| Participant ID pid | Initials of Examiner compby | Visit Code vc |
| :--- | :--- | :--- |
|  | Date of Visit vis mth | $/ \underline{\text { vis day }} \quad / \underline{\text { vis yr }}$ |

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

Trial 1

| "I am going to read a list of words. Listen |  |
| :--- | :---: |
| carefully, for when I stop you are to say back |  |
| as many words as you can remember. It |  |
| doesn't matter in what order you repeat them. | Drum |
| Just try to remember as many as you can." | Curtain |
|  | Bell |
|  | Coffee |
|  | School |
| 1. Trial complete? | Parent |
| a1comp ravl | Moon |
| -9 | Garden |
| 1 Yes | Hat |
| 0 No |  |
| -6 Not on form | Farmer |
| 2. If "no," give reason: | Nose |
| a1reason ravl | Turkey |
| -9 Vision | Color |
| 2 Hearing |  |
| 3 Not cooperative/refused | House |
| 4 Other (specify) | Not on form |
| specify | River |
| a1other ravl |  |

Trial 1

|  | Correct Response drum1 rav |
| :---: | :---: |
| Drum | $\square$ |
|  | curt1 rav |
| Curtain | $\square$ |
|  | bell 1 rav |
|  | $\square$ |
| Coffee | coff1 rav |
|  | $\square$ |
| School | schoo rav |
|  | - |
| Parent | pare1 ravl |
|  | - |
|  | moon1 rav |
| Moon | $\square$ |
| Garden | gard1 rav |
|  | $\square$ |
| Hat | hat1 ravl |
|  | $\square$ |
| Farmer | farm1 rav |
|  | $\square$ |
| Nose | nose1 rav |
|  | $\square$ |
| Turkey | turk1 rav |
|  | $\square$ |
| Color | colo1 ravl |
|  | $\square$ |
| House | hous1 rav |
|  | $\square$ |
| River | rive1 ravl |
|  | $\square$ |

Score (\# correct)
3. $(0-15)=$
a1total ravl

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 rav
curt2 ravl
bell2 rav
Coffee $\frac{\text { coff2 rav }}{\square}$
4. Trial complete?
a2comp ravl
-9
1 Yes
0 No
-6 Not on form
5. If "no," give reason:
a2reason ravl


2 Hearing
3 Not cooperative/refused
4 Other (specify)
-6 Not on form
specify
a2other ravl

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

Trial 3, 4, 5


Trial 3
Correct
Response

| Drum | drum3 ravi |
| :---: | :---: |
|  | $\square$ |
| Curtain | curt3 rav |
|  | $\square$ |
| Bell | bell3 ravl |
|  | $\square$ |
| Coffee | coff3 rav |
|  | $\square$ |
| School | scho3 ravl |
|  | $\square$ |
| Parent | pare3 ravl |
|  | $\square$ |
| Moon | moon3 rav |
|  | $\square$ |
| Garden | gard3 ravl |
|  | $\square$ |
| Hat | hat3 ravl |
|  | - |
|  | farm3 ravl |
| Farmer |  |

Trial 4
Correct
Response
drum4 ravl
Drum

Curtain

Bell

Coffee

School
$\begin{array}{ll}\text { Parent } & \frac{\text { pare4 ravl }}{\square} \\ \text { Moon } & \frac{\text { moon4 ravl }}{\square} \\ \text { Garden } & \frac{\text { gard4 ravl }}{\square} \\ \text { Hat } & \frac{\text { hat4 ravl }}{\square} \\ \text { Farmer } & \frac{\text { farm4 rav }}{\square}\end{array}$

