### **LIFE Cognition Battery**

Before beginning the testing, make sure all materials are in order. You will need:

LIFE Cognition Testing Forms (download from LIFE website)
Tape recorder and tape
Stopwatch
Clipboard
Pen/pencil
Digit Symbol participant worksheet (not available on website? hard copy only)
Digit Symbol scoring template
Laminated cards:

- · Close your eyes
- · Pentagon drawing
- Stroop subtests 1-3

Blank sheets of paper Wristwatch

Order of LIFE Cognition Battery: Rey AVLT (Auditory-Verbal Learning Test) 3MSE (Modified Mini-Mental State Exam) Digit Symbol Stroop: Subtests 1, 2, and 3 Rey Long Delay Free Recall

Prior to starting actual testing ask the participant for permission to tape record the session. Explain that the purpose of the audiotape is to ensure that the test administration and scoring are done correctly and consistently across all sites. There will be no identifying information on the tape. Once the data has been verified and entered into the computer database, the tape will be erased.

Before testing ask the participant if s/he wears glasses or uses a hearing aid? If so, does s/he have them? Script:

"Today we are going to do a few tasks that involve memory, concentration and drawing. Some tasks will be easy and others will be harder. You should not worry about how well you are doing. Just give each one your full attention and do the best you can. I will tell you what you need to do before each task, but I cannot offer any help. Do you have any questions?"

# Rey Auditory Verbal Learning Test (RAVLT) Immediate Recall

#### Administration:

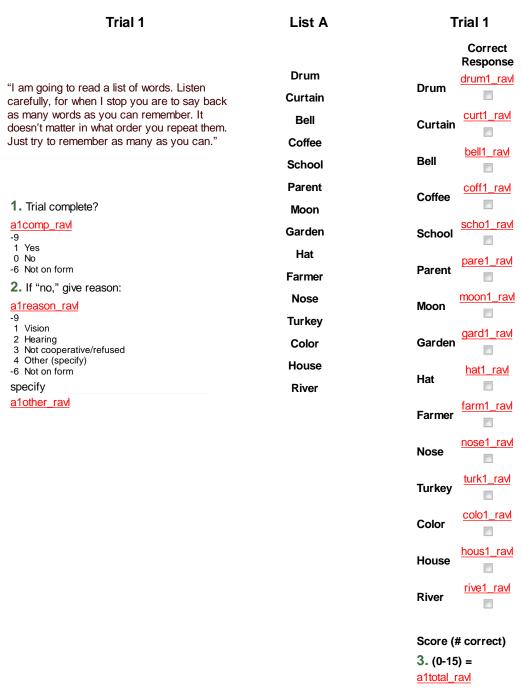
Rey A-VLT consists of 5 presentations with recall of a 15-word list (List A), one presentation of a second 15-word list (List B) with recall, and a final recall of List A (Trial 6.) Allow a maximum of 1 minute per trial for the recall. Read the list at a rate of one word per second? not too fast, not too slow. Check off all recalled words. After the final recall Trial 6? note the time. You must have a =>15 minute delay for the long delayed recall at the end of testing (see RAVLT delayed recall).

After reading the list of words, allow approximately 5 seconds for a response before providing prompt of "give it a try". If the participant is silent for 10-15 seconds ask "anything else? or, if the participant signals that he/she is finished, ask ?anything else?"

NOTE: If participant asks how many words he/she has gotten right, has missed, or anything of that nature, respond by saying, "Don't worry about that, just do the best you can."

Scoring Key for each trial (1-5):

# correct = total number of words correctly given in each trial



Allow a maximum 1 minute for recall. Check off words as they are recalled. Total the number of words recalled.

#### Trial 2

"Now I am going to read the same list again and once again, when I stop I want you to tell me as many words as you can remember, including words you said the first time. It doesn't matter in what order you say them. Just say as many words as you can remember, whether or not you said them before."

#### Trial 2

Correct Response drum2\_raw

Drum

Curtain

Bell

Coffee

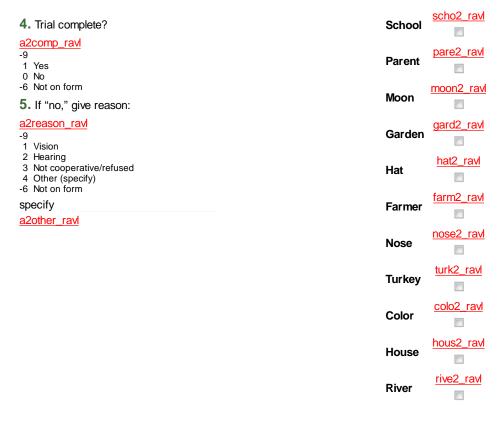
Correct
Response
drum2\_raw

bell2\_raw

coff2\_raw

"Go ahead"

