# KNIGHT ADRC PSYCHOMETRIC TEST CODEBOOK

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## Standard Knight ADRC Psychometric Battery (alphabetical order)

<table>
<thead>
<tr>
<th>Test</th>
<th>Variable Name</th>
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<tbody>
<tr>
<td>Benson Complex Figure Copy, Immediate</td>
<td>UDSBENTC</td>
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<tr>
<td></td>
<td>Delayed</td>
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<td></td>
<td>UDSBENTD</td>
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<td></td>
<td>Recognition</td>
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<td></td>
<td>UDSBENSRS</td>
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<tr>
<td>Category Fluency (Animals, Vegetables)</td>
<td>ANIMALS, VEG</td>
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<td>Color Only Stroop</td>
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<tr>
<td>Craft Story 21 Recall, Immediate</td>
<td>CRAFTVRS, CRAFTURS</td>
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<td></td>
<td>CRAFTDVR, CRAFTDRE</td>
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<td></td>
<td>CRAFTDTI, CRAFTCUE</td>
</tr>
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<td></td>
<td>Time elapsed, cued</td>
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<tr>
<td>Free and Cued Selective Reminding Test</td>
<td>SRTfree</td>
</tr>
<tr>
<td>Handedness</td>
<td>PSY 232, PSY 233, PSY 234</td>
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<td></td>
<td>PSY 113, PSY 114</td>
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<tr>
<td>Multilingual Naming Test (MINT)</td>
<td>MINTTOTS, MINTTOTW</td>
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<td>MINTSCNG, MINTSCNC</td>
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<td>Test Name</td>
<td>Code</td>
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<td>MINTPCNG, MINTPCNC</td>
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<td>Number Span Test: Backward</td>
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<td>Slosson Oral Reading Test</td>
<td>simonnumber</td>
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<tr>
<td>Stroop Switch</td>
<td>SLOSSON</td>
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<tr>
<td>Switching Task (CVOE)</td>
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<td>Tapping Task</td>
<td>switchmixed</td>
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<td>Trailmaking A</td>
<td>tappping</td>
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<td>Trailmaking B</td>
<td>TRAILA, TRAIL_C</td>
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<td>TRAILARR, TRAILALI</td>
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<td></td>
<td>TRAILB, TrialB_C</td>
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<td></td>
<td>TRAILBRR, TRAILBLI</td>
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<td>Verbal Fluency: Phonemic Test</td>
<td>UDSVERFC, UDSVERFN</td>
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<td>UDSVERNF, UDSVERLC</td>
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<td>Wechsler Adult Intelligence Scale</td>
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<td>Block Design</td>
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<td>Information</td>
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<td>Wechsler Adult Intelligence Scale-R</td>
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<td>Digit Symbol</td>
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<td>Wechsler Adult Intelligence Scale- III</td>
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<tr>
<td>Letter-Number Sequencing</td>
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<td>Wechsler Memory Scale</td>
<td></td>
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<td>Associate Learning</td>
<td>PSY010, PSY011</td>
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<tr>
<td>Mental Control</td>
<td>PSY003</td>
</tr>
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</table>

**Adult Children Study (ACS) Psychometric Battery (alphabetical order)**
(This battery is used for participants who begin the ACS study before age 65; participants who begin at 65 years or older receive the standard Knight ADRC psychometric battery)

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditory Consonant Trigrams</td>
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</tr>
<tr>
<td>Benson Complex Figure Copy</td>
<td>UDSBENTC</td>
</tr>
<tr>
<td>Color Only Stroop</td>
<td>stroopcolor</td>
</tr>
<tr>
<td>Category Fluency (Animals)</td>
<td>ANIMALS</td>
</tr>
<tr>
<td>Free and Cued Selective Reminding Test</td>
<td>SRTfree</td>
</tr>
<tr>
<td>Test Description</td>
<td>Code</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
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</tr>
<tr>
<td>Handedness</td>
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</tr>
<tr>
<td>Simon Task</td>
<td>simonnumber</td>
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<tr>
<td>Switching Task (CVOE)</td>
<td>switchmixed</td>
</tr>
<tr>
<td>Stroop Switch</td>
<td>stroopswitch</td>
</tr>
<tr>
<td>Tapping Task</td>
<td>tapping</td>
</tr>
<tr>
<td>Trailmaking A and B</td>
<td>TMA, TRAILB</td>
</tr>
<tr>
<td>Wechsler Adult Intelligence Scale-R</td>
<td></td>
</tr>
<tr>
<td>Digit Symbol</td>
<td>DIGSYM</td>
</tr>
<tr>
<td>Wechsler Adult Intelligence Scale-III</td>
<td></td>
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<tr>
<td>Block Design</td>
<td>block</td>
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<tr>
<td>Information</td>
<td>inform</td>
</tr>
<tr>
<td>Similarities</td>
<td>SIM</td>
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<tr>
<td>Wechsler Memory Scale-III</td>
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<tr>
<td>Letter-Number Sequencing</td>
<td>lettnum</td>
</tr>
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<td>Logical Memory I (Immediate)</td>
<td>logmem</td>
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<tr>
<td>and II (Delayed)</td>
<td>lmdelay</td>
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<tr>
<td>Verbal Paired Associates</td>
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<tr>
<td>Woodcock-Johnson Spatial Relations</td>
<td>spatial</td>
</tr>
</tbody>
</table>

**Tests No Longer Used**

- American Version of Nelson Adult Reading Test (AMNART)
- Bender Gestalt
- Benton Line Orientation
- Benton Visual Form Discrimination
- Benton Visual Retention Test – Forms C and D
- Boston Naming Test
- Bradburn Affect Scale
- Crossing-Off
- Double Memory Test: Category Cued Recall
- Dual Task
- Entertainment Questionnaire
- Halstead-Reitan
  - Astereognosis
  - Tactile/Sensory
- Line Bisection Test
- Luria-Nebraska Neuropsychological Battery
  - Motor
  - Rhythm
- Positive and Negative Affect Schedule (PANAS)
- Reaction Time
- Reading Span
- Sentence Formulation
- Sentence Generation
Stroop
Syntax in Written Sentences
Token Test
Visual Neglect
Wechsler Adult Intelligence Scale
  Comprehension
  Picture Arrangement
Weschsler Adult Intelligence Scale –R
  Digit Symbol, UDS enlarged version
  Wechsler Adult Intelligence Scale III
Similarities
Wechsler Memory Scale
  Digit Span
  Information
  Logical Memory
  Orientation
  (Sentence Recall
Wechsler Memory Scale-R
  Digit Span
  Logical Memory Story A Immediate and Delayed
  Logical Memory Story A – Verbatim

Word Fluency
Wisconsin Card Sorting Test
Zung Depression Scale
Each entry in the SAS data set has a brief variable name as shown at the left margin followed by the descriptive, shorthand label used in the SAS data set. For example, Trailmaking A is:

TRAILA  The number of seconds spent in connecting 25 numbered circles in sequential order.

That is, its variable name is TRAILA, and its shorthand label is Trailmaking A.

Following each variable name and label is the date the test was first included. Tests no longer given are listed in the Tests No Longer Used section. Some tests have been modified; the date such modifications occurred, as well as a description of what was done, are indicated. References for standard tests are included. The range of scores on the variable is specified and the direction of quantitative scales is indicated (e.g., high score = good).

The order of administration of the tests in the battery has changed over time. See files for time period of interest.
MISSING DATA CODE

There are a variety of reasons why participants cannot always complete testing. The following codes are used to indicate what happened.

I  INJURY/ILLNESS refers to missing data due to broken finger, amputated digit, or an illness like polyneuropathy, arthritis, stroke, Parkinson's disease, deafness, or severe loss of vision. This code is related to motor tasks such as writing or other movements. This should not be confused with the next code, C.

C  COULDN'T DO because of memory loss or cognitive confusion. The tester has to attempt to administer the task to use this code.

M  MISSING is coded when the tester chose not to give a measure because the participant was uncooperative, agitated, hostile, had already demonstrated severe language disturbance, or the test battery was terminated prior to completion because of time constraints.

R  REFUSED is the code used when the tester tried to administer the task but the participant refused to do it, (e.g., "I don't want to do that").

.  Originally a DOT was used to indicate missing data for any reason. Therefore, data from earlier times of testing will have this generic code.

T  TREMOR is observed by the tester as the reason measures are not completed, specifically in the case of individuals in the Parkinson’s disease sample but may be used with any tremor.

CODE FOR COMPUTERIZED TESTS

D  No computerized test due to technical difficulties.

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## IDENTIFICATION INFORMATION

<table>
<thead>
<tr>
<th>ID</th>
<th>Case identification number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY_DATE</td>
<td>Date of psychometric assessment.</td>
</tr>
<tr>
<td>TESTER</td>
<td>Identification of tester. Coded by number.</td>
</tr>
<tr>
<td>PLACE</td>
<td>Where tested</td>
</tr>
<tr>
<td>1 = MAP office</td>
<td></td>
</tr>
<tr>
<td>2 = home</td>
<td></td>
</tr>
<tr>
<td>3 = nursing home</td>
<td></td>
</tr>
<tr>
<td>4 = hospital</td>
<td></td>
</tr>
<tr>
<td>5 = daycare</td>
<td></td>
</tr>
</tbody>
</table>

## ADDITIONAL AVAILABLE INFORMATION

<table>
<thead>
<tr>
<th>BIRTH</th>
<th>Date of birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC</td>
<td>Years of education</td>
</tr>
<tr>
<td>GENDER</td>
<td>Sex of participant 1 = man 2 = woman</td>
</tr>
<tr>
<td>SES</td>
<td>Socioeconomic status (Hollingshead index)</td>
</tr>
<tr>
<td>TESTDATE</td>
<td>Date of clinical assessment</td>
</tr>
<tr>
<td>CDR</td>
<td>Clinical Dementia Rating from clinical assessment by physician (name)</td>
</tr>
<tr>
<td>0 = not demented</td>
<td></td>
</tr>
<tr>
<td>0.5 = uncertain or very mild dementia</td>
<td></td>
</tr>
<tr>
<td>1 = mild dementia</td>
<td></td>
</tr>
<tr>
<td>2 = moderate dementia</td>
<td></td>
</tr>
<tr>
<td>3 = severe dementia</td>
<td></td>
</tr>
</tbody>
</table>

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BENSON COMPLEX FIGURE

Date added: 3/16/2015


In this task, the participant is presented with a figure composed of geometric shapes and asked to reproduce the figure on the same page. The purpose of this test is to assess the participant’s visuoconstructional and visual memory functions. The accuracy of each shape and its placement is recorded. Scored according to NACC UDS 3 scoring rules.