Trial 5


| Nose | Nose | nose4 rav | Nose | $\frac{\text { nose5 ravl }}{\square}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\text { Turkey } \frac{\text { turk3 ravl }}{n}$ | Turkey | turk4 ravl | Turkey | turk5 ravl |
| $\text { Color } \frac{\text { colo3 ravl }}{\square}$ | Color | colo4 ravl | Color | $\frac{\text { colo5 ravl }}{\square}$ |
| House hous3 ravl | House | $\frac{\text { hous4 ravl }}{\square}$ | House | hous5 ravl |
| River $\frac{\text { rive3 ravl }}{\square}$ | River | rive4 ravl | River | rive5 rav |
| Score (\# correct) | Score (\# correct) |  | Score (\# correct) |  |
| $\text { 7. }(0-15)=$ <br> a3total ravl | 10. (0-1 <br> a4total |  | 13. $(0-15)=$ |  |
| 8. Trial complete? | 11. Trial complete? |  | 14. Trial complete? |  |
| a3comp ravl | a4comp ravl |  | a5comp ravl |  |
| -9 | -9 |  | -9 |  |
| 1 Yes | 1 Yes |  | 1 Yes |  |
| 0 No | 0 No |  | 0 No |  |
| -6 Not on form | -6 Not on form |  | -6 Not on form |  |
| 9. If "no," give reason: | 12. If "no," give reason: |  | 15. If "no," give reason: |  |
| a3reason ravl | a4reason rav |  | a5reason rav |  |
| -9 | -9 |  | -9 |  |
| 1 Vision | 1 Vision |  | 1 Vision |  |
| 2 Hearing | 2 Hearing |  | 2 Hearing |  |
| 3 Not cooperative | 3 Not cooperative |  | 3 Not cooperative |  |
| 4 Other (specify) | 4 Other (specify) |  | 4 Other (specify) |  |
| -6 Not on form | -6 Not on form |  | -6 Not on form |  |
| specify a3other ravl | specify a4other_ravl |  | specify a5other rav |  |

## 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, do not 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

List B
"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."

|  | Correct <br> Response <br> Desk |
| :---: | :---: |
| Ranger | Desk |

Bird

| 16. Trial complete? <br> b1comp ravl | Shoe <br> Stove | Ranger | rang ravl |
| :---: | :---: | :---: | :---: |
| -9 |  |  | bird ravl |
|  | Mountain | Bird | - |
| -6 Not on form | Glasses |  | shoe ravl |
| 17. If "no," give reason: | Towel | Shoe | $\square$ |
| $\frac{\text { b1reason ravl }}{-9}$ | Cloud | Stove | stov ravl |
| $\begin{array}{ll} 1 & \text { Vision } \\ 2 & \text { Hearing } \end{array}$ | Boat |  | moun rav |
| 3 Not cooperative/refused 4 Other (specify) | Lamb | Mountain | - |
| -6 Not on form specify b1other ravl | $\begin{gathered} \text { Gun } \\ \text { Pencil } \end{gathered}$ | Glasses | $\frac{\text { glas ravl }}{\square}$ |
|  | Church Fish | Towel | towe ravl <br> clou rav |
|  |  | Cloud | $\square$ |
|  | "Okay, tell me as many | Boat | boat ravl |
|  | words as you can." | Lamb | $\frac{\square}{\square}$ |
|  |  | Gun | gun rav |
|  |  | Pencil | penc rav |
|  |  | Church | chur ravl |
|  |  | Fish | fish rav |
|  |  | Score (\# | orrect) |
|  |  | 18. (0-15) <br> b1total rav |  |

## Rey AVLT Short-Delay Free Recall

"Now I would like you to tell me all the words 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."
19. Trial complete?
a6comp rav
-9
1 Yes
0 No
-6 Not on form