Score (# correct)
6. (0-15) =
a2total\_ravl



Trial 3 Trial 4 Trial 5 Correct Correct Correct Response Response Response Allow a maximum drum3\_ravl drum4\_ravl drum5\_ravl 1 minute for recall. Drum Drum Drum Check off words curt3\_ravl as they are curt4\_ravl curt5\_ravl Curtain Curtain Curtain recalled. Total the number of words bell3\_ravl bell4 ravl bell5 ravl recalled. Bell Bell Bell Trial 3, 4, 5 coff3\_ravl coff4\_ravl coff5\_ravl Coffee Coffee Coffee "Now I am going to read the same list scho3\_ravl scho5\_ravl scho4\_ravl again. When I **School** School School stop, tell me as many words as pare3\_ravl pare4\_ravl pare5\_ravl you can remember **Parent Parent Parent** including words you may have moon5\_ravl moon3\_ravl moon4\_ravl Moon Moon Moon already said." gard3\_ravl gard5\_ravl gard4\_ravl Garden Garden Garden hat4\_ravl hat3\_ravl hat5\_ravl Hat Hat Hat farm3\_ravl farm4\_ravl farm5\_ravl **Farmer Farmer** Farmer 

| Nose nose3 rav  | Nose nose4 rav  | Nose nose5 ravl  |
|---|---|--|
| Turkey turk3_rav  | Turkey turk4_ravl   | Turkey turk5_rav   |
| Color colo3_ravl  | Color colo4_ravl  | Color colo5_rav  |
| House hous3_ravl  | House hous4_ravl  | House hous5_ravl   |
| River rive3_ravl  | River rive4_rav   | River rive5_rav  |
| Score (# correct)   | Score (# correct)   | Score (# correct)  |
| 7. (0-15) =   | 10. (0-15) =  | 13. (0-15) =   |
| a3total_ravl  | a4total_ravl  | a5total_ravl   |
| 8. Trial complete?  | 11. Trial complete?   | 14. Trial complete?  |
| a3comp_ravl   | a4comp_ravl<br>-9   | <u>a5comp_ravl</u><br>-9   |
| 1 Yes   | 1 Yes   | 1 Yes  |
| 0 No<br>-6 Not on form  | 0 No<br>-6 Not on form  | 0 No<br>-6 Not on form   |
| 9. If "no," give reason:  | 12. If "no," give reason:   | 15. If "no," give reason:  |
| a3reason_rav  9 1 Vision 2 Hearing 3 Not cooperative 4 Other (specify) -6 Not on form specify a3other_rav | a4reason_ravl -9 1 Vision 2 Hearing 3 Not cooperative 4 Other (specify) -6 Not on form specify a4other_ravl | a5reason_rav  -9 1 Vision 2 Hearing 3 Not cooperative 4 Other (specify) -6 Not on form specify a5other_rav |
| 1   | , , , <u> </u>  | 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  |

# Rey Auditory Verbal Learning Test (RAVLT) Interference List (List B) & Short-Delay Free Recall

#### Administration:

Interference Trial (List B):

Read a second 15-word list (List B), allowing a maximum of 1 minute for recall. The list should be read at a rate of one word per second? not too fast, not too slow. Check off words as they are recalled.

#### Trial 6 (List A):

Then ask the participant to recall words from the first list (List A) that was read 5 times. Allow a maximum of one minute for recall. On this final trial, <u>do not</u> read the list again, just ask the participant to recall words from the first list. Check off words as they are recalled. If the participant is silent for 10-15 seconds ask ?anything else? or, if the participant signals that he/she is finished, ask "anything else?"

After Trial 6 ? note the time. You must have no less than a 15 minute delay for the delayed recall at the end of testing (see RAVLT long delay recall.)

Scoring Key for Interference Trial and Trial 6: # correct = total number of words correctly given in each trial

"Now I am going to read a second list of words.

This time, say back as many words of this second list as you can remember. It doesn't matter in what order you say them. Just say as many words as you can remember."

Ranger

Bird

List B

Correct Response

Response

Response

Mesk raw

Desk

Desk

Desk

Desk

Desk

Desk

Desk

Desk

Desk

This time, say back as many words as you can remember. It doesn't matter in what order you say them. Just say as many words as you can remember."

| 16. Trial complete?  | Shoe                          | Ranger                                 | rang_ravl |
|--|-------------------------------|--|-----------|
| <u>b1comp_ravl</u><br>-9<br>1 Yes  | Stove<br>Mountain             | Bird                                   | bird_ravl |
| 0 No -6 Not on form  17. If "no," give reason:                                 | Glasses<br>Towel              | Shoe                                   | shoe_ravl |
| b1reason_ravl<br>-9  | Cloud                         | Stove                                  | stov_ravl |
| <ul><li>1 Vision</li><li>2 Hearing</li><li>3 Not cooperative/refused</li></ul> | Boat<br>                      | Mountain                               | moun_ravl |
| 4 Other (specify)  | Lamb                          | Wountain                               |           |
| -6 Not on form specify   | Gun                           | Glasses                                | glas_ravl |
| b1other_ravl   | Pencil                        |  |           |
|  | Church                        | Towel                                  | towe_ravl |
|  | Fish                          | Cloud                                  | clou_ravl |
|  | "Okay, tell<br>me as          | Boat                                   | boat_ravl |
|  | many<br>words as<br>you can." | Lamb                                   | lamb_ravl |
|  |                               | Gun                                    | gun_ravl  |
|  |                               | Pencil                                 | penc_ravl |
|  |                               | Church                                 | chur_ravl |
|  |                               | Fish                                   | fish_ravl |
|  |                               | Score (# 0<br>18. (0-15<br>b1total_ray | ) =       |

## **Rey AVLT Short-Delay Free Recall**

Allow a maximum 1 minute for recall. Check off words as they are recalled. Total the number of words recalled.