BENSON FIGURE COPY

UDSBENTC  Total score for copying the Benson figure

Range: 0-17                   High Score = good

BENSON FIGURE RECALL

UDSBENTD  Total score for drawing the Benson figure from memory following delay

Range: 0-17                   High Score = good

UDSBENRS  Recognition of original stimulus among four options

Range: 0-1                   High Score = good

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CATEGORY FLUENCY - ANIMALS AND VEGETABLES

Date added: 9/1/05  Link to previous version used 3/17/97 to 9/1/05
ANIMALS Participants name as many different animals as they can for a minute.

Range: 0 and above  High score = good

VEG Participants name as many different vegetables as they can for a minute.

Range: 0 and above  High score = good

COLOR ONLY STROOP

Date added: 9/1/2014


The participant sees a word printed in one of these 4 different colors (red, blue, yellow, green) and is directed to say the color in which the word is typed. A microphone is used to capture response time. The examiner hits the labeled key that reflects the participant’s response, or hits the key labeled mic, for a mic error. A microphone error occurs when the participant’s initial response is not picked up by the mic, or when participant triggers the mic by some accidental means (a cough, touching microphone, etc.) that would render the response time for that item irrelevant. For any response in which the participant self-corrects the original response is keyed in to reflect the response that corresponds with the reaction time. A practice trial consists of 16 items. The actual task consists of 104 trials. Practice trials are not included in the scoring.

stroopcolor Number of correct responses out of 104 trials

Range: 0 – 104  High score = good

CRAFT STORY 21

Date added: 3/16/2015


A brief story is read to the participant, who is then asked to retell it from memory immediately. The primary measure of performance is the number of story units recalled both immediately after story is presented and after a delay.

**CRAFT STORY RECALL (Immediate)**

- **CRAFTVRS** Total Story units recalled immediately after story presented, verbatim scoring
  - Range: 0-44
  - High Score = good
- **CRAFTURS** Total story units recalled immediately after story presented, paraphrase scoring
  - Range: 0-25
  - High Score = good

**CRAFT STORY 21 RECALL (Delayed)**

- **CRAFTDVR** Total story units recalled after delay, verbatim scoring
  - Range: 0-44
  - High Score = good
- **CRAFTDRE** Total story units recalled after delay, paraphrase scoring
  - Range: 0-25
  - High Score = good
- **CRAFTDTI** Delayed time
  - Range: Unknown
  - High Score = NA
- **CRAFTCUE** Cue (boy) needed
  - Range: 0-1
  - High Score = NA

**FREE AND CUED SELECTIVE REMINDING TEST**

Date added: 8/1/02


During learning the participant is required to provide the name of a pictured item (e.g., grapes) when given the category cue (e.g., fruit). This 16-item list learning test includes immediate category-cued recall (four items at a time) to confirm initial
correct encoding and provide retrieval practice before the test phase. For scoring purposes there are three recall trials, each trial preceded by 20 seconds of interference by counting backwards from 97 by 3s. On each recall the participant is allowed up to 90 seconds to recall items. Then the participant is given the category cue for items that were not recalled. If the item is not retrieved in 10 seconds, the examiner tells the participant what it is. The scores are the number of items recalled on each of 3 trials under free and then cued recall.

Range for each trial: 0-16   High score = good

SRT1F  Free & Cued SRT: Trial 1 Free Recall
SRT1C  Free & Cued SRT: Trial 1 Cued Recall
SRT2F  Free & Cued SRT: Trial 2 Free Recall
SRT2C  Free & Cued SRT: Trial 2 Cued Recall
SRT3F  Free & Cued SRT: Trial 3 Free Recall
SRT3C  Free & Cued SRT: Trial 3 Cued Recall

There are two summary scores:

SRTfree  SRT1F + SRT2F + SRT3F
Range: 0 - 48   High score = good

SRT total  SRTfree + SRT1C + SRT2C + SRT3C
Range: 0 - 48   High score = good

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**HANDEDNESS: Administered only at entry into study.**

Date added: 2/22/84   Modified: 11/4/88


The participant is asked to demonstrate 8 actions using objects (e.g., comb one's hair). The objects are placed in the center of the table prior to the request. The hand used to demonstrate the action is noted. When the object has 2 parts (e.g., the box with a lid, the hand used to demonstrate the action is still noted. In this case, the hand used to take off the lid) The normal rule for determining handedness is 6 out of 8 actions. Testers also make a note when most or all of the actions on the handedness task are performed with a different hand used for writing during the testing session.

**PSY232**  HANDEDNESS LEFT
Score is number of actions using left hand.
Range: 0 - 8 High score = left handed

PSY233  HANDEDNESS BOTH
Score is number of actions using both hands. This is very rare.
Range: 0 - 8 High score = handedness unresolved

PSY234  HANDEDNESS NO RESPONSE
Score is number of requests that yielded no response.
Range: 0 - 8 High score = unresponsive

PSY113  HANDEDNESS: RIGHT
Score is number of actions using right hand
Range: 0 - 8 High score = right handed

PSY114  GESTURAL IRREGULARITIES
Score is number of inappropriate responses (e.g., using a pencil to comb hair)
Range: 0 - 8 High score = poor

MULTILINGUAL NAMING TEST (MINT)

Date added: 3/16/2015


The participant is presented with 30 objects and asked to name the object that appears in front of them. This test measures the ability of the participant to orally label (name) objects. This test measures aphasia and object naming deficits.

MINTTOTS Total score of correctly named items
Range: 0-32 High Score = good

MINTTOTW Total correct without semantic cue
NUMBER SPAN TEST: FORWARD

Date added: 3/16/2015

References: Reproduced by permission of the author, Joel Kramer, PsyD; do not copy or distribute without author’s permission. Form created as part of the Uniform Data Set of the National Alzheimer’s Coordinating Center, copyright © 2013 University of Washington.

The participant is read number sequences of increasing length and asked to repeat them. The longest span forward length is the length of the highest digit sequence the participant is able to repeat correctly. This is a widely used test of working memory (or attention).

DIGFORCT Number of correct trials
Range: 0-14 High Score = good

DIGFORSLL Longest span forward
Range: 3-9 High Score = good

NUMBER SPAN TEST: BACKWARDS

Date added: 3/16/2015
The participant is read number sequences at increasing length and then asked to repeat each sequence backwards. The primary measure of performance is the number of trials correctly reversed. The longest span backward length is the length of the highest digit sequence the participant is able to reverse. This is a widely used measure of working memory (attention).

DIGBACCT  Number of correct trials

Range: 0-14 High Score = good

DIGBACLS Longest span backward

Range: 2-8 High Score = good

SLOSSON ORAL READING TEST-REVISED (SORT-R): Administered only at entry into study.

Date Added: 12/9/98


Scoring is from the SORT-R manual.

SLOSSON SORT-R Raw Score

Range: 0 - 200 High score = good

SWITCHING TASK (CVOE)

Date Added: 4/1/09

Participants see letter-digit pairs (e.g., N14) in the center of the screen. In the first block of 50 trials (10 practice, 40 test) they press the P key if the letter is a vowel and the Q key if it is a consonant. For the next 50 trials (10 practice, 40 test) they press the P key if the digit is even and the Q key if it is odd. In the final block of 62 mixed trials (10 practice, 52 test) the instructions (consonant and vowel or odd and even) that are shown in the lower right and lower left corners of the screen change every two trials. Thus, the participant makes consonant vowel decisions for two trials and then the odd even decisions and so forth. Practice trials are not included in the scoring.

switchCV Number of correct responses on consonant/vowel choice block out of 40 trials
Range: 0-40 High score = good

switchOE Number of correct responses on even/odd choice block out of 40 trials
Range: 0-40 High score = good

switchmixed Number of correct responses on mixed consonant/vowel and even/odd block out of 52 trials
Range: 0-52 High score = good

switch Percentage correct responses out of total 132 trials.
Range = 0 to 100 High score = good

STROOP SWITCH

Date added: 9/1/2014


The participant again sees a word (red, blue, yellow or green) printed in one of these 4 different colors. A prompt for either WORD or COLOR appears on the screen before each trial. If the prompt reads WORD, the participant reads the word. If the prompt reads COLOR, the participant says the color in which the word is written. A microphone is used to capture response time and examiner records on a paper answer sheet whether the response was correct, incorrect, self-corrected or a microphone error occurred. There are two practice trials containing 40 trials total, and the actual task consists of 88 items. Practice trials are not included in the scoring.

stroopswitch  Number of correct responses  out of 88 trials

Range 0 to 88               High score = good

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TAPPING TASK

Date added: 9/1/2014


The participant hears a set of tones that create a regular beat and is directed to tap the spacebar in time with the beat. After practicing tapping in time with the tones, the participant is told that the tones will discontinue after several repetitions but that they should continue to tap on the spacebar in the same rhythm until STOP appears on the screen. There are two practice trials before the actual test consisting of 24 trials total with a rhythm of 1250ms. During the actual test, the tones are sounded at a rhythm of 1500 ms. and 109 trials are required. Practice trials are not included in the scoring.

tapping  Median response time out of 109 trials

Range: Undefined               High Score = NA

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TRAILMAKING A AND B

Date added: 9/1/05  Link to previous versions used


**TRAILA**  The score is the number of seconds spent in connecting 25 numbered circles in sequential order. UDS variable reported maximum is 150 seconds.

Range: 0 - 150  High score = poor

**TRAILA_C**  TRAILMAKING FORM A NUMBER OF DIGITS CONNECTED  
Date added: 3/24/94

The score is the number of digits in circles (1-25) connected in sequential order within 180 seconds.

Range: 0 – 24  High score = good

**TRAILARR**  Number of commission errors  
Date added: 2/25/2008

The score is the number of errors of commission made while connecting 25 numbered circles in sequential order within the 150 second time limit.

Range: 0 – 40  High score = poor

**TRAILALI**  Number of correct lines  
Date added: 2/25/2008

The score is the number of lines correctly connected to 25 numbered circles in sequential order within the 150 second time limit.

Range: 0 – 24  High score = good

**TRAILB**  The score is the number of seconds spent connecting numbered circles (1-13) to circles containing letters of the alphabet (A-L) in alternating sequential order. A maximum of 300 seconds is allowed.