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

| Trial 6 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| "Now I would like you to tell me all the words 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." | Drum | Correct Response | 22. Look at watch and note time at completion of Trial \#6 |  |
|  |  | $\frac{\text { drum6 ravl }}{\square}$ | timetot rav timeampm rav | (hh:mm) |
|  |  | curt6 ravl |  |  |
|  | Curtain | $\square$ | AM AM |  |
|  |  | bell6 ravl | -6 Not on form |  |
|  | Bell |  | AM/PM |  |
|  | Coffee | coff6 ravi |  |  |
| 19. Trial complete? | Coffee | $\square$ |  |  |
| a6comp rav |  | scho6 ravl |  |  |
| -9 | School | 回 |  |  |
| 1 Yes |  |  |  |  |
| 0 No |  |  |  |  |


| 20. If "no," give reason: | Parent | pare6 ravl <br> $\square$ |
| :--- | :--- | :---: |
| a6reason ravl <br> -9 <br> 1 Vision <br> 2 Hearing <br> 3 Not cooperative/refused <br> 4 Other (specify) <br> -6 Not on form <br> specify <br> a6other ravl | Moon | $\frac{\text { moon6 ravl }}{\square}$ |

## 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?


## 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.
shoes1 mse3
a. shoes
b. brown
c. modesty

1 Correct
2 Error/Refused
3 Not attempted/disabled
6 Not on form
brown1 mse3
-9
1 Correct
Error/Refused
Not attempted/disabled
6 Not on form
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: numpres mse3

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

|  | countto5 mse3 |
| :--- | :--- |
|  | -9 |
|  |  |
|  |  |
|  |  |
|  | Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |

b. Now I would like you to count backwards from $\mathbf{5}$ to $\mathbf{1}$ 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
-9
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 |
| :---: | :---: |
|  | -9 |
|  | 1 Spontaneous Recall |
| a. shoes | 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 |
|  | -9 |
|  | 1 Spontaneous Recall |
| b. brown | 2 Correct word/incorrect form or after "Something to wear" |
| b. brown | 3 After "Was it shirt, shoes or socks?" |
|  | 4 Unable to recall/refused |
|  | 5 Not attempted/disabled |
|  | -6 Not on form |
|  | modesty2 mse3 |
|  | -9 |
|  | 1 Spontaneous Recall |
| C. modesty | 2 Correct word/incorrect form or after "A good personal quality". |
|  | 3 After "Was it honesty, charity or modesty?" |
|  | 4 Unable to recall/refused |

## 5 Not attempted/disabled

-6 Not on form
28. a. What is today's date? today mse3
(mm/dd/yyyy)

> | todaycor mse3 |
| :--- |
| -9 |
| 1 |
| 2 |
| 2 |
| Corroct/Refused |
| 3 |
| -6 Not attempted/disabled |
| -6 | Not on form

Correct? 1 Correct
b. What is the day of the week? (If incorrect, record answer: dayweek mse3
)
daywkcor mse3
-9
Correct? 1 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
)
seascor mse3
-9
Correct? 1 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? 1 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
-9
Correct? 1 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
-9
Correct? 1 Correct
2 Error/Refused
3 Not attempted/disabled
-6 Not on form
d. Are we in a clinic, store or home? location mse3
-9
1 Correct
2 Error/Refused
3 Not attempted/disabled

- 6 Not on form

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.

| pencil_mse3 |  |
| :--- | :--- |
| -9 | Correct |
| 1 | Corror/Refused |
| 2 | Erot attempted/disabled |
| -6 | Not on form |
| watch_mse3 |  |
| -9 | Correct |
| 1 | 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 |
|  | chin mse3 |
|  | -9 |
| d. ... And this part? (chin) | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | shoulder mse3 |
|  | -9 |
| e. And this part of the body? (shoulder) | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | elbow mse3 |
|  | -9 |
| f. ... And this part? (elbow) | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | knuckle mse3 |
|  | -9 |
| g. ... And this part of the hand? (knuckle) | 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: Discontinue after 30 seconds. 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
(3) animal3 mse3
(2)
animal2_mse3
(4) animal4 mse3
(5) animal5 mse3
(6) animal6 mse3
(7) animal7 mse3
(9) animal9 mse3
(11) animal11 mse3
(13) $\xrightarrow{\text { animal13 mse3 }}$
(15) animal15 mse3
(17) animal17 mse3
(19) animal19 mse3
(21) animal21 mse3
(23) animal23 mse3
(8) animal8 mse3
(10)
(12) animal12 mse3
(14) animal14 mse3
(16) animal16 mse3
(18) animal18 mse3
(20) animal20 mse3
(22) $\xrightarrow{\text { animal22 mse3 }}$
(24) animal24 mse3
Total correct answers animtot mse3
32. Interviewer note: if the participant fails to give an answer that is complete, assign the appropriate answer. If the answer to $\mathbf{a}$. is not completely correct, coach the participant by saying ?An arm and a leg are both limbs or extremities?. Do not coach for answers $b \& c$.
a. In what way are an arm and a leg alike?
b. In what way are laughing and crying alike?
c. In what way are eating and sleeping alike?