#### Trial 6

|  |         | Correct<br>Response | 22. Look at watch at completion of Tria |         |
|--|---------|---------------------|---|---------|
| "Now I would like you to tell me all the words   | Drum    | drum6_ravl          | timetot_ravl                            | (hh:mm) |
| you can remember from the first list, the one I read to you several times. Don't tell me words from the second list, just the first list. Go ahead." | Curtain | curt6_ravl          | timeampm_ravl<br>-9<br>AM AM<br>PM PM   |         |
| Go aneau.  | Bell    | bell6_ravl          | -6 Not on form<br>AM/PM                 |         |
| 19. Trial complete?  | Coffee  | coff6_ravl          |   |         |
| a6comp_ravl -9 1 Yes 0 No -6 Not on form   | School  | scho6_ravl          |   |         |



#### Modified Mini Mental State Exam (3MSE)

Script: I would like to ask you a few questions that require concentration and memory. Some are more difficult than others and some will be asked more than once.

#### 23. When were you born?

| a. mborn_mse3<br>Month       | mborncor_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form |
|------------------------------|--|
| b. dborn_mse3                | Day   dborncor_mse3   -9   |
| c. <u>yborn_mse3</u><br>Year | yborncor_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form |
| Where were you born?         |  |
| d. cborn_mse3                | cborncor_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form |
| e. sborn_mse3<br>State       | sborncor_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form |

#### 24. I am going to say three words for you to remember: Repeat them after I have said all three words: Shoes, Brown, Modesty

Interviewer note: Do not repeat the words for the participant until after the first trial. The participant may give the words in any order. If there are errors on the first trial, repeat the items up to six times until they are learned.

Score results for first trial only.

| a. shoes   | snoes1 mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form   |
|------------|--|
| b. brown   | brown1 mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form   |
| c. modesty | modesty1_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form |

d. Number of presentations necessary for the participant to repeat the sequence: <a href="mailto:numpres\_mse3">numpres\_mse3</a>

#### 25. I would like you to count from 1 to 5

```
countto5_mse3
                                  -9
                                  1 Correct
a. If unable: Say: 1-2-3-4-5.
                                  2 Error/Refused
                                  3 Not attempted/disabled
                                 -6 Not on form
```

b. Now I would like you to count backwards from 5 to 1 countbak mse3

Record responses in the order given: (99999 if no response)

#### 26. Spell "world".

- a. If unable: Say.. It's spelled W-O-R-L-D world\_mse3 1 Correct 2 Error/Refused
- 3 Not attempted/disabled
- -6 Not on form
- b. Now spell ?world? backwards. worldbak mse3

Record letters in order given: (XXXXX if no response)

#### 27. What three words did I ask you to remember earlier?

Interviewer note: The words may be repeated in any order. If the participant cannot give the correct answer after a category cue, provide the three choices listed. If the participant still cannot give the correct answer from the three choices, mark the appropriate box.

```
shoe2_mse3
                       1 Spontaneous Recall
                       2 Correct word/incorrect form or after "Something to wear"
a. shoes
                       3 After "Was it shirt, shoes or socks?"
                       4 Unable to recall/refused
                       5 Not attempted/disabled
                      -6 Not on form
                      brown2_mse3
                         Spontaneous Recall
                       2 Correct word/incorrect form or after "Something to wear"
3 After "Was it shirt, shoes or socks?"
b. brown
                       4 Unable to recall/refused
                       5 Not attempted/disabled
                      -6 Not on form
                      modesty2_mse3
                       1 Spontaneous Recall
c. modesty

    Correct word/incorrect form or after "A good personal quality".
    After "Was it honesty, charity or modesty?"
                       4 Unable to recall/refused
```

```
5 Not attempted/disabled
28. a. What is today's date? today_mse3
                                                              (mm/dd/yyyy)
                        todaycor_mse3
                           Correct
              Correct?
                        2 Error/Refused
                        3 Not attempted/disabled
     b. What is the day of the week? (If incorrect, record answer: dayweek_mse3
                        daywkcor_mse3
                        -9
                           Correct
              Correct?
                        2 Error/Refused
                        3 Not attempted/disabled
                        -6 Not on form
     c. What season of the year is it? (If incorrect, record answer: season_mse3
                           Correct
              Correct?
                        2 Error/Refused
                        3 Not attempted/disabled
                        -6 Not on form
29. a. What state are we in? (If incorrect, record answer: state_mse3
                        statecor_mse3
                        -9
                          Correct
              Correct?
                        2 Error/Refused
                        3 Not attempted/disabled
                        -6 Not on form
     b. What country are we in? (If incorrect, record answer: county_mse3)
                        cntycor_mse3
                        1 Correct
               Correct?
                        2 Error/Refused
                        3 Not attempted/disabled
                        -6 Not on form
     c. What city/town are we in? (If incorrect, record answer: city_mse3
                        citycor_mse3
                           Correct
              Correct?
                        2 Error/Refused
                        3 Not attempted/disabled
                        -6 Not on form
      d. Are we in a clinic, store or home? location_mse3
      -9
        Error/Refused
      3 Not attempted/disabled
```

Interviewer note: If the correct answer is not among the three choices (e.g., hospital or nursing home), substitute it for "store". If the participant states that none is correct, ask them to make the best choice of the three.