Range: 0 - 300  High score = poor

**TRAILB_C**  TRAILMAKING FORM B NUMBER DIGITS AND LETTERS CONNECTED  
Date added: 3/24/94

The score is the number of digits (1-13) connected to letters (A-L) in alternating sequential order within 180 seconds.

Range: 0 - 24  High score = good

**TRAILBRR**  Number of commission errors
Date added: 2/25/2008

The score is the number of errors of commission made while connecting numbered circles (1-13) to lettered circles (A-L) in alternating sequential order within the 300 second time limit.

Range: 0 – 40          High score = poor

TRAILBLI Number of correct lines

Date added: 2/25/2008

The score is the number of lines correctly connected between numbered circles (1-13) and lettered circles (A-L) in alternating sequential order within the 300 second time limit.

Range: 0 – 24          High score = good

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WECHSLER ADULT INTELLIGENCE SCALE (WAIS)

Date added: 7/79


PSY021 WAIS BLOCK DESIGN

The participant replicates models or pictures of two-color designs with blocks.

Administered and raw scored according to WAIS manual

Range: 0 - 48          High score = good

PSY019 WAIS INFORMATION

The participant answers a series of questions about factual information.

Administered and raw scored according to WAIS manual

Range: 0 - 29          High score = good

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WECHSLER ADULT INTELLIGENCE SCALE (WAIS-R)

Date added: 9/1/05
WAIS-R DIGIT SYMBOL (Standard form)

Date added: 9/1/05 Link to previous WAIS version used
Dropped: 9/1/2014
Date added back: 3/16/2015

DIGSYM Administered and raw scored according to WAIS-R manual.
Range: 0 - 93 High score = good

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WECHSLER MEMORY SCALE (WMS)

Date added: 7/79


ASSOCIATE LEARNING
Scored according to WMS manual.

PSY010 WMS ASSOCIATES RECALL: EASY
Sum of correctly recalled easy pairs over 3 trials.
Range: 0 -18 High score = good

PSY011 WMS ASSOCIATES RECALL: HARD
Sum of correctly recalled hard pairs over 3 trials.
Range: 0 -12 High score = good

asccmem Summary score = (PSY010 divided by 2) + PSY011
Range: 0 - 21 High score = good

MENTAL CONTROL

PSY003 WMS MENTAL CONTROL COUNT BACK FROM 20
Range: 0 - 3 High score = good
Scored according to WMS manual.
PSY072  WMS MENTAL CONTROL ALPHABET
Range: 0 - 3  High score = good
Scored according to WMS manual.

PSY078  WMS MENTAL CONTROL SERIAL COUNTING BY 3
Range: 0 - 3  High Score = good
Scored according to WMS manual.

MENTCONT  Summary score = PSY003 + PSY072 + PSY078
Range: 0 - 9  High score = good

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WECHSLER MEMORY SCALE-III (WMS-III)
Date added: 4/1/09

LETTER-NUMBER SEQUENCING
The participant is read a combination of numbers and letters and is asked to repeat them, saying the numbers first in ascending order and then the letters in alphabetical order. Administered and scored according to the WMS-III manual.

lettnum  WMS-III Letter Number Sequencing
Range: 0 to 21  High Score = good

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VERBAL FLUENCY: PHONEMIC TEST
Date added: 3/16/2015
References: Reproduced by permission of the author, Argye E. Hillis, MD; do not copy or distribute without author’s permission. Form created as part of the FTLD Module to the Uniform Data Set of the National Alzheimer’s Coordinating Center. Copyright © 2013 University of Washington.
In this task, the participant is told a letter of the alphabet (F) and asked to state as many words as possible that begin with that letter within 60 seconds. After 60 seconds, this is repeated with a second letter (L). The primary measure of performance is the total number of correct F-words and L-words.

UDSVERFC  Number of correct F-words produced in 1 minute
Range: 0-40  High Score = good

UDSVERFN  Number of F-words repeated in 1 minute
Range: 0-15  High score = poor

UDSVERNF  Number of non-F-words and rule violation errors in 1 minute
Range: 0-15  High Score = poor

UDSVERLC  Number of correct L-words produced in 1 minute
Range: 0-40  High Score = good

UDSVERLR  Number of correct L-words repeated in 1 minute
Range: 0-15  High Score = poor

UDSVERLN  Number of non-L-words and rule violation errors in 1 minute
Range: 0-15  High Score = poor

UDSVERTN  Total number of F-words and L-words
Range: 0-80  High Score = good

UDSVERTE  Total number of F-word and L-word repetition errors
Range: 0-30  High Score = poor

UDSVERTI  Total number of non-F/L-words and rule violation errors
Range: 0-30  High Score = poor

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Range: 0 and above
ADULT CHILDREN STUDY (ACS) BATTERY
(Tests listed alphabetically)

AUDITORY CONSONANT TRIGRAMS (BROWN-PETERSON)

Date added: 7/14/05

References:


Three consonants are read to the participant followed immediately by a random number. The participant is asked to count out loud backwards from that number by threes for either 9, 18, or 36 seconds determined randomly. The participant then recalls the consonant trigram. The score is the sum of the number of consonants recalled correctly over 20 trials.

trigrams   Auditory Consonant Trigrams

Range: 0 to 60   High score = good

BENSON COMPLEX FIGURE

Date added: 2/13/2017


In this task, the participant is presented with a figure composed of geometric shapes and asked to reproduce the figure on the same page. The purpose of this test is to assess the participant’s visuoconstructional and visual memory functions. The accuracy of each shape and its placement is recorded. Scored according to NACC UDS 3 scoring rules.
BENSON FIGURE COPY

UDSBENTC  Total score for copying the Benson figure

Range: 0-17  
High Score = good

BENSON FIGURE RECALL

UDSBENTD  Total score for drawing the Benson figure from memory following delay

Range: 0-17  
High Score = good

UDSBENRS  Recognition of original stimulus among four options

Range: 0-1  
High Score = good

CATEGORY FLUENCY - ANIMALS

Date added: 7/14/05


animals  Participants name as many different animals as they can for a minute.

Range: 0 and above  
High score = good

COLOR ONLY STROOP

Date added: 9/1/2014


The participant sees a word printed in one of these 4 different colors (red, blue, yellow, green) and is directed to say the color in which the word is typed. A microphone is used to capture response time. The examiner hits the labeled key that reflects the participant’s response, or hits the key labeled mic, for a mic error. A microphone error occurs when the participant’s initial response is not picked up by the mic, or when participant triggers
the mic by some accidental means (a cough, touching microphone, etc.) that would render the response time for that item irrelevant. For any response in which the participant self-corrects the original response is keyed in to reflect the response that corresponds with the reaction time. A practice trial consists of 16 items. The actual task consists of 104 trials. Practice trials are not included in the scoring.

stroopcolor Number of correct responses out of 104 trials
Range: 0 – 104
High score = good

FREE AND CUED SELECTIVE REMINDING TEST

Date added: 7/14/05


During learning the participant is required to provide the name of a pictured item (e.g., grapes) when given the category cue (e.g., fruit). This 16-item list learning test includes immediate category-cued recall (four items at a time) to confirm initial correct encoding and provide retrieval practice before the test phase. For scoring purposes there are three recall trials, each trial preceded by 20 seconds of interference by counting backwards from 97 by 3s. On each recall the participant is allowed up to 90 seconds to recall items. Then the participant is given the category cue for items that were not recalled. If the item is not retrieved in 10 seconds, the examiner tells the participant what it is. The scores are the number of items recalled on each of 3 trials under free and then cued recall. For each of these six scores, the range is 0-16.

Range: 0-16
High score = good

Range for each trial: 0-16
High score = good

SRT1F  Free & Cued SRT: Trial 1 Free Recall
SRT1C  Free & Cued SRT: Trial 1 Cued Recall
SRT2F  Free & Cued SRT: Trial 2 Free Recall
SRT2C  Free & Cued SRT: Trial 2 Cued Recall
SRT3F  Free & Cued SRT: Trial 3 Free Recall
SRT3C  Free & Cued SRT: Trial 3 Cued Recall
There are two summary scores:

SRTfree = SRT1F + SRT2F + SRT3F

Range: 0 - 48  High score = good

SRT total = SRTfree + SRT1C + SRT2C + SRT3C

Range: 0 - 48  High score = good

HANDEDNESS: Administered only at entry into study

Date added: 7/14/05


The participant is asked to demonstrate 8 actions using objects (e.g., comb one's hair). The objects are placed in the center of the table prior to the request. The hand used to demonstrate the action is noted. When the object has 2 parts (e.g., the box with a lid), the hand used to demonstrate the action is still noted; (in this case, the hand used to take off the lid). The normal rule for determining handedness is 6 out of 8 actions.

Testers also make a note when most or all of the actions on the handedness tasks are performed with the opposite hand that was used for writing during the testing session.

PSY232  HANDEDNESS LEFT

Score is number of actions using left hand.
Range: 0 - 8  High score = left handed

PSY233  HANDEDNESS BOTH

Score is number of actions using both hands. This is very rare.
Range: 0 - 8  High score = handedness unresolved

PSY234  HANDEDNESS NO RESPONSE

Score is number of requests that yielded no response.
Range: 0 - 8  High score = unresponsive

PSY113  HANDEDNESS: RIGHT

Score is number of actions using right hand
PSY114  GESTURAL IRREGULARITIES
Score is number of inappropriate responses (e.g., using a pencil to comb hair)
Range: 0 - 8  High score = poor

SIMON TASK
Date added: 4/1/09


The participant sees a large arrow pointing to the right (60 trials) or left (60 trials) on the computer and presses the P key when the arrow points right and the Q key when it points left. One third of the trials represent the neutral condition; the arrows (half pointing right, half point right) are shown in the middle of the screen. One third of the trials represent the congruent condition; arrows pointing right are shown on the right side of the screen and arrows pointing left are shown on the left side of the screen. The remaining third of the trials reflect a mismatch between the direction of the arrow and the position on the screen; arrows pointing right are on the left side and arrows pointing left are on the right side.

