the examiner may wish to combine additional instruments with a NAB assessment. In this "idiographic" testing (i.e., additional measures individually tailored to the specific test findings and to the specific characteristics of the referral question), the examiner can expand upon the NAB assessment with his or her favored instruments, either on a case-by-case basis or as a usual and routine method of assessment.

**Table 1.9
Examination Approaches With the NAB**

Approach
Screening Module alone
Screening Module followed by one or more of the five main modules
Screening Module followed by Full NAB
Full NAB
Full NAB followed by idiographic or additional testing
Specific module or modules
Specific test or tests

Specific Module or Modules

Rather than administer the NAB as a complete battery or use the Screening Module to guide further assessment, the examiner may wish to administer one or more specific modules. For example, a speech/language pathologist may use the NAB Language Module as a relatively comprehensive aphasia examination in order to plan and track therapy.

Another example of this approach is a researcher who requires an in-depth assessment of learning and memory but not other areas of functioning, and administers only the Memory Module as part of the research protocol. These examples are meant only to be illustrative and are not exhaustive of the specific module(s) approach to using the NAB.

Specific Test or Tests

The flexibility inherent in the NAB also allows the examiner to select individual tests from each module, rather than administer an entire domain-specific module, when this type of non-battery-focused assessment is clinically warranted or appropriate for a research protocol. For example, a clinician who is reexamining a patient who has previously been administered another battery of tests may wish to readminister many or all of the previous instruments in order to make a direct comparison. However, the clinician may then wish to add individual NAB tests to that battery that measure additional areas of functioning and/or may wish to take advantage of extensive normative data available for those NAB tests.

**Table 1.10
Recommendations for Administering NAB Modules Based on Screening Domain Scores**

Screening Domain score range	Decision accuracy rates						Overall correct classification rate
	Sensitivity	Specificity	False-positive rate	False-negative rate	Positive-predictive power	Negative-predictive power	
Screening Attention Domain							
Moderately-to-severely impaired cutoff (≤ 74)	.95	.59	.41	.05	.99	.16	.95
Above average cutoff (≥ 114)	.95	.43	.57	.05	.79	.80	.79
Screening Language Domain							
Moderately-to-severely impaired cutoff (≤ 75)	.95	.75	.25	.05	.99	.17	.95
Above average cutoff (≥ 126)	.96	.03	.97	.04	.69	.25	.67
Screening Memory Domain							
Moderately-to-severely impaired cutoff (≤ 75)	.95	.71	.29	.05	.99	.11	.95
Above average cutoff (≥ 119)	.95	.21	.79	.05	.72	.68	.72
Screening Spatial Domain							
Moderately-to-severely impaired cutoff (≤ 74)	.95	.44	.56	.05	.99	.05	.95
Above average cutoff (≥ 120)	.95	.22	.78	.05	.72	.67	.72
Screening Executive Functions Domain							
Moderately-to-severely impaired cutoff (≤ 73)	.95	.67	.33	.05	.99	.10	.95
Above average cutoff (≥ 115)	.95	.38	.62	.05	.77	.77	.77

EQUIVALENT FORMS

It is not uncommon in neuropsychological assessment to reevaluate a patient in order to monitor and document changes in functioning over time. For example, to determine whether an individual's functioning is worsening, a pattern suggestive of a degenerative process, many clinicians will reevaluate the patient at appropriate intervals (e.g., 6 months). Moreover, with advances in pharmacologic treatments of neurologic disorders, neuropsychological examinations are more often necessary to track treatment response over time. The two equivalent forms of the NAB were developed to facilitate such reevaluation while

avoiding the practice effects that often limit the interpretation of other test scores with no adequate equivalent forms. As detailed in chapter 4 of the *NAB Psychometric and Technical Manual* (White & Stern, 2003b), the two forms of the NAB have excellent equivalent-form reliability. In addition, 6-month test-retest reliability data indicate good temporal stability across this retest interval.

Because of the excellent equivalent-form reliability and because the normative data are not dependent on form, it is not critical which form is initially administered. However, it is important that the examiner note in any report or database which form is given in order to ensure that the alternate form is administered at a second examination.

Screening Domain Score	Standard Score Range	Administration Recommendation for Main Module
Screening Attention Domain (S-ATT)	45-74	<input type="checkbox"/> Do not administer NAB Attention Module
	75-113	<input checked="" type="checkbox"/> Administer NAB Attention Module
	114-155	<input type="checkbox"/> Do not administer NAB Attention Module
Screening Language Domain (S-LAN)	45-75	<input checked="" type="checkbox"/> Do not administer NAB Language Module
	76-125	<input type="checkbox"/> Administer NAB Language Module
	126-155	<input type="checkbox"/> Do not administer NAB Language Module
Screening Memory Domain (S-MEM)	45-75	<input type="checkbox"/> Do not administer NAB Memory Module
	76-118	<input type="checkbox"/> Administer NAB Memory Module
	119-155	<input checked="" type="checkbox"/> Do not administer NAB Memory Module
Screening Spatial Domain (S-SPT)	45-74	<input type="checkbox"/> Do not administer NAB Spatial Module
	75-119	<input checked="" type="checkbox"/> Administer NAB Spatial Module
	120-155	<input type="checkbox"/> Do not administer NAB Spatial Module
Screening Executive Functions Domain (S-EXE)	45-73	<input type="checkbox"/> Do not administer NAB Executive Functions Module
	74-114	<input checked="" type="checkbox"/> Administer NAB Executive Functions Module
	115-155	<input type="checkbox"/> Do not administer NAB Executive Functions Module

Figure 1.1. Sample screening recommendations for follow-up administration of the Attention, Spatial, and Executive Functions Modules.