**30.** Interviewer note: Point to the object or a part of your own body and ask the participant to name it. Score as error if the participant cannot name it within 2 seconds or gives an incorrect name. Do not wait for the participant to mentally search for the name.

```
a. What is this? (pencil)

a. What is this? (pencil)

1 Correct
2 Error/Refused
3 Not attempted/disabled
6 Not on form

watch_mse3
-9

b. What is this? (watch)

1 Correct
2 Error/Refused
3 Not attempted/disabled
6 Not on form
```

| c. What do you call this part of your face? (forehead) | forehead_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form |
|--|--|
| d And this part? (chin)                                | chin_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form     |
| e. And this part of the body? (shoulder)               | shoulder_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form |
| f And this part? (elbow)                               | elbow_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form    |
| g And this part of the hand? (knuckle)                 | knuckle_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form  |

#### 31. What animals have four legs? Tell me as many as you can.

Interviewer note: <u>Discontinue after 30 seconds</u>. Count all correct responses. If the participant gives no response in 10 seconds, and there are at least 10 seconds of remaining time, gently remind (only once) ?What (other) animals have four legs?? The first time an incorrect answer is provided, say ?I want four-legged animals.?

Do not correct for subsequent errors.

| (1) animal1_mse3          | (2) animal2_mse3          |
|---------------------------|---------------------------|
| (3) animal3_mse3          | (4) <u>animal4_mse3</u>   |
| (5) animal5_mse3          | (6) <u>animal6_mse3</u>   |
| (7) animal7_mse3          | (8) animal8_mse3          |
| (9) animal9_mse3          | (10) animal10_mse3        |
| (11) <u>animal11_mse3</u> | (12) animal12_mse3        |
| (13) animal13_mse3        | (14) animal14_mse3        |
| (15) <u>animal15_mse3</u> | (16) <u>animal16_mse3</u> |
| (17) <u>animal17_mse3</u> | (18) <u>animal18_mse3</u> |
| (19) <u>animal19_mse3</u> | (20) animal20_mse3        |
| (21) <u>animal21_mse3</u> | (22) animal22_mse3        |
| (23) <u>animal23_mse3</u> | (24) animal24_mse3        |

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Total correct answers <a href="mailto:animtot\_mse3">animtot\_mse3</a>

**32.** Interviewer note: if the participant fails to give an answer that is complete, assign the appropriate answer. If the answer to **a.** is not completely correct, coach the participant by saying ?An arm and a leg are both limbs or extremities?. Do not coach for answers b & c.

armleg\_mse3

-9 1 Limbs, extremities Lesser correct answer (e.g., body parts, both <sup>2</sup>bend, have joints) a. In what way are an arm and a leg alike? 3 Error (e.g., states differences, gives unrelated answer)/ refused 4 Not attempted/disabled -6 Not on form laughcry\_mse3 Expressions of feelings, emotions Lesser correct answer (e.g., sounds, 2 Lesser Co. expressions) b. In what way are laughing and crying alike? Error (e.g., states differences, gives unrelated 3answer)/refused 4 Not attempted/disabled 5 Not on form eatsleep\_mse3 1 Necessary body functions, essential for life Lesser correct answer (e.g., bodily functions, relaxing, "good for you") c. In what way are eating and sleeping alike? Error (e.g., states differences, gives unrelated answer)/refused 4 Not attempted/disabled -6 Not on form

33. Interviewer note: Pronounce the individual words clearly, but with normal tempo of a spoken sentence.

Repeat what I say: ?I would like to go out.?

Repeat what I say: ?I would like to go out.?

1 Correct
2 1 or 2 words missed
3 3 or more words missed/refused
4 Not attempted/disabled
-6 Not on form

**34.** Interviewer note: Pronounce the individual words clearly, but with normal tempo of a spoken sentence. Give no credit if the participant misses the "s".

#### Now repeat: "No ifs, ands or buts"

noifs\_mse3 -9 1 Correct a. No ifs 2 Error/Refused 3 Not attempted/disabled -6 Not on form ands\_mse3 1 Correct b. ands 2 Error/Refused 3 Not attempted/disabled -6 Not on form orbuts\_mse3 -9 1 Correct c. buts 2 Error/Refused 3 Not attempted/disabled -6 Not on form

**35.** Interviewer note: If the participant does not close his or her eyes withing 5 seconds, prompt by pointing to the sentence and saying "Read and do what this says." If the participant has already read the sentence aloud spontaneously, simply say ?Do what this says.?

Allow 5 seconds for the response. Record appropriate answer. As soon as the participant closes his or her eyes, say "Open.