**SIMON** Percentage correct responses on all 120 trials
Range: 0 to 100  High score = good

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SWITCHING TASK (CVOE)
Date Added: 4/1/09

Participants see letter-digit pairs (e.g., N14) in the center of the screen. In the first block of 50 trials (10 practice, 40 test) they press the P key if the letter is a vowel and the Q key if it is a consonant. For the next 50 trials (10 practice, 40 test) they press the P key if the digit is even and the Q key if it is odd. In the final block of 62 mixed trials (10 practice, 52 test) the instructions (consonant and vowel or odd and even) that are shown in the lower right and lower left corners of the screen change every two trials. Thus, the participant makes consonant vowel decisions for two trials and then the odd even decisions and so forth. Practice trials are not included in the scoring.

switchCV Number of correct responses on consonant/vowel choice block out of 40 trials

Range: 0-40 High score = good

switchOE Number of correct responses on even/odd choice block out of 40 trials

Range: 0-40 High score = good

switchmixed Number of correct responses on mixed consonant/vowel and even/odd block out of 52 trials

Range: 0-52 High score = good

switch Percentage correct responses out of total 132 trials.

Range = 0 to 100 High score = good

STROOP SWITCH

Date added: 9/1/2014


The participant again sees a word (red, blue, yellow or green) printed in one of these 4 different colors. A prompt for either WORD or COLOR appears on the screen before each trial. If the prompt reads WORD, the participant reads the word. If the prompt reads COLOR, the participant says the color in which the word is written. A microphone is used to capture response time and examiner records on a paper answer sheet whether the response was correct, incorrect, self-corrected or a microphone error occurred. There are two practice trials containing 40 trials total, and the actual task consists of 88 items. Practice trials are not included in the scoring.

**stroopswitch**  Number of correct responses out of 88 trials

<table>
<thead>
<tr>
<th>Range</th>
<th>High score = good</th>
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</thead>
<tbody>
<tr>
<td>0 to 88</td>
<td></td>
</tr>
</tbody>
</table>

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**TAPPING TASK**

Date added: 9/1/2014


The participant hears a set of tones that create a regular beat and is directed to tap the spacebar in time with the beat. After practicing tapping in time with the tones, the participant is told that the tones will discontinue after several repetitions but that they should continue to tap on the spacebar in the same rhythm until STOP appears on the screen. There are two practice trials before the actual test consisting of 24 trials total with a rhythm of 1250ms. During the actual test, the tones are sounded at a rhythm of 1500 ms and 109 trials are required. Practice trials are not included in the scoring.

**tapping**  Median response time out of 109 trials

<table>
<thead>
<tr>
<th>Range: Undefined</th>
<th>High Score = NA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>
TRAILMAKING A and B

Date added: 7/14/05

TMA The score is the number of seconds spent in connecting 25 numbered circles in sequential order. A maximum of 180 seconds is allowed.

Range: 0 - 180 High score = poor

TrailA_C The score is the number of digits in circles (1-25) connected in sequential order within 180 seconds.

Range: 0 – 24 High score = good

TRAILB The score is the number of seconds spent in connecting numbered circles (1-13) to lettered circles (A-L) in alternating sequential order. A maximum of 300 seconds is allowed; data are also gathered at 180 seconds

Range: 0 - 300 High score = poor

TrailB_C The score is the number of digits (1-13) connected to letters (A-L) in alternating sequential order within 180 seconds.

Range: 0 – 24 High score = good

TRAILBLI The score is the number of lines correctly connected between numbered circles (1-13) and lettered circles (A-L) in alternating sequential order within the 300 second time limit.

Date added: 1/1/2009

Range: 0 – 24 High score = good

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WECHSLER ADULT INTELLIGENCE SCALE - III (WAIS-III)


BLOCK DESIGN

Date added: 7/14/05
The participant replicates models or pictures of two-color designs with blocks. Administered and raw scored according to the WAIS-III manual.

**block**  WAIS-III Block Design

Range: 0 to 68  High score = good

**INFORMATION**

Date added: 7/14/05

The participant answers a series of questions about factual information. Administered and raw scored according to WAIS-III manual.

**inform**  WAIS-III Information

Range: 0 to 28  High score = good

**SIMILARITIES**

Date added: 7/14/05

The participant is asked how two objects or concepts are alike. Score reflects abstract reasoning abilities. Raw scored according to WAIS-III manual.

**SIM**  WAIS-III Similarities

Range: 0-33  High Score = good

**WECHSLER MEMORY SCALE-III (WMS-III)**

Date added: 7/14/05


**LETTER-NUMBER SEQUENCING**
The participant is read a combination of numbers and letters and is asked to repeat them, saying the numbers first in ascending order and then the letters in alphabetical order. Administered and scored according to the WMS-III manual.

**lettnum**  WMS-III Letter Number Sequencing

Range: 0 to 21  High Score = good

**LOGICAL MEMORY I - IMMEDIATE RECALL**

The participant is read two short stories and is asked to recall them. Administered and scored according to WMS-III manual with the exception that Story B is only given once.

**logmem**  WMS-III Logical Memory Immediate

Range: 0 to 50  High Score = good

**LOGICAL MEMORY II - DELAYED RECALL**

Delayed recall trial administered and scored (recall total score) according to WMS-III manual.

**lmdelay**  WMS-III Logical Memory Delayed

Range: 0 to 50  High score = good

**VERBAL PAIRED ASSOCIATES**

The participant learns eight paired associates of low association over 4 trials. Administered and scored according to WMS-III manual.

**pairs**  WMS-III Verbal Paired Associates I

Range: 0 to 32  High score = good

**WOODCOCK-JOHNSON SPATIAL RELATIONS**

Date added: 7/14/05
Participant looks at a series of “whole” shapes with interior lines dividing the shape into regular and irregular pieces. Next to the whole shape is a group of six shape pieces, labeled with letters of the alphabet. The participant indicates which of the shape pieces would be needed to make up the “whole” shape. The 33 test items are presented in order of ascending difficulty and require two or three responses. The score is the number of correctly identified pieces.

spatial Spatial Relations

Range: 0 - 81 High score = good
TESTS NO LONGER USED

AMERICAN VERSION OF NELSON ADULT READING TEST (AMNART)

Date added: 3/15/93  Date dropped: 1/2/04


Beginning 9/12/94 the test items were reduced from 50 to 45. The tests prior to that time were rescored retrospectively so that the items and scores in the database are the same.

PSY254 Range: 0 - 45  High score = good

BENDER GESTALT

Date added: 7/79  Date dropped: 12/30/89


PSY037 BENDER GESTALT Total error score.

Score is the total of PSY118+...PSY129. Each of these variables is scored 1 if the participant made that type of error or 0 if not. Scoring is according to a modified Hutt-Briskin system (Lacks, 1984).

PSY118 ROTATION Range: 0 - 1  High score = poor

PSY119 OVERLAPPING DIFFICULTY Range: 0 - 1  High score = poor

PSY120 SIMPLIFICATION Range: 0 - 1  High score = poor

PSY121 FRAGMENTATION Range: 0 - 1  High score = poor
PSY122  RETROGRESSION  
Range:  0 - 1  
High score = poor

PSY123  PERSEVERATION  
Range:  0 - 1  
High score = poor

PSY124  COLLISION  
Range:  0 - 1  
High score = poor

PSY125  IMPOTENCE  
Range:  0 - 1  
High score = poor

PSY126  CLOSURE DIFFICULTY  
Range:  0 - 1  
High score = poor

PSY127  MOTOR INCOORDINATION  
Range:  0 - 1  
High score = poor

PSY128  ANGULATION DIFFICULTY  
Range:  0 - 1  
High score = poor

PSY129  COHESION  
Range:  0 - 1  
High score = poor

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BENTON JUDGMENT OF LINE ORIENTATION FORM V

Date added:  7/14/05 (ACS Battery)  Date dropped:  2/13/2017


Participant judges which two lines drawn at different angles on a response card correspond to the placement of two lines drawn at different angles on a stimulus card.

<table>
<thead>
<tr>
<th>line</th>
<th>Line Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range: 0 to 30</td>
</tr>
<tr>
<td></td>
<td>High score = good</td>
</tr>
</tbody>
</table>

BENTON VISUAL FORM DISCRIMINATION

Date added:  4/27/88  Date dropped:  10/28/92

PSY247 VISUAL FORM DISCRIMINATION # CORRECT  
Range: 0 - 16  
High score = good

PSY248 VISUAL FORM DISCRIMINATION PERIPHERAL ERROR  
Range: 0 - 16  
High score = poor

PSY249 VISUAL FORM DISCRIMINATION MAJOR ROTATION  
Range: 0 - 16  
High score = poor

PSY250 VISUAL FORM DISCRIMINATION MAJOR DISTORTION  
Range: 0 - 16  
High score = poor

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**BENTON VISUAL RETENTION TEST – Form C**

Date added: 7/79  
Date dropped: 4/1/09


PSY023 BENTON FORM C DELAY # CORRECT  
Form C of the Benton Visual Retention Test administered with a 10-second viewing time. Score is number correct.  
Range: 0 - 10  
High score = good

PSY090 BENTON FORM C ERRORS: OMISSIONS  
Score is number of omission errors  
Range: 0 - 26  
High score = poor

PSY091 BENTON FORM C ERRORS: DISTORTIONS  
Score is number of distortion errors  
Range: 0 - 26  
High score = poor

PSY092 BENTON FORM C ERRORS: PERSEVERATIONS  
Score is number of perseveration errors  
Range: 0 - 25  
High score = poor

PSY093 BENTON FORM C ERRORS: ROTATIONS  
Score is number of rotation errors  
Range: 0 - 26  
High score = poor

PSY094 BENTON FORM C ERRORS: MISPLACEMENTS
Score is number of misplacement errors
Range: 0 - 23
High score = poor

PSY095  BENTON FORM C ERRORS: SIZE

Score is number of size errors
Range: 0 - 16
High score = poor

Summary score (errors): PSY090 + ... + PSY095
Range: 0 - 65
High score = poor

PSY235  BENTON FORM C ERRORS RIGHT

Score is number of errors on right side of figure
Range: 0 - 26
High score = poor

PSY236  BENTON FORM C ERRORS LEFT

Score is number of errors on left side of figure
Range: 0 - 26
High score = poor

PSY025  BENTON FORM D COPY # CORRECT

Form D of the Benton Visual Retention Test is administered with no delay; stimulus present when copied. Score is number correct.