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.?

| liketogo mse3 |  |
| :---: | :---: |
|  |  |
| 1 | Correct |
| 2 | 1 or 2 words missed |
| 3 | 3 or more words missed/refused |
| 4 | Not attempted/disabled |
|  | 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 |
| a. No ifs | 1 Correct |
| a. No ifs | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | ands mse3 |
|  | -9 |
| b. ands | 1 Correct |
| b. ands | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | orbuts mse3 |
|  | -9 |
| c. buts | 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.

[^0]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 maximum of 1 minute 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)
would mse3

|  | -9 |
| :---: | :---: |
| a. would | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | like mse3 |
|  | -9 |
| b. like | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | to mse3 |
|  | -9 |
| c. to | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | go mse3 |
|  | -9 |
| d. go | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | out mse3 |
|  | -9 |
| e. out | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
|  | handused mse3 |
|  | -9 |
| f. Note which hand the participant uses to write: | 1 Left |
|  | 2 Right |
|  | 3 Unknown |
|  | 4 Error/Refused |
|  | -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)

| a. Pentagon I | pent1 mse3 |
| :---: | :---: |
|  | -9 |
|  | 15 approximate equal sides |
|  | 25 sides, but longest: shortest is > 2;1 |
|  | 3 Nonpentagon enclosed figure |
|  | 42 or more lines, not an enclosure |
|  | 5 Less than 2 lines/ refused |
|  | 6 Not attempted/disabled |
|  | -6 Not on form |
| b. Pentagon II | pent2 mse3 |
|  | -9 |
|  | 15 approximate equal sides |
|  | 25 sides, but longest: shortest is > 2;1 |
|  | 3 Nonpentagon enclosed figure |
|  | 42 or more lines, not an enclosure |
|  | 5 Less than 2 lines/ refused |
|  | 6 Not attempted/disabled |
|  | -6 Not on form |
| c. Intersection | intersec mse3 |
|  | -9 |
|  | 1 4-corned enclosure |
|  | 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.

| a. takes paper in correct hand | corrhand mse3 |
| :---: | :---: |
|  | -9 |
|  | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
| b. folds paper in half | foldspap mse3 |
|  | -9 |
|  | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |
|  | -6 Not on form |
| c. hands paper back | handspap mse3 |
|  | -9 |
|  | 1 Correct |
|  | 2 Error/Refused |
|  | 3 Not attempted/disabled |

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 |
| :---: | :---: |
|  | -9 |
|  | 1 Spontaneous Recall |
| a. shoes | 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 |
|  | brown3 mse3 |
|  | -9 |
|  | 1 Spontaneous Recall |
| b. brown | 2 Correct word/incorrect form or after "A Color" |
|  | 3 After "Was it blue, black or brown?" |
|  | 4 Unable to recall/Refused |
|  | 5 Not attempted/disabled |
|  | -6 Not on form |
|  | modesty3 mse3 |
|  | -9 |
|  | 1 Spontaneous Recall |
| c. modesty | 2 Correct word/incorrect form or after "A good personal quality" |
| c. modesty | 3 After "Was it honesty, charity or modesty?" |
|  | 4 Unable to recall/Refused |
|  | 5 Not attempted/disabled |
|  | -6 Not on form |