Hold up the "Close you eyes" card and say: "Please do this" <a href="clseyes\_mse3">clseyes\_mse3</a>

- 1 Closes eyes without prompting
- 2 Closes eyes after prompting
- 3 Reads aloud, but does not close eyes
- 4 Does not read aloud or close eyes/refused
- 5 Not attempted/disabled
- -6 Not on form

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**36.** Interviewer note: Hand the participant a piece of paper and a #2 pencil with eraser. If necessary, repeat the sentence word by word as the participant writes. Allow a <u>maximum of 1 minute</u> after the reading of the sentence for the scored response.

Either printing or cursive writing is allowed. For each word, score as error if there are spelling errors or incorrect mixed capitalization's (all letters printed in uppercase is permissable). There will be no score for the word "I". Do not penalize self-corrected errors.

#### Please write the following sentence: "I would like to go out" (maximum 1 minute)

| a. would  | would_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form  |
|---|--|
| b. like   | like mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form   |
| c. to   | to_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form   |
| d. go   | go_mse3 -9 1 Correct 2 Error/Refused 3 Not attempted/disabled -6 Not on form   |
| e. out  | <ul> <li>out mse3</li> <li>-9</li> <li>1 Correct</li> <li>2 Error/Refused</li> <li>3 Not attempted/disabled</li> <li>-6 Not on form</li> </ul> |
| f. Note which hand the<br>participant uses to<br>write: | handused_mse3 -9 1 Left 2 Right 3 Unknown 4 Error/Refused 5 Not attempted/disabled -6 Not on form  |

Interviewer note: If the task is not done, ask participant if s/he is right or left-handed. (for use in Question 38)

**37.** Interveiwer note: Hand the participant a piece of paper and card with pentagon drawing. For right-handed participants, present the sample on their left side. For left-handed participants, present the sample on their right side. Allow one minute for copying. In scoring, do not penalize for self-corrected errors, tremors, minor gaps, or overshoots.

#### Here is a drawing. Please copy the drawing onto this piece of paper. (maximum 1 minute)

```
pent1_mse3
                     1 5 approximate equal sides
                     2 5 sides, but longest: shortest is > 2;1
a. Pentagon I
                     3 Nonpentagon enclosed figure
                      4 2 or more lines, not an enclosure
                     5 Less than 2 lines/ refused
                     6 Not attempted/disabled
                     -6 Not on form
                     pent2_mse3
                     1 5 approximate equal sides
                     2 5 sides, but longest: shortest is > 2;13 Nonpentagon enclosed figure
b. Pentagon II
                     4 2 or more lines, not an enclosure
                     5 Less than 2 lines/ refused
                     6 Not attempted/disabled
                     -6 Not on form
                     intersec_mse3
                     -9
                     1 4-corned enclosure
c. Intersection
                     2 Other than 4-corned enclosure
                     3 No enclosure/refused
```

- 4 Not attempted/disabled
- -6 Not on form
- 38. Interviewer note: Refer back to Question 36 to determine the participant's dominate hand. Hold up a piece of white paper in plain view of the participant but out of his or her reach, and say:

#### "Take this paper with your left (right for left-handed persons) hand, fold it in half, and hand it back to me."

After saying the whole command, hold the paper within reach of the participant. Do not repeat any part of the command. Do not give visual clues for the subject or take or return the paper. They may hand it back with either hand.

corrhand\_mse3 -9 Correct a. takes paper in correct hand 2 Error/Refused 3 Not attempted/disabled -6 Not on form foldspap\_mse3 -9 Correct b. folds paper in half 2 Error/Refused 3 Not attempted/disabled -6 Not on form handspap\_mse3 -9 Correct c. hands paper back 2 Error/Refused 3 Not attempted/disabled -6 Not on form

39. Interviewer note: The words may be repeated in any order. If the participant cannot give the correct answer after a category cue, provide the three choices listed. If the participant still cannot give the correct answer from the three choices, score and provide the correct answer.

#### What three words did I ask you to remember earlier?

#### shoes3\_mse3 Spontaneous Recall Correct word/incorrect form or after "Something to wear" a. shoes 3 After "Was it shirt, shoes or socks?" Unable to recall/Refused 5 Not attempted/disabled -6 Not on form brown3\_mse3 Spontaneous Recall Correct word/incorrect form or after "A Color" b. brown 3 After "Was it blue, black or brown? Unable to recall/Refused 5 Not attempted/disabled -6 Not on form modesty3\_mse3 Spontaneous Recall Correct word/incorrect form or after "A good personal quality" c. modesty After "Was it honesty, charity or modesty? Unable to recall/Refused Not attempted/disabled -6 Not on form

