



## Neurocognitive Test Battery Examiner's Packet

ID NUMBER:

DATE: 11/19/2019  
VERSION 6.1

### ADMINISTRATIVE INFORMATION

0a. Completion Date:

<input type="text"/>	<input type="text"/>	/	<input type="text"/>	<input type="text"/>	/	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Month			Day			Year			

0b. Staff ID:

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### Materials Needed to Complete the Battery:

Card with Pentagons and "Close your eyes" card (MMSE) – 5x8	Incidental Learning Template
MMSE Scoring Key for Spelling WORLD Backwards	"Do Not Disturb" sign for the door during the exam
Black Pen	Audio Recorder
Pencil	Stop Watch
Wrist Watch	Clipboard
1 Sheet of Paper	
Set of 10 cards for the Delayed Word