40. Would you please tell me again where were you born? citborn mse3

City stborn mse3 State
locborn mse3
-9
Correct? 1 Matches
2 Does not match/refused
3 Not attempted/disabled
-6 Not on form

| specprob mse3 |  |
| :--- | :--- |
| -9 | Vision |
| 1 | Hearing |
| 2 Inablity to write due to injury/illness |  |
| 4 | Illiteracy/lack of education |
| 5 | Language |
| 6 | Other (specify) |
| -6 | Not on form |


|  | mse3imp mse3 |
| :---: | :---: |
| 42. Interviewer note: Have you observed any signs today of the participant's cognitive impairment? | ${ }^{-9} 1$ None (End) |
|  | 2 Unsure (End) |
|  | 3 Definite (Go to Q43) |
|  | $\begin{aligned} & \text { Possible (Go to } \\ & \mathrm{Q}^{\text {P43) }} \end{aligned}$ |

43. Judgement from Question 42 is based on:

| a. Hygiene / Personal Care | hygiene mse3 |
| :---: | :---: |
|  | -9 |
|  | 1 Yes |
|  | 2 No |
|  | 3 Unsure |
|  | -6 Not on form |
|  | incnspch mse3 |
| b. Inconsistencies in speech or actions | -9 |
|  | 1 Yes |
|  | 2 No |
|  | 3 Unsure |
|  | -6 Not on form |
|  | memprob mse3 |
|  | -9 |
| c. Memory problems / lapses | 1 Yes |
|  | 2 No |
|  | 3 Unsure |
|  | -6 Not on form |
|  | probdirs mse3 |
|  | -9 |
| d. Problems following directions | 1 Yes |
|  | 2 No |
|  | 3 Unsure |
|  | -6 Not on form |
|  | emoresp mse3 |
|  | -9 |
| e. Emotional responses | 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 $\mathbf{2}$ has this mark (point to symbol). So, I put it in this empty square, like this." (Write in the symbol.) "This is a $\mathbf{1}$; the $\mathbf{1}$ 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
Other (specify) other digt
46. Total score (number of boxes completed correctly): ( $0-133$ ) = total digt

## STROOP SUBTEST 1

## Administration:

## 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
2. 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

| Blue E <br> 1 | $\left.\quad \begin{array}{c}\text { Blue } \\ \mathrm{E}\end{array}\right)$ 2 |  Yellow <br> E <br> 3  |  Green <br> 4 E |  Red <br> 5  |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \quad \text { Blue } \\ 6 \end{gathered}$ | $\begin{array}{\|cc}  & \text { Yellow } \\ 7 & \mathrm{E} \end{array}$ | $\begin{array}{\|cc}  & \text { Yellow } \\ 8 & E \end{array}$ | $\begin{array}{cc}  & \text { Green } \\ 9 & \mathrm{E} \end{array}$ | ${ }_{10} \begin{gathered} \text { Yellow } \\ 10 \end{gathered}$ |
| $\begin{array}{cc}  & \text { Red } \\ 11 & \mathrm{E} \end{array}$ | $\begin{array}{\|c}  \\ \\ 12 \end{array}$ | $\begin{array}{\|cc}  & \text { Green } \\ 13 & \mathrm{E} \end{array}$ | $\begin{array}{\|c}  \\ \\ \hline \end{array}$ | $\begin{array}{\|cc}  & \text { Green } \\ 15 & \mathrm{E} \end{array}$ |
| $16 \stackrel{\text { Red }}{\mathrm{E}}$ | 范 | ${ } \quad \begin{gathered} \text { Blue } \\ 18 \end{gathered}$ | ${ }^{\frac{\text { Green }}{}}$ | $\begin{array}{cc}  & \text { Red } \\ 20 & \mathrm{E} \end{array}$ |
| $\begin{gathered} \text { Yellow } \\ 21 \end{gathered}$ | $\begin{array}{\|cc}  & \text { Green } \\ 22 & \mathrm{E} \end{array}$ | $\begin{gathered} \\ 23 \end{gathered}$ | $\begin{gathered} \\ \hline \end{gathered}$ | $$ |
| $\begin{array}{cc}  & \text { Red } \\ 26 & \mathrm{E} \end{array}$ | $27 \quad$Red <br> E | $\begin{array}{\|cc}  & \begin{array}{c} \text { Green } \\ \\ 28 \end{array} \\ \hline \end{array}$ | $$ | $\begin{array}{\|cc}  & \text { Red } \\ 30 & \mathrm{E} \end{array}$ |
| $\begin{array}{cc} \hline & \begin{array}{c} \text { Blue } \\ \\ 31 \end{array} \end{array}$ | $\begin{array}{\|cc\|} \hline & \begin{array}{c} \text { Yellow } \\ \\ 32 \end{array} \\ \hline \end{array}$ | $\begin{array}{\|c}  \\ \hline \end{array}$ | $\begin{array}{\|c}  \\ \hline \end{array}$ | $\begin{array}{\|cc\|} \hline & \text { Yellow } \\ 35 & E \end{array}$ |
| $\begin{array}{\|cc}  & \text { Green } \\ & \mathrm{E} \\ 36 & \end{array}$ | $\begin{array}{\|c}  \\ \hline \end{array}$ | $\begin{array}{\|c}  \\ \\ \hline \end{array}$ | $\begin{array}{\|cc}  & \text { Green } \\ 39 & E \end{array}$ | $\begin{array}{\|cc}  & \text { Red } \\ & \text { E } \end{array}$ |