#### mse3

| 40. Would you please t    | ell me again where were you born?  |
|---------------------------|--|
| City stborn_mse3          | State  |
| Correct? 1 Mate<br>2 Does | s not match/refused<br>attempted/disabled  |
| 41. Special Problems?     | specprob_mse3 -9 1 Vision 2 Hearing 3 Inablity to write due to injury/illness 4 Illiteracy/lack of education 5 Language 6 Other (specify) -6 Not on form |

mse3imp\_mse3

Other (specified) probspec\_mse3

**42.** Interviewer note: Have you observed any signs today of the participant's cognitive impairment?

hygiene\_mse3

# -9 1 None (End) 2 Unsure (End) 3 Definite (Go to Q43) 4 Possible (Go to Q43)

43. Judgement from Question 42 is based on:

| a. Hygiene / Personal Care              | -9<br>1 Yes<br>2 No<br>3 Unsure<br>-6 Not on form   |
|---|---|
| b. Inconsistencies in speech or actions | incnspch_mse3 -9 1 Yes 2 No 3 Unsure -6 Not on form |
| c. Memory problems / lapses             | memprob_mse3 -9 1 Yes 2 No 3 Unsure -6 Not on form  |
| d. Problems following directions        | probdirs_mse3 -9 1 Yes 2 No 3 Unsure -6 Not on form |
| e. Emotional responses                  | emoresp_mse3 -9 1 Yes 2 No 3 Unsure -6 Not on form  |

#### **DIGIT SYMBOL**

#### Administration:

Hand the participant a pencil and begin instructions.

"In this next section, I'm going to ask you to copy some symbols. Look at these boxes. Notice that each has a number in the upper part and a special mark in the lower part. Each number has its own mark." (Point to the seven squares located to the left of the heavy black line.) "Now look down here where the squares have numbers in the top part but the squares at the bottom are empty. In each of the empty squares, put the mark that should go there."

Demonstrate by filling in the first two empty boxes with the corresponding symbol.

"Like this. Here is a 2; the 2 has this mark (point to symbol) . So, I put it in this empty square, like this." (Write in the symbol.) "This is a 1; the 1 has this mark, so I put it in the square like this (write in the symbol) ."

After marking the first two Sample Items, say: ?Now you fill in the squares up to this heavy line.?

PROBLEMS: If the participant makes an error on any of the Sample Items, correct the error immediately and review the use of the key. Continue to provide help if needed. DO NOT PROCEED WITH THE TEST UNTIL THE PARTICIPANT CLEARLY UNDERSTANDS THE TASK. If after three trials of explaining the Sample the participant does NOT understand, discontinue and move on to Stroop Test.

When all the Sample Items have been completed, point to the first square to the right of the heavy line and say:

"Now you know how to do them. Begin here and fill in as many squares as you can, one after the other without skipping any. Keep working until I tell you to stop. WORK AS QUICKLY AS YOU CAN without making any mistakes."

Sweep across the first row with your finger and say: "When you finish this line, go on to this one. Go ahead."

#### Begin Timing ? Discontinue after 2 minutes

**SKIPPING AROUND**: If the participant skips a box, redirect him/her the first time only. Say "start here" and point to the box that was skipped. Redirect only once. If participant skips a second box, do not redirect.

#### SCORING THE TEST:

You should be seated where you can observe the participant closely. If the participant begins to work out of sequence (after being redirected the first time), place an ?X? in the box after the last correctly completed symbol using a pen or marker.

Credit is not given for items completed out of sequence. (Out of sequence means clustering or grouping, for example, doing all the 1's.)

Using the Digit Symbol Scoring Template, record 1 point for each correctly drawn symbol completed within the 2 minute time limit.

A response is scored as correct if it is clearly identifiable as the keyed symbol, even if it is drawn imperfectly or if it is a spontaneous correction of an incorrect symbol.

Maximum score = 133 points.

```
44. Digit Symbol given? given_digt

-9
1 Yes
0 No
-6 Not on form

45. If "no," give reason: reason_digt

-9
1 Vision
2 Hearing
3 Not cooperative/refused
4 Other (specify)
-6 Not on form
```

46. Total score (number of boxes completed correctly):  $(0 - 133) = total\_digt$ 

#### STROOP SUBTEST 1

#### Administration:

Other (specify) other\_digt

Time allowed for Stroop Subtest 1 - 2 minutes (120 seconds)

If participant does not understand directions on Subtest 1 of Stroop, technician may repeat up to two times. If participant still does not understand instructions, technician should move on to Subtest 2. Participant is allowed to hold the paper by the edges, but is not allowed to point to the items.

After the test begins, should the participant start over or stop suddenly, DO NOT stop the stopwatch. Just say, "Please continue." (If participant says a color in error and self-corrects, continue with test and do not count a self-correction as an error.)

Practice:

NOTE: If participant cannot read the practice items as requested, skip to Stroop Subtest #2.

"Please read the names of the first three colors presented on this sheet as fast as possible. Read them left to right." (While giving instructions, show the sheet to the participant and run your finger from left to right in the first row.)

Correct response is Blue, Blue, Yellow.

If it is done incorrectly, then repeat the instructions and ask the participant to try again up to two times.

Test:

"When I tell you to begin, start at the beginning of the first line and please read the names of all the colors presented on the sheet as fast as possible. Again, do it line by line left to right." (While giving instructions, show the sheet to the participant and run your finger from left to right in the first row, then the second row and then the third row.) "Go ahead."

SCORING:

Start the stopwatch as soon as the participant starts to read/name colors. Record:

- 1. The time it takes to go through Subtest 1
- Number of errors in Subtest 1 (circle the E for error below the color). NOTE: the participant is allowed to self-correct and self-corrections are not counted as errors.
- 3. Number correct in Subtest 1.
- 4. If participant exceeds 2 minute time limit, place an ?X? in the box after the last correct response.