Range: 0 - 10
High score = good

PSY096  BENTON FORM D ERRORS: OMISSIONS

Score is number of omission errors
Range: 0 - 26
High score = poor

PSY097  BENTON FORM D ERRORS: DISTORTIONS

Score is number of distortion errors
Range: 0 - 26
High score = poor

PSY098  BENTON FORM D ERRORS: PERSEVERATIONS

BENTON VISUAL RETENTION TEST – Form D

Date added: 7/79  Date dropped: 1/2/04

Score is number of distortion errors  
Range:  0 - 25  
High score = poor

**PSY099  BENTON FORM D ERRORS: ROTATIONS**  
Score is number of rotation errors  
Range:  0 - 26  
High score = poor

**PSY100  BENTON FORM D ERRORS: MISPLACEMENTS**  
Score is number of rotation errors  
Range:  0 - 23  
High score = poor

**PSY101  BENTON FORM D ERRORS: SIZE**  
Score is number of rotation errors  
Range:  0 - 16  
High score = poor

**Summary score (errors) = PSY096 + ... + PSY101**  
Range:  0 - 65  
High score = poor

**PSY237  BENTON FORM D ERRORS RIGHT**  
Score is number of errors on right  
Range:  0 - 26  
High score = poor

**PSY238  BENTON FORM D ERRORS LEFT**  
Score is number of errors on left  
Range:  0 - 26  
High score = poor

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**BOSTON NAMING TEST (85 item version)**

Date added:  7/79  
Date dropped:  9/1/84

All tests were rescored to conform to revised 60-item version; rescored data available in PSY027.


According to the 1976 experimental scoring booklet, administration was begun with item 39.  If any of the next 8 items are failed, proceed backward from item failed until a total of 8 consecutive preceding items are passed.  Then resume in a forward direction until 6 consecutive errors; stop.

**PSY27  BOSTON NAMING TEST 85 ITEMS**

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PSY27 is the correct variable name, not to be confused with PSY027; it is not a typographical error.

Score is number correct
Range: 0 - 85            High score = good

PSY028    BOSTON NAMING TEST: # CORRECT WITHOUT CUE AT T1
Range: 0 - 85            High score = good

PSY029    BOSTON NAMING TEST: # CORRECT WITH CUE AT T1
Range: 0 - 85
High score could be either good or poor, depending on number correct without cue.

PSY030    BOSTON NAMING TEST: # TOTAL CORRECT AT T1
Range: 0 - 85            High score = good

PSY031    BOSTON NAMING TEST: LAST CORRECT RESPONSE AT T1
Range: 0 - 85            High score = good

BOSTON NAMING TEST (60 item version)

Date added: 4/1/84 (but see PSY27, Boston Naming Test, 85-item version. Data from rescored tests from 7/79 to 4/1/84 included here.)
Date dropped: 9/1/05


PSY027    BOSTON NAMING TEST (60 item version)
Administration altered to begin with the first item (effective 4/1/84 to 8/1/04). Effective August 1, 2004, administration changed back to standard procedure (i.e., begin with item 30). No cues are given. The score is the number named correctly; beginning 8/1/04 credit is given for earlier items not administered. Maximum viewing time for each item is 20 seconds.
Range: 0 - 60            High score = good

PSY027 recoded as BNT as of 9/1/05

PSY105    BOSTON NAMING TEST NUMBER CORRECT PRINTED CUE
Date added: 5/84          Date dropped: 11/20/91

Reference: Devised for this project.

If no response is given within 20 seconds, a card containing the stimulus drawing with four printed words arranged horizontally below it is presented. One printed word is the name of the stimulus item. The three other words are matched for frequency and number of syllables. The three incorrect words are not semantically related to the stimulus. The score is the number of items correctly named after presentation of printed cue.

Range: 0 - 60          High score = good or poor, depends on score on PSY027

PSY109    BOSTON NAMING TEST NUMBER CORRECT OBJECT CUE

Date added: 2/22/84          Date dropped: 9/18/86

Reference: Devised for this project.

If the stimulus is not named after administration of the printed cue, the real object or a miniature is presented.

Range: 0 - 60          High score = good or poor, depends on score in PSY027

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BOSTON NAMING TEST (ODD NUMBERED ITEMS)

Date added: 9/1/05          Date dropped: 2/13/2017


Begin at item 1 and present all 30 (odd numbered) items in order. Allow 20 seconds for each response. If participant gives a response that indicates a misperception of the picture, administer the printed stimulus cue. Allow 20 seconds for response. Total score is the number of items named correctly including those named following
given stimulus cues and then multiplied by 2 so as to be consistent with previous 60-item version.

**BOSTON**

Total correct

Range: 0 - 60  
High score = good

**BRADBURN AFFECT BALANCE SCALE**

Date added: 4/93  
Date dropped: 11/94


BRAD1 - BRAD10  1 = YES, 0 = NO, Response to each question

**BRADP**

Positive affect  
Range 0 - 5  
Score is number of YES answers to items 1, 3, 5, 7, 9

**BRADN**

Negative affect  
Range 0 - 5  
Score is number of YES answers to items 2, 4, 6, 8, 10

**BRADBAL**  
Affect balance - the difference between BRADP and BRADN

**CATEGORY FLUENCY—ANIMAL NAMING**

Date added: 3/17/97  
Date modified to conform to UDS: 9/1/05  
Rescored using only first four 15-second intervals.


Participants are asked to name as many different animals as they can for about a minute. Total score is based on the most productive consecutive 60 seconds. They are actually allowed 90 seconds.

**animal 1**

Number of animal names recorded verbatim in first 15 seconds

**animal 2**

Number of animal names recorded verbatim in 15-30 second interval

**animal 3**

Number of animal names recorded verbatim in 30 - 45 second interval

**animal 4**

Number of animal names recorded verbatim in 45-60 second interval

**animal 5**

Number of animal names recorded verbatim in 60-75 second interval

**animal 6**

Number of animal names recorded verbatim in 75-90 second interval
Animal             Total of animal 1 through animal 4
Range: 0 and above    High score = good

CROSSING OFF

Date added: 7/79       Date dropped: 4/1/09


The score is the number of lines crossed off divided by the number of seconds taken to complete the page. This quotient is then multiplied by 100. A maximum of 180 seconds is allowed.

PSY017L CROSSED OFF # LINES
Range: 0 - 96            High score = good

PSY017S CROSSED OFF # SECONDS
Range: 1 - 180

PSY017 Summary score = (PSY017L divided by PSY017S) x 100
Range: 0 and above    High score = good

WECHSLER ADULT INTELLIGENCE SCALE - REVISED (WAIS-R)

DIGIT SYMBOL (Standard form)

Date added: 9/1/05
Date dropped: 9/1/2014
Date added back: 3/16/2015


DIGSYM Administered and raw scored according to WAIS-R manual.
Range: 0 - 93            High score = good

DOUBLE MEMORY TEST: Category Cued Recall
Date added: 4/7/97       Date dropped: 9/17/98

**BUSCH01 -- BUSCH64**

During the acquisition phase, participant is shown 4 words, each from a different category on a screen. Appropriate category cues are shown one at a time in the center of the screen. There are 16 different categories with a total of 64 screens. Immediately after participant is asked to name the four items from each category in any order.

Range: 0 - 64  
High score = good

This test can be obtained from Dr. Herman Buschke. His email address is: buschke@aeom.yu.edu.

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**DUAL TASK**

Date added: 4/10/02  
Date dropped: 4/17/03  
Reference: Devised for this project

DUAL  
This task measures the effects of divided attention that can be done by very mildly and mildly demented participants as well as healthy older participants. Participants first complete a letter trails task similar to Trailmaking A in which they draw a line through a sequence of letters from A to Z on an 8.5- x 11-inch sheet of paper. The letters are placed so that it is possible to connect the entire 26-letter sequence without crossing any previously drawn line. The length of time it takes to finish this task is noted. Then the participant is asked to count backward by 1s from 100. This continues for the length of time the participant required to mark the alphabet trail. For both these single tasks the participant is instructed to work as quickly and as accurately as possible. Finally, the participant is asked to perform the two tasks simultaneously.

Time and errors are scored according to manual.

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**ENTERTAINMENT QUESTIONNAIRE**

Date added: 7/79  
Date dropped: 6/82


**PSY034** ENTERTAINMENT QUESTIONNAIRE: RECALL T1

Range: 0 - 12  
High score = good

**PSY035** ENTERTAINMENT QUESTIONNAIRE: RECALL &/OR RECOG T1

Range: 0 - 12  
High score = good

**HALSTEAD-REITAN TACTILE/SENSORY**

Date added: 6/82  
Date dropped: 12/1/88


**PSY051** REITAN # ERRORS FINGER AGNOSIA RIGHT

Finger agnosia (PSY051 and PSY052) is Item 17a of the Halstead battery. Score is # of errors.

Range = 0 - 20  
High score = poor

**PSY052** REITAN # ERRORS FINGER AGNOSIA LEFT

Finger agnosia (PSY051 and PSY052) is Item 17a of the Halstead battery. Score is # of errors.

Range = 0 - 20  
High score = poor

**PSY053** REITAN # ERRORS FINGER NUMBER WRITING RIGHT

Finger number writing is Item 25 from the Halstead battery. Score is # of errors.

Range = 0 - 20  
High score = poor

**PSY054** REITAN # ERRORS FINGER NUMBER WRITING LEFT

Finger number writing is Item 25 from the Halstead battery. Score is # of errors.

Range = 0 - 20  
High score = poor

**Summary score** = PSY051 + PSY052 + PSY053 + PSY054

Range: 0 - 80  
High score = poor

**HALSTEAD-REITAN ASTEREOGNOSIS**  
Item 26, Halstead Battery

Date added: 6/82  
Date dropped: 3/15/95
PSY055  REITAN # ERRORS COINS SINGLY RIGHT  
Range = 0 - 3  High score = poor

PSY056  REITAN # ERRORS COINS SINGLY LEFT  
Range = 0 - 3  High score = poor

PSY057  REITAN # ERRORS COINS BOTH RIGHT  
Range = 0 - 3  High score = poor

PSY058  REITAN # ERRORS COINS BOTH LEFT  
Range = 0 - 3  High score = poor

Summary score = PSY055 + PSY056 + PSY057 + PSY058  
Range = 0 - 12  High score = poor

LINE BISECTION TEST

Date added:  12/83          Date dropped:  8/8/86


Details of administration and scoring are provided in the reference. The participant chooses the first hand (right or left) to use.

PSY138  LINE BISECT, R HAND OMISSIONS RT.

PSY139  LINE BISECT, R HAND OMISSIONS LFT.

PSY140  LINE BISECT, R HAND OMISSIONS CTR.

PSY142  LINE BISECT, R HAND RT., NO. LINES RT.

PSY143  LINE BISECT, R HAND RT., % LINES RT.