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
-9
1 Yes
0 No
6 Not on form
51. If "no," give reason: reason str1
-9
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 $\mathbf{2} \mathbf{=} \mathbf{2}$ minutes ( $\mathbf{1 2 0}$ 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.
Test:
"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.

| $\begin{array}{\|cc}  & \text { Green } \\ 1 & E \end{array}$ | $\begin{array}{\|cc}  & \text { Red } \\ 2 & E \end{array}$ | $\begin{array}{\|cc}  & \text { Yellow } \\ 3 & E \end{array}$ | $\begin{array}{\|cc}  & \text { Yellow } \\ 4 & E \end{array}$ | Red E |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|c}  \\ \\ 6 \end{array} \quad \begin{gathered} \text { Blue } \\ \hline \end{gathered}$ | $\begin{array}{\|cc}  & \text { Green } \\ & E \end{array}$ | $\begin{array}{\|c}  \\ \\ 8 \end{array}$ | $9 \quad$Blue <br> E | $\left.\right\|_{10} \begin{gathered} \text { Yellow } \\ E \end{gathered}$ |
| $\begin{array}{\|cc\|} \hline & \text { Yellow } \\ 11 & \text { E } \end{array}$ | $\begin{array}{ll}  & \text { Red } \\ 12 & \mathrm{E} \end{array}$ | $\begin{array}{\|cc}  & \begin{array}{c} \text { Blue } \\ 13 \end{array} \\ \hline \end{array}$ | $\begin{array}{\|c}  \\ \hline \end{array}$ | $\begin{array}{\|cc}  & \begin{array}{c} \text { Blue } \\ 15 \end{array} \\ \hline \end{array}$ |
| ${ } \quad \begin{gathered} \text { Green } \\ 16 \end{gathered}$ | $\begin{array}{cc}  & \text { Red } \\ 17 & \text { E } \end{array}$ | ${ } \quad \begin{gathered} \text { Blue } \\ 18 \end{gathered}$ | $\begin{array}{lc}  & \text { Green } \\ 19 & \text { E } \end{array}$ | ${ } \quad \begin{array}{cc}  & \text { Red } \\ 20 & E \end{array}$ |
| $\begin{array}{\|c}  \\ \\ 21 \end{array}$ | $\begin{array}{\|cc\|}  & \begin{array}{c} \text { Yellow } \\ 22 \end{array} \\ \hline \end{array}$ | $\begin{array}{\|cc}  & \begin{array}{c} \text { Green } \\ E \\ 23 \end{array} \end{array}$ | ${ }_{24} \begin{gathered} \text { Blue } \\ E \end{gathered}$ | ${ } \quad \begin{array}{cc} \text { Red } \\ 25 & E \end{array}$ |
| $\begin{array}{\|cc\|} \hline & \text { Yellow } \\ 26 & E \end{array}$ | $\begin{array}{\|cc}  & \begin{array}{c} \text { Green } \\ E \end{array} \\ 27 & \end{array}$ | $\begin{array}{\|cc}  & \text { Red } \\ 28 & E \end{array}$ | $$ | $\begin{array}{\|cc\|} \hline & \text { Yellow } \\ 30 & E \end{array}$ |
| $\begin{array}{\|cc}  & \begin{array}{c} \text { Blue } \\ \\ 31 \end{array} \\ \hline \end{array}$ | $\begin{array}{\|cc\|}  & \begin{array}{c} \text { Yellow } \\ 32 \end{array} \\ \hline \end{array}$ | ${ } \quad \begin{gathered} \text { Blue } \\ 33 \end{gathered}$ | ${ }_{34} \begin{gathered} \text { Blue } \\ \text { E } \end{gathered}$ | $\begin{array}{\|ll}  & \text { Yellow } \\ 35 & E \end{array}$ |
| $\begin{array}{\|c}  \\ \hline \end{array}$ | $\begin{array}{\|c}  \\ \hline \end{array}$ | $\begin{array}{\|cc}  & \text { Red } \\ 38 & E \end{array}$ | $\begin{array}{\|cc}  & \begin{array}{c} \text { Green } \\ \\ 39 \end{array} \\ \hline \end{array}$ | $\begin{array}{\|cc}  & \text { Red } \\ 40 & E \end{array}$ |