Discontinuation rule: Attempt all three subtests with every participant. For those participants who attempt the test and understand the time limits (2 minutes for subtest 1 and 2, 3 minutes for subtest 3) determine whether the test is discontinued or not.

#### STROOP SUBTEST 1 - SCORE SHEET Circle E if participant responds with the wrong word

| 1  | Blue<br>E          | Blue<br>E<br>2   | Yellow<br>E<br>3      | Green<br>E<br>4   | Red<br>E<br>5       |
|----|--------------------|------------------|-----------------------|-------------------|---------------------|
| 6  | Blue<br>E          | Yellow<br>E<br>7 | Yellow<br>E           | Green<br>E        | Yellow<br>E<br>10   |
| 11 | Red<br>E           | Red<br>E<br>12   | Green<br>E<br>13      | Red<br>E<br>14    | Green<br>E<br>15    |
| 16 | Red<br>E           | Blue<br>E<br>17  | Blue<br>E<br>18       | Green<br>E<br>19  | Red<br>E<br>20      |
|    |                    |                  |                       |                   |                     |
| 21 | <b>Yellow</b><br>E | Green<br>E<br>22 | Yellow<br>E<br>23     | Yellow<br>E<br>24 | Green<br>E<br>25    |
| 21 |                    | E                | E                     | E                 | E                   |
|    | E<br>Red           | E 22 Red E       | E<br>23<br>Green<br>E | 24  Yellow E      | E<br>25<br>Red<br>E |

- 47. Number of errors: errors\_str1
- 48. Number correct: correct str1
- 49. Time to complete test (maximum 2 minutes written as seconds [0-120]): timecomp\_str1
- **50.** Stroop Subtest 1 given? given\_str1
- 1 Yes
- -6 Not on form
- 51. If "no," give reason: reason\_str1
- 1 Vision
- 2 Hearing
- 3 Uncooperative/refused
- 4 Can't Read
- 5 Other (specify)
- -6 Not on form

Other (Specify) other\_str1

#### STROOP SUBTEST 2

#### Administration:

Time allowed for Stroop Subtest 2 = 2 minutes (120 seconds)

If participant does not understand directions on Subtest 2, technician may repeat up to two times. If participant still does not understand instructions, technician should move on to Subtest 3.

After the test begins, should the participant start over or stop suddenly, DO NOT stop the stopwatch. Just say, "Please continue." (If participant says a color in error and self-corrects, continue with test and do not count a self-correction as an error.)

Practice:

"Going left to right, please name the first three colors presented on this sheet as fast as possible ." (While giving instructions, show the sheet to the participant. CHECK TO MAKE SURE THE ARROWS ARE POINTING UPWARD. Run your finger from left to right in the first row.) Correct response is Green, Red,

Yellow.

If it is done incorrectly, then repeat the instructions and ask the participant to try again up to two times.

"When I tell you to begin, start at the beginning of the first line going left to right, and please name the colors of the squares as fast as possible. Do it line by line." (While giving instructions, show the sheet to the participant and run your finger from left to right in the first row, then the second row and then the third row.) "Go ahead."

#### SCORING:

Start the stopwatch as soon as the participant starts to read/name colors. Record:

- 1. The time it takes to go through Subtest 2
- 2. Number of errors in Subtest 2 (circle the E for error below the color). NOTE: If participant says a color in error and self-corrects, continue with test and do not count a self-correction as an error.
- 3. Number correct in Subtest 2.
- 4. If participant exceeds 2 minute time limit, place an ?X? in the box after the last correct response.

STROOP SUBTEST 2 - SCORE SHEET Circle E if participant responds with the wrong word.

|    | Green<br>E         | Red<br>E          | Yellow<br>E      | <b>Yellow</b><br>E | Red<br>E          |
|----|--------------------|-------------------|------------------|--------------------|-------------------|
| 1  |                    | 2                 | 3                | 4                  | 5                 |
| 6  | Blue<br>E          | Green<br>E        | Blue<br>E<br>8   | Blue<br>E<br>9     | Yellow<br>E<br>10 |
| 11 | Yellow<br>E        | Red<br>E<br>12    | Blue<br>E<br>13  | Yellow<br>E<br>14  | Blue<br>E<br>15   |
|    | Green<br>E         | Red<br>F          | Blue<br>E        | Green<br>E         | Red<br>F          |
| 16 | _                  | 17                | 18               | 19                 | 20                |
| 21 | Blue<br>E          | Yellow<br>E<br>22 | Green<br>E<br>23 | Blue<br>E<br>24    | Red<br>E<br>25    |
| 26 | <b>Yellow</b><br>E | Green<br>E<br>27  | Red<br>E<br>28   | Green<br>E<br>29   | Yellow<br>E<br>30 |
| 31 | Blue<br>E          | Yellow<br>E<br>32 | Blue<br>E<br>33  | Blue<br>E<br>34    | Yellow<br>E<br>35 |
| 36 | Blue<br>E          | Blue<br>E<br>37   | Red<br>E         | Green<br>E<br>39   | Red<br>E<br>40    |