PSY144  LINE BISECT, R HAND RT., NO. LINES LFT.

PSY145  LINE BISECT, R HAND RT., % LINES LFT.

PSY146  LINE BISECT, R HAND RT., NO. LINE CTR.

PSY149  LINE BISECT, R HAND LFT., NO. LINES RT.

PSY150  LINE BISECT, R HAND LFT., % LINES RT.

PSY151  LINE BISECT, R HAND LFT., NO. LINES LFT.

PSY152  LINE BISECT, R HAND LFT., % LINES LFT.
PSY153  LINE BISECT, R HAND LFT., NO LINES CTR.
PSY156  LINE BISECT, R HAND CTR., NO LINES RT.
PSY157  LINE BISECT, R HAND CTR., % LINES RT.
PSY158  LINE BISECT, R HAND CTR., NO LINES LFT.
PSY159  LINE BISECT, R HAND CTR., % LINES LFT.
PSY160  LINE BISECT, R HAND CTR., NO LINES CTR.
PSY163  LINE BISECT, R HAND TIME
PSY167  LINE BISECT, L HAND OMISSIONS RT.
PSY168  LINE BISECT, L HAND OMISSIONS LFT.
PSY169  LINE BISECT, L HAND OMISSIONS CTR.
PSY171  LINE BISECT, L HAND RT., NO. LINES RT.
PSY172  LINE BISECT, L HAND RT., % LINES RT.
PSY173  LINE BISECT, L HAND RT., NO LINES LFT.
PSY174  LINE BISECT, L HAND RT., % LINES LFT.
PSY175  LINE BISECT, L HAND RT., NO. LINES CTR.
PSY178  LINE BISECT, L HAND LFT., NO LINES RT.
PSY179  LINE BISECT, L HAND LFT., % LINES RT.
PSY180  LINE BISECT, L HAND LFT., NO LINES LFT
PSY181  LINE BISECT, L HAND LFT., % LINES LFT.
PSY182  LINE BISECT, L HAND LFT., NO. LINES CTR.
PSY185  LINE BISECT, L HAND CTR., NO LINES RT.
PSY186  LINE BISECT, L HAND CTR., % LINES RT.
PSY187  LINE BISECT, L HAND CTR., NO. LINES LFT.
PSY188  LINE BISECT, L HAND CTR., % LINES LFT.
PSY189  LINE BISECT, L HAND CTR., NO. LINES CTR.
PSY192  LINE BISECT, L HAND TIME
LURIA-NEBRASKA NEUROPSYCHOLOGICAL BATTERY

Date added: 6/82          Date dropped: 10/31/91


The score is the number of incorrectly executed motor tasks.

**PSY045 LURIA MOTOR: OPPOSITE KNOCKS # ERRORS**

Item 48 on Luria-Nebraska Motor Function scale. The score is the number of incorrectly executed motor tasks.

Range: 0 - 10          High score = poor

**PSY046 LURIA MOTOR: HAND SQUEEZES # ERRORS**

Item 49 on Luria-Nebraska Motor Function scale. The score is the number of incorrectly executed motor tasks.

Range: 0 - 4          High score = poor

**PSY047 LURIA MOTOR: KNOCK 1 LEFT 2 RIGHT # ERRORS**

Item 50 on Luria-Nebraska Motor Function scale. The score is the number of incorrectly executed motor tasks.

Range: 0 - 4          High score = poor

**PSY048 LURIA MOTOR: OPPOSITE INTENSITY # ERRORS**

Item 51 on Luria-Nebraska Motor Function scale. The score is the number of incorrectly executed motor tasks.

Range: 0 - 4          High score = poor

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LURIA-NEBRASKA NEUROPSYCHOLOGICAL BATTERY

(Subtest of the Seashore Tests of Musical Talent;)


**PSY136 LURIA RHYTHM ERRORS PITCH**
Date added: 4/14/83  Date dropped: 8/31/96
Items 52, 53, and 54 from Luria-Nebraska Rhythm. Score is numbers of errors.
Range: 0 - 16  High score = poor

PSY242  HAPPY BIRTHDAY
Date added: 4/19/84  Date dropped: 2/26/92
Item 57, Luria-Nebraska Rhythm
Range: 0 - 1  High score = poor

PSY137  LURIA RHYTHM ERRORS NUMBER
Date added: 4/14/83  Date dropped: 8/31/96
Items 58, 59, and 60, Luria-Nebraska Rhythm. Score is number of errors.
Range: 0 - 10  High score = poor

**POSITIVE AND NEGATIVE AFFECT SCHEDULE (PANAS) First Administration**

Date added: 4/93  Date dropped: 11/94


This 20 item test was given twice. The first administration was the first measure of the psychometric battery and the second administration was at the end of the testing. The data include all 20 items of the first administration and all 20 items of the second administration.

PANAS1 - PANAS20  1 = YES, 0 = NO, Response to each word

**PANASP**  Positive affect at first administration
Range 0 - 10  Score is number of YES answers to items 1, 3, 5, 9, 10, 12, 14, 16, 17, 19

**PANASN**  Negative affect at first administration
Range 0 - 10  Score is number of YES answers to items 2, 4, 6, 7, 8, 11, 13, 15, 18, 20
POSITIVE AND NEGATIVE AFFECT SCHEDULE (PANAS) Second Administration

Date added: 4/93 Date dropped: 11/94


PANAS21 - PANAS40 1 = YES, 0 = NO, Response to each word

PANASPR Positive affect at second administration

Range 0 - 10 Score is number of YES answers in items 21, 23, 25, 29, 30, 32, 34 36, 37, 39

PANASNR Negative affect at second administration

Range 0 - 10 Score is number of YES answers in items 22, 24, 26, 27, 28, 31, 33, 35, 38, 40.

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REACTION TIME TESTS

Date added: 3/1/99 Date dropped: 9/6/01


SIMPLERT SIMPLE REACTION TIME TEST

Median reaction time from four blocks of nine trials each (total = 36) of key press (“X” for left handers, “M” for right handers) with the index finger in response to the appearance of a square in the middle of a laptop computer screen following preparatory intervals (PI) of 1, 2, or 3 seconds indicated by the written phrase ‘Get Ready’ printed in the center of the screen.

Four 1-second, three 2-second, and two 3-second PI trials are randomized within a block (order varies). The inter-trial interval is 500 ms. Each trial is terminated with the key press. Six practice trials with two 1-second, two 2-second, and two 3-second PIs precede the 36 trials. Participant was instructed to keep their index finger on key throughout the entire experiment. If the key was pressed too soon, the phrase “not yet” appeared on the screen and the trial was repeated.

Instructions, provided verbally and appearing on the screen before the start of the test read as follows:
“Please rest your wrists on the keyboard in a way where you avoid pressing any keys beside the one you will be asked to press. You will see the words “Get Ready” on the screen, followed by a square. As soon as the square appears, hit the square button. If you press the button before the square appears, you will see the words “Not Yet” on the screen. If you hit an incorrect button, the word “Wrong” will appear on the screen.”

CHOICERT  CHOICE REACTION TIME TEST (NO DISTRACTION)

This task was similar to the simple reaction time task but there were four blocks of 18 trials each (total trials = 72). On half of the 18 trials in a block, the stimulus is “X” and on the other half the stimulus is “O.” Participant pressed the “X” key (marked with an “X”) if the stimulus was “X” and the “M” key (marked with an “O”) if the stimulus was “O.” Within a block there were four 1-second, three 2-second, and two 1-second PIs for the “X” stimuli and a like number of “O” stimuli. Trials were randomized within a block. There were six practice trials, one for each stimulus (X, O) at each PI (1, 2, or 3 seconds). If the wrong key was pressed the word “Wrong” appeared on the screen.

Instructions: “Please rest your wrists on the keyboard so that you avoid pressing any keys beside the one you will be asked to press. You will see the words, “Get Ready” on the screen followed by an X or an O. If an X appears, hit the X button, and if an O appears, hit the O button. Press the correct key as soon as the X or O appears. If you press the button before the X or O appears, you will see the words, “Not Yet” on the screen. If you hit an incorrect button, the word “Wrong” will appear on the screen.”

INTERFRT  CHOICE REACTION TIME WITH DISTRACTION

Identical to the choice reaction time experiment but done while listening to a tape recording of a weather report.

Instructions are identical to above except they begin with the sentence: “This test is the same as the last test except that you will hear a recording of a weather report during the test.”

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READING SPAN

Date added: 11/16/09  Date dropped: 9/1/2014


Participants must remember the last word of sentences presented on the computer screen while judging if the sentence makes a statement that is true or false. The number of sentences read prior to recall increases from 1 to 7 in blocks of three trials for each span length (i.e., number of sentences read prior to recall). For
example, on each trial in the first block, the participant reads the sentence and judges if it is true or false; the next screen displays question marks and the participant immediately recalls the last word of the sentence. On each trial of the second block, the participant reads the first sentence and judges if it is true or false, then reads the second sentence and judges if it is true or false, is presented with the screen with question marks and then recalls the last word of each of the two preceding sentences. For a trial to be scored as correct the order of the recalled words must be the same as the order in which the sentences were presented. The test is discontinued when the participant fails to get at least two correct trials in a block of three trials. One of two scores can be used: readspan or readtot.

readspan  
Reading span length

The number of sentences in each trial for the last block of trials for which participant had at least two correct trials.

Range: 0 – 7  
High score = good

readtot  
Reading total correct trials

The total number of correct span trials through the block for which participant had at least two correct trials (i.e., block that determined the variable readspan).

Range: 0 – 21  
High score = good

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SENTENCE FORMULATION

Date added: 2/22/84  Date dropped: 8/15/91  
Reference: Devised for this project.

The participant was asked, "Tell me a sentence". After verbally stating a sentence, the participant was asked, "Please write it for me." Beginning 7/29/89 the sentence was tape-recorded; the tapes are available in the MAP office.

PSY201 SENTENCE FORMULATION REQUEST

1 = Yes, a verbal sentence was produced

0 = No, a verbal sentence was not produced

PSY210 WRITTEN: CURSIVE 1 PRINTED 2 ILLEGIBLE 3

1 = sentence written in cursive

2 = sentence printed

3 = sentence written illegibly
PSY253  

**SENTENCE GENERATION**

Date added: 5/6/92  
Date dropped: 7/1/96

Reference: Devised to collect data for replication of earlier analyses of PSY201.

The participant is asked to "Write any complete sentence on this piece of paper."