Screening Domain Score	Standard Score Range	Administration Recommendation for Main Module
Screening Attention Domain (S-ATT)	45-74	<input type="checkbox"/> Do not administer NAB Attention Module
	75-113	<input checked="" type="checkbox"/> Administer NAB Attention Module
	114-155	<input type="checkbox"/> Do not administer NAB Attention Module
Screening Language Domain (S-LAN)	45-75	<input checked="" type="checkbox"/> Do not administer NAB Language Module
	76-125	<input type="checkbox"/> Administer NAB Language Module
	126-155	<input type="checkbox"/> Do not administer NAB Language Module
Screening Memory Domain (S-MEM)	45-75	<input type="checkbox"/> Do not administer NAB Memory Module
	76-118	<input checked="" type="checkbox"/> Administer NAB Memory Module
	119-155	<input type="checkbox"/> Do not administer NAB Memory Module
Screening Spatial Domain (S-SPT)	45-74	<input type="checkbox"/> Do not administer NAB Spatial Module
	75-119	<input checked="" type="checkbox"/> Administer NAB Spatial Module
	120-155	<input type="checkbox"/> Do not administer NAB Spatial Module
Screening Executive Functions Domain (S-EXE)	45-73	<input type="checkbox"/> Do not administer NAB Executive Functions Module
	74-114	<input checked="" type="checkbox"/> Administer NAB Executive Functions Module
	115-155	<input type="checkbox"/> Do not administer NAB Executive Functions Module

Figure 1.2. Sample screening recommendations for follow-up administration of the Attention, Memory, Spatial, and Executive Functions Modules.

Screening Domain Score	Standard Score Range	Administration Recommendation for Main Module
Screening Attention Domain (S-ATT)	45-74	<input type="checkbox"/> Do not administer NAB Attention Module
	75-113	<input type="checkbox"/> Administer NAB Attention Module
	114-155	<input checked="" type="checkbox"/> Do not administer NAB Attention Module
Screening Language Domain (S-LAN)	45-75	<input type="checkbox"/> Do not administer NAB Language Module
	76-125	<input checked="" type="checkbox"/> Administer NAB Language Module
	126-155	<input type="checkbox"/> Do not administer NAB Language Module
Screening Memory Domain (S-MEM)	45-75	<input type="checkbox"/> Do not administer NAB Memory Module
	76-118	<input type="checkbox"/> Administer NAB Memory Module
	119-155	<input checked="" type="checkbox"/> Do not administer NAB Memory Module
Screening Spatial Domain (S-SPT)	45-74	<input type="checkbox"/> Do not administer NAB Spatial Module
	75-119	<input type="checkbox"/> Administer NAB Spatial Module
	120-155	<input checked="" type="checkbox"/> Do not administer NAB Spatial Module
Screening Executive Functions Domain (S-EXE)	45-73	<input type="checkbox"/> Do not administer NAB Executive Functions Module
	74-114	<input type="checkbox"/> Administer NAB Executive Functions Module
	115-155	<input checked="" type="checkbox"/> Do not administer NAB Executive Functions Module

Figure 1.3. Sample screening recommendations for follow-up administration of the Language Module.

Screening Domain Score	Standard Score Range	Administration Recommendation for Main Module
Screening Attention Domain (S-ATT)	45-74	<input type="checkbox"/> Do not administer NAB Attention Module
	75-113	<input checked="" type="checkbox"/> Administer NAB Attention Module
	114-155	<input type="checkbox"/> Do not administer NAB Attention Module
Screening Language Domain (S-LAN)	45-75	<input checked="" type="checkbox"/> Do not administer NAB Language Module
	76-125	<input type="checkbox"/> Administer NAB Language Module
	126-155	<input type="checkbox"/> Do not administer NAB Language Module
Screening Memory Domain (S-MEM)	45-75	<input checked="" type="checkbox"/> Do not administer NAB Memory Module
	76-118	<input type="checkbox"/> Administer NAB Memory Module
	119-155	<input type="checkbox"/> Do not administer NAB Memory Module
Screening Spatial Domain (S-SPT)	45-74	<input checked="" type="checkbox"/> Do not administer NAB Spatial Module
	75-119	<input type="checkbox"/> Administer NAB Spatial Module
	120-155	<input type="checkbox"/> Do not administer NAB Spatial Module
Screening Executive Functions Domain (S-EXE)	45-73	<input type="checkbox"/> Do not administer NAB Executive Functions Module
	74-114	<input checked="" type="checkbox"/> Administer NAB Executive Functions Module
	115-155	<input type="checkbox"/> Do not administer NAB Executive Functions Module

Figure 1.4. Sample screening recommendations for follow-up administration of the Attention and Executive Functions Modules.