52. Number of errors: errors str2
53. Number correct: correct str2
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
0 No
-6 Not on form
56. If "no," give reason: reason str2
-9
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 = $\mathbf{3}$ minutes ( $\mathbf{1 8 0}$ 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 please 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.

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | $\underset{{ }_{32}}{\text { Green }}$ | $\underset{\mathrm{E}}{\text { Yellow }}$ | Blue | Green |


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
-9
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 -9
AM AM
PM PM
-6 Not on form
AM/PM
63. Time now tnow long
(hh:mm) tnowampm long
-9
AM AM
PM PM
-6 Not on form
AM/PM
"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?"

## Long Delay Recall

Maximum time = $\mathbf{1}$ 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?"

|  | Correct <br> Response |
| :--- | :--- |
| Drum | $\frac{\text { drum long }}{\square}$ |
| Curtain | $\frac{\text { curt long }}{\square}$ |
| Bell | $\frac{\text { bell long }}{\square}$ |
| Coffee | $\frac{\text { coff long }}{\square}$ |
| School | $\frac{\text { scho long }}{\square}$ |
| Parent | $\frac{\text { pare long }}{\square}$ |
| Moon | $\frac{\text { moon long }}{\square}$ |
| Garden | $\frac{\text { gard long }}{\square}$ |
| Hat | $\frac{\text { hat long }}{\square}$ |


| reason long | Farmer | farm long |
| :---: | :---: | :---: |
| 1 Vision | Farmer | $\square$ |
| 2 Hearing |  | nose long |
| 3 Not cooperative/refused | Nose |  |
| 4 Other (specify) |  | $\square$ |
| -6 Not on form |  | I |
| specify | Turkey |  |
| other long |  |  |
|  |  | colo long |
|  | Color | 回 |
|  |  | hous long |
|  | House | - |
|  |  | rive long |
|  | River | $\square$ |
|  | Score (\# | correct) |
|  | 66. (0-15) total long | 5) = |


[^0]:    Hold up the "Close you eyes" card and say: "Please do this" clseyes mse3 -9
    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