I = Participant was engaged in the task and produced recognizable words.

"C", "M", "R", "T" are other scores that may apply.

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**STROOP**

Date added: 11/21/96  
Date dropped: 7/24/00


MDNRTC  
MDNRTI  
MDNRTN  
ERRORC  
ERRORI  
ERRORN

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**SYNTAX IN WRITTEN SENTENCES**

Date added: 2/22/84  
Date dropped: 7/1/96

**DEVELOPMENTAL SENTENCE SCORING (DSS)**


DSS was developed to analyze the growth of children's language. Points are assigned to eight categories of grammatical constructions based on the order or emergence of different forms in children's speech. An utterance total (derived by summing together the total points for each category plus 1 point if the utterance is a grammatical sentence) and/or a language sample average can be computed. The categories of personal pronouns and indefinite pronouns are combined into a single pronoun category and the categories of yes/no questions and wh-questions are combined into a single question category.

**FIRST VB**  
**MAIN VERB**
PRONS  PRONOUNS (INDEFINITE AND PERSONAL)
SECONDVB  EMBEDDED AND SUBORDINATE VERBS
NEG  NEGATIVES
CONJ  CONJUNCTIONS
QUESTS  YES/NO & WH-QUESTIONS
SENT1  GRAMMATICAL SENTENCE
TOTAL  SUM OF THE ABOVE
MLU  MEAN LENGTH OF UTTERANCE


Mean length of utterance is widely used in child language literature as a measure of grammatical development. It is computed by totaling the number of words in each response.

MCU  MEAN CLAUSES PER UTTERANCE


Mean clause per utterance was developed as an alternative to MLU to assess the complexity of language samples obtained from older adults. Mean clause per utterance is computed by totaling the number of each main, embedded, and subordinate clause in a sentence.

PROPTOT  COUNT FOR PROPOSITIONS


Propositions are widely used in cognitive psychology to describe the semantic or propositional content of texts. A proposition corresponds to a basic idea. In general, each proposition is a predicate, expressing an action or state, a modification of a predicate such as a qualification, a quantification, or a negation, and connections between predicates, such as conjunction, disjunction, or contrast. The total number of propositions in each sentence is counted.
TOKEN TEST

Date added: 6/82          Date dropped: 1/17/90


PSY130  TOKEN TEST # CORRECT PART 1
Range: 0 - 7     High score = good

PSY131  TOKEN TEST # CORRECT PART 2
Range: 0 - 4     High score = good

PSY132  TOKEN TEST # CORRECT PART 3
Range: 0 - 4     High score = good

PSY133  TOKEN TEST # CORRECT PART 4
Range: 0 - 4     High score = good

PSY134  TOKEN TEST # CORRECT PART 5
Range: 0 - 4     High score = good

PSY135  TOKEN TEST # CORRECT PART 6
Range: 0 - 13     High score = good

Summary score = PSY130 + PSY131 + PSY132 + PSY133 + PSY134 + PSY135
Range: 0 - 36     High score = good

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TRAILMAKING FORM A


PSY018  TRAILMAKING FORM A IN SECONDS  Trailmaking, Part A
Date added: 7/79          Date modified to conform to UDS: 9/1/05

The score is the number of seconds spent in connecting 25 numbered circles in sequential order. A maximum of 180 seconds is allowed.

Range: 0 - 180     High score = poor

PSY018 5 recoded as TMA as of 9/1/05
TMA  TRAILMAKING A: The score is the number of seconds spent in connecting 25 numbered circles in sequential order in 180 seconds. UDS variable reported to maximum of 150 seconds. Recoded to TRAILA 2/25/2008 per UDS.

Range: 0 - 180  High score = poor

TMASEC  TRAILA_C divided by TMA

Range: 0 and above  High score = good

TRAILMAKING FORM B


PSY252  TRAILMAKING FORM B IN SECONDS  Trailmaking, Part B

Date added: 9/91  Date dropped: 1/27/94
Date reinstated: 3/24/94  Date modified to conform to UDS: 9/1/05

The score is the number of seconds spent in connecting numbered circles (1-13) alternately to letters of the alphabet (A-L) in sequential order. A maximum of 180 seconds is allowed.

Range: 0 - 180  Low score = good

PSY252 recoded as TMB as of 9/1/05

TRAIL300  TRAILMAKING FORM B IN SECONDS  Trailmaking, Part B

Date added: 1/28/94  Date dropped: 3/23/94

This variable was dropped and the data purged from database. The 5-minute time limit was too long. The 3-minute time limit was reinstated

Range 0 – 300  Low score = good

TMB  TRAILMAKING B: The score is the number of seconds spent in connecting numbered circles (1-13) to lettered circles (A-L) in alternating sequential order. A maximum of 180 seconds is allowed. Time noted during the 300-s administration in the UDS. Recoded to TRAILB. 2/25/2008 per UDS.

Range: 0 - 180  High score = poor

TMBSEC  TRAILB_C divided by TMB

Range: 0 and above  High score = good
VISUAL NEGLECT

Date added: 12/83       Date dropped: 12/31/89


PSY196 VISUAL NEGLECT LINES NEGLECTED RIGHT
Score is number of lines omitted
Range: 0 - 12           High score = poor

PSY197 VISUAL NEGLECT LINES NEGLECTED LEFT
Score is number of lines omitted
Range: 0 - 12           High score = poor

PSY198 VISUAL NEGLECT LINES NEGLECTED CENTER
Score is number of lines omitted
Range: 0 - 16           High score = poor

Summary score = PSY196 + PSY197 + PSY198
Range: 0 - 40           High score = poor

PSY199 VISUAL NEGLECT TIME (in seconds)
Range: 0 - 180           High score = poor

PSY200 VISUAL NEGLECT HANDEDNESS

1 = Right
0 = Left           High score = poor

WECHSLER ADULT INTELLIGENCE SCALE (WAIS)

PSY020 WAIS COMPREHENSION

Date added: 7/79       Date dropped 12/2/88
Raw score according to *WAIS* manual
Range: 0 - 14           High score = good

PSY022 WAIS DIGIT SYMBOL
Date added: 7/79                      Date modified to conform to UDS:  9/1/05

Raw score according to **WAIS** manual

Range: 0 - 90                      High score = good

PSY022 recoded as variable DIGSYM as of 9/1/05

**PSY089** DIGIT SYMBOL COPY

Date added: 12/83 only for those who could not do the Digit Symbol (PSY022) 8/5/86, for everyone       Date dropped: 10/03/96

Reference: Devised for this project.

Participant just copies the digits; no coding. A maximum of 90 seconds is allowed.

Range: 0 - 90                      High score = good

**PSY241** DIGIT SYMBOL, COPY TIME

Date added: 12/83 only for those who could not do the Digit Symbol (PSY022) 8/5/86, for everyone       Date dropped: 10/03/96

Reference: Devised for this project.

Time taken to complete Digit Symbol Copy (PSY089)

Range: 0 - 90                      High score = poor

**PSY245** INCIDENTAL MEMORY RECALL: TOTAL

Date added: 5/1/87                   Date dropped: 8/15/91


Participant is asked to recall the Digit Symbol pairings. Score equals number of symbols recalled.

Range: 0 - 9                      High score = good

**PSY246** INCIDENTAL MEMORY RECALL: MATCHED

Date added: 5/1/87                   Date dropped: 8/15/91

Same as PSY245 but score equals number of symbols recalled and correctly matched to numbers.

Range: 0 - 9                      High score = good
WAIS PICTURE ARRANGEMENT
Date added: 5/15/84  Date dropped: 2/12/92


Only the first three items are administered. No time limits were used.

PSY230 WAIS PICTURE ARRANGEMENT COULD NOT DO
Range: 0 - 1  High score = could not do

PSY231 WAIS PICTURE ARRANGEMENT # CORRECT
Score is the number of correct sequences
Range: 0 - 3  High score = good

WECHSLER ADULT INTELLIGENCE SCALE - REVISED (WAIS-R)
DIGIT SYMBOL (Enlarged Form)
Date added: 3/06/06  Date dropped 3/16/2015


WAIS This is an enlarged Digit Symbol form that measures 15 x 24 cm rather than 9.5 x 13 cm as in the standard WAIS-R. Otherwise administered and raw scored according to WAIS-R manual.

Range: 0 - 93  High score = good

WECHSLER ADULT INTELLIGENCE SCALE III (WAIS-III)
SIMILARITIES
Date added: 8/1/02
Date dropped from standard Knight ADRC battery: 4/1/09, retained in ACS battery


Participant is asked how two objects or concepts are alike. Score reflect abstract reasoning abilities.

SIM Raw scored according to WAIS-III manual
WECHSLER MEMORY SCALE (WMS)


PSY001 WMS INFORMATION
Subtest I. Personal and Current Information

Date added: 7/79 Date dropped: 1/84

Scored according to WMS manual. The names of persons incumbent at the time of testing were scored as correct in Question 5 (the governor of Missouri) and Question 6 (the mayor of St. Louis). Similar questions were asked in the Clinical Assessment administered by physicians.

Range: 0 - 6 High score = good

PSY070 MAP INFORMATION Alternate form of WMS Information

Date added: 1/84 Date dropped: 8/14/91

Reference: Devised for this project.

This is a simplified version of WMS Information. It is scored for content accuracy by comparison with the current clinical assessment. The score is the sum of correct responses to Questions 1-6.

Range: 0 - 6 High score = good

PSY002 WMS ORIENTATION
Subtest II. Orientation

Date added: 7/79 Date dropped: 1/84

Scored according to WMS manual. Similar questions were asked in the Clinical Assessment administered by physicians.

Range: 0 - 5 High score = good

PSY071 MAP ORIENTATION Alternate form of WMS Orientation

Date added: 1/84 Date dropped: 8/14/91

Reference: Devised for this project.
Simplified version of WMS Orientation. Score is sum of correct responses to Questions 1-5.

Range: 0 - 5

High score = good

MAP MENTAL CONTROL  Simplified version of WMS Mental Control

Date added: 1/84  Date dropped: 10/31/91

Reference: Devised for this project.

Each of the three parts is scored in the same manner as WMS Mental Control (i.e., bonus points for rapid performance and penalties for errors).