- 52. Number of errors: errors\_str2
- **53.** Number correct: <a href="mailto:correct\_str2">correct\_str2</a>
- 54. Time to complete test (maximum 2 minutes recorded as seconds [0-120]): timecomp\_str2
- 55. Stroop Subtest 2 given? given\_str2
- -9 1 Yes
- -6 Not on form
- 56. If "no," give reason: reason\_str2
- 1 Vision
- 2 Hearing
- 3 Uncooperative/refused
- 4 Can't Read
- 5 Other (specify)
- -6 Not on form

Other (Specify) other\_str2

#### **STROOP SUBTEST 3**

#### Administration:

Time allowed for Stroop Subtest 3 = 3 minutes (180 seconds)

If participant does not understand directions on Subtest 3 of Stroop, technician may repeat up to two times.

After the test begins, should the participant start over or stop suddenly, DO NOT stop the stopwatch. Just say, **?Please continue.?** If participant says a color in error and self-corrects, continue with test and do not count a self-correction as an error.

Practice:

"Going left to right, please name the color in which each of the first three words is printed. That is, I want you to name the color of the ink, not to read the word." (While giving instructions, show the sheet to the participant and run your finger from left to right in the first row.) Correct response is Yellow, Red, Blue.

If it is done incorrectly, then repeat the instructions and ask the participant to try again up to two times. Test:

"When I tell you to begin, start at the beginning of the first line going left to right, and p lease name as fast as possible the color of the ink in which each of these words is printed. That is, I want you to name the color of the print, not to read the word. Do it line by line ."(While giving instructions, show the sheet to the participant and run your finger from left to right in the first row, then the second row and then the third row.) "Go ahead."

#### SCORING:

Start the stopwatch as soon as the participant starts to read/name colors. Record:

- 1. The time it takes to go through Subtest 3
- 2. Number of errors in Subtest 3 (circle the E for error below the color). NOTE: If participant says a color in error and self-corrects, continue with test and do not count a self-correction as an error.
- 3. Number correct in Subtest 3
- 4. If participant exceeds 3 minute time limit, place an ?X? in the box after the last correct response.

# STROOP SUBTEST 3 – SCORE SHEET Circle E if participant responds with the wrong color.

| Yellow     | Red <sub>E</sub> | Blue E      | Yellow E     | Red                    |
|------------|------------------|-------------|--------------|------------------------|
| Red        | Е                | Yellow      | Red          | Red                    |
| Blue       | Green            | Red         | Red          | Green                  |
| Blue       | Yellow  17       | Green E     | Blue<br>E    | Green E                |
| Green E    | Blue             |             | Green E      |                        |
| Blue<br>E  | Red              | Yellow      |              | Red                    |
| Blue<br>81 |                  | Yellow<br>E | Blue<br>Blue | Green<br><sub>35</sub> |

| Blue | Yellow | Red | Blue | Green |
|------|--------|-----|------|-------|
| E    | E      | E   | E    | E     |
| 36   | 37     | 38  | 39   | 40    |

- 57. Number of errors: errors\_str3
- 58. Number correct: correct\_str3
- 59. Time to complete test (maximum 3 minutes recorded as seconds): timecomp\_str3
- 60. Stroop Subtest 3 given? given\_str3
- 1 Yes
- 0 No
- -6 Not on form
- 61. If "no," give reason: reason\_str3
- -9
- 1 Vision
- 2 Hearing 3 Uncooperative/refused
- 4 Can't Read
- 5 Other (specify)
- -6 Not on form

Other (Specify) other\_str3

#### **RAVLT Long-Delay Recall**

It is very important that you keep track of the time between the end of the Short-Delay Free Recall and the beginning of the Long-Delay Free Recall. The total delay should be no less than 15 minutes.

62. Time noted at end of short-delay free recall (time written) timetot\_long

(hh:mm) timeampm\_long

-6 Not on form AM/PM

63. Time now tnow\_long (hh:mm) tnowampm\_long

-9

AM AM PM PM

PM PM

-6 Not on form

AM/PM

#### **Long Delay Recall**

Correct Response

drum\_long Drum 

curt\_long Curtain

bell\_long Bell

Coffee

scho\_long

coff\_long

School 

pare\_long **Parent** 

moon\_long Moon 

gard\_long Garden 

hat\_long Hat 

"I read two different lists of words to you earlier: a first list that I read several times, and a second list that I read once. Tell me all the words you can that were from the first list. Don't tell me words from the second list, just the first list. Go ahead."

Maximum time = 1 minute. Check off words as they are recalled.

If the participant is silent for 10-15 seconds ask "anything else" or, if the participant signals that he/she is finished, ask "anything else?"

64. RAVLT Delay given?

comp\_long

1 Yes

0 No

-6 Not on form

65. If "no," give reason:

# reason long -9 1 Vision 2 Hearing 3 Not cooperative/refused 4 Other (specify) -6 Not on form specify other\_long

```
farm_long
Farmer
           nose_long
Nose
           turk_long
Turkey
           colo_long
Color
           hous_long
House
           rive_long
River
           Score (# correct)
66. (0-15) =
total_long
```

Source Form Language: lang
-9 1 English
2 Spanish
Submit