PSY079  MAP MENTAL CONTROL COUNT BACK FROM 10
Range: 0 - 3
High score = good

PSY080  MAP MENTAL CONTROL SPELL NAME
Range: 0 - 3
High score = good

PSY081  MAP MENTAL CONTROL SERIAL COUNTING BY 2
Range: 0 - 3
High score = good

**Summary score** = PSY079 + PSY080 + PSY081
Range: 0 - 9
High score = good

PSY004  WMS LOGICAL MEMORY
Subtest IV. WMS Logical Memory

Date added: 7/79  Date dropped: 9/1/05

Scored according to WMS manual.

Range: 0 - 23
High score = good

PSY073  WMS LOGICAL MEMORY DELAYED RECALL

Date added: 2/22/84  Date dropped: 6/16/91


This measure is administered 30 minutes after the first WMS Logical Memory presentation (PSY004), thus the placement among other tests varies for each individual. It is scored according to the standard instructions for the Logical Memory in the WMS manual (see PSY004).

Range = 0 - 23
High score = good

PSY251  WMS LOGICAL MEMORY - 10 MINUTE RECALL

Date added: 6/17/91  Date dropped: 9/1/05
WMS LOGICAL MEMORY - VERBATIM SCORING

Date added: 1/2/04  Date revised: 9/1/05


This is an alternate, verbatim scoring of the WMS Logical Memory stories A & B as used by Johnson et al. (2003). Record only those propositions that are recalled verbatim. No synonyms allowed.

**LMVERA**  
Story A: Range 0 – 35  
High Score = good

**LMVERB**  
Story B: Range 0 – 34  
High Score = good

MAP SENTENCE RECALL  
Simplified WMS Logical Memory

Date added: 2/22/84  PSY074 and PSY076  
Date added: 7/9/86  PSY239 and PSY240  
Date dropped: 9/11/91

Reference: Devised for this project.

This procedure is administered immediately after the WMS Logical Memory Delayed Recall trial. Participant is asked to recall three sentences (PSY074) each containing only three pieces of information and then three sentences (PSY076) each containing only four pieces of information. Subsequently three additional phrases, each containing only two pieces of information (PSY239) and three additional phrases, each only one piece of information (PSY240) were added. The score is the sum of the pieces of information in the sentences repeated (almost verbatim). Some minor omissions are allowed. If only one word in a two-word byte is repeated, a half point (.5) is allowed.

**PSY074**  
SENTENCE RECALL 3 BYTES A+B+C  
Range: 0 - 9  
High score = good

**PSY076**  
SENTENCE RECALL 4 BYTES D+E+F  
Range: 0 - 12  
High score = good

**PSY239**  
SENTENCE RECALL 2 BYTES G+H+I
PSY240  SENTENCE RECALL 1 BYTE J+K+L
Range: 0 - 3  High score = good

Summary score (until 9/86) = PSY074 + PSY076
Range = 0 - 21  High score = good

Summary score (after 9/86) = PSY074 + PSY076 + PSY239 + PSY240
Range = 0 - 30  High score = good

WMS DIGIT SPAN Subtest V. WMS Digit Span

Date added:  7/79  
Date modified to conform to UDS:  9/1/05

Scored according to the WMS manual.

PSY005  DIGITS FORWARD
Range: 0 - 8  High score = good

PSY005 recoded as variable DIGFOR as of 9/1/05

PSY006  DIGITS BACKWARD
Range: 0 - 7  High score = good

PSY006 recoded as variable DIGBACK as of 9/1/05

PSY008  VISUAL DIGIT SPAN: SIMULTANEOUS

Date added:  7/79  
Date dropped:  8/14/91

Reference: Devised for this project.

This procedure is modeled after the auditory digit span subtest of the Wechsler Memory Scale. Strings of numbers ranging in length from 2 to 8 digits are printed horizontally on cards. There are two cards with strings of each length. Presentation of each string is for as many seconds as there are digits on the card. If the first string of a particular length is passed, the second string with that number of digits is not administered. For example, the first card with a string of 2 digits is presented for 2 seconds; then the card is removed. If the participant repeats the 2 digits correctly, the first string of 3 digits is presented next for 3 seconds. If the participant does not repeat the first card with a string of 2 digits correctly, the second card with a string of 2 digits is presented for 2 seconds. Testing is discontinued when a participant fails to repeat both of the strings of a particular length. The score is the number of digits in the longest string reported correctly.

Range: 0 - 8  High score = good

PSY009  VISUAL DIGIT SPAN: SEQUENTIAL

Date added:  7/79  
Date dropped:  8/14/91
Reference: Devised for this project.

This procedure is also modeled after the auditory digit span subtest of the Wechsler Memory Scale. Single digits, rather than strings of digits, are printed on cards. The cards are grouped in sets of 2 through 8 cards. There are two sets of cards at each level (i.e., 2 through 8) or a total of 14 sets of cards. Cards are presented serially with each card shown for 1 second. After the last card in the group is taken away, the participant is asked to recite the numbers from the cards in that set in the order given. If the first set at a level is recited correctly, the second set at that level is not administered. For example, if the participant repeats the first set of 2 digits correctly, the first set of 3 cards is presented next. If the participant does not recite the 2 digits from the first set of 2 cards correctly, the second set of 2 cards is presented. Testing is discontinued when a participant fails to recite in the correct order the digits on both sets of cards at a particular level (i.e., number of cards in a set). The score is the number of digits in the longest set recited correctly.

Range: 0 - 8
High score = good

WMS ASSOCIATE LEARNING: RECOGNITION

Date added:  7/79       Date dropped:  1/2/04

Reference: Devised for this project.

A recognition trial for the pairs from the WMS Associate Learning subtest is administered immediately following the third recall trial of the WMS Associate Learning subtest. The stimulus word of each pair is printed in large type at the top of a card with four words (including the correct response) printed in smaller type horizontally below. The easy and hard pairs are interspersed, as in the WMS Associate Learning subtest, and are presented in a different random order than used on any of the recall trials. This recognition trial is scored in the same manner as the standard recall version except there is only one recognition trial.

| PSY013 | WMS ASSOCIATES RECOGNITION: EASY | Easy pairs |
| Range: 0 - 6 | High score = good |

| PSY014 | WMS ASSOCIATES RECOGNITION: HARD | Hard pairs |
| Range: 0 - 4 | High score = good |

Summary score = (PSY013 divided by 2) + PSY014
Range: 0 - 5
High score = good

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WECHSLER MEMORY SCALE - REVISED (WMS-R)

WMS-R DIGIT SPAN FORWARD

Date added:  9/1/05       Date dropped:  2/13/2017
Administered according to WMS-R manual. Scored according to UDS guidebook, which yields two scores:

**DIGIF**  
Total number of trials correct prior to two consecutive errors at the same digit length  
Range: 0 - 12  
High score = good

**DIGIFLEN**  
Digit span forward length  
Range: 0 - 8  
High score = good

**WMS-R DIGIT SPAN BACKWARD**

Date added: 9/1/05  
Date dropped: 2/13/2017

Administered according to WMS-R manual. Scored according to UDS guidebook, which yields two scores:

**DIGIB**  
Total number of trials correct prior to two consecutive errors at the same digit length  
Range: 0 - 12  
High score = good

**DIGIBLEN**  
Digit span backward length  
Range: 0 - 7  
High score = good

Date added: 9/1/05  
Link to previous WMS versions  
Date dropped: 2/13/2017


**LOGICAL MEMORY IA – Immediate**

**LOGIMEM**  
Only Story A is administered. Scored according to WMS-R manual
LOGICAL MEMORY IIA – Delayed

MEMUNITS Administered after WAIS-R Digit Symbol in prescribed UDS order, and scored according to WMS-R manual

MEMTIME Minutes elapsed since Logical Memory IA-Immediate

Range: 0-25
High score = good

WMS-R LOGICAL MEMORY Story A – Verbatim Scoring

Date added: 9/1/05
Link to previous WMS version
Dropped 2/13/2017

WMS-R LOGICAL MEMORY IA - Immediate

Date added: 9/1/05
Date dropped: 2/3/2017


LOGIMEM Only Story A is administered. Scored according to WMS-R manual

Range: 0-25
High score = good

WMS-R LOGICAL MEMORY IIA - DELAYED

Date added: 9/1/05
Date dropped: 2/13/2017


MEMUNITS Administered after WAIS-R Digit Symbol and scored according to WMS-R manual

Range: 0-25
High score = good

MEMTIME Minutes elapsed since Logical Memory IA-Immediate

Range: 0-85 minutes
WISCONSIN CARD SORTING TEST: Computer Version 4, Research Edition

Date added: 2/19/04  Date dropped: 12/31/08

References:


Computerized administration and scoring of the WCST according to Heaton et al. (1993). Note following change in procedure: the participant points to choice on the screen and the tester manipulates the mouse to make the response. The participant tells the tester if he or she wants to change the response and the tester clicks on the screen. See manual for definition of scores.

wcstspsc Special score
   R = refused
   C = cognitive confusion
   I = physical difficulties
   M = examiner decided to not administer (cooperation not possible)
   A = all administered

wcstrad Number trials administered
   Range: 0 - 128  High score = poor

wcsttotc Total number correct trials
   Range: 0 - 128  High score = good

wcsttote Total errors
   Range: 0 - 128  High score = poor

wcstperr Perseverative responses
   Range: 0 - 126  High score = poor

wcstpere Perseverative errors
   Range: 0 - 126  High score = poor

wcstnpe Nonperseverative errors
   Range: 0 - 128  High score = poor
wcstclre  Conceptual level responses (%)  
Range:  0 - 100  
High score = good

wcstcatc  Categories completed  
Range:  0 - 6  
High score = good

wcsttrcm  Trials to first category  
Range:  10 - 129  
High score = poor

wcstfail  Failure to maintain set  
Range:  0 - 21  
High score = poor

westlm  Learning to learn (%)  
Range:  negative to positive  
High score = good

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WORD FLUENCY

Date added:  7/79  
Date dropped:  2/13/2017


PSY032  WORD FLUENCY LETTER S

Participants are asked to name as many words that begin with the letter S as they can in 1 minute.  
Range:  0 and above  
High score = good

PSY033  WORD FLUENCY LETTER P

ZUNG DEPRESSION SCALE

Date added:  7/79  
Date dropped:  6/82

PSY036  ZUNG DEPRESSION:  SDS SCALE AT T1


Raw scores were converted to SDS scores using the conversion table.  
Range:  0 - 100  
High score = more depressed

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Benton Visual Relations Test – Form D
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Boston Naming Test
  30 (Odd Numbered Items)
  60 Item Version
  85 Item Version
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Wechsler Memory Scale
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Wechsler Memory Scale-III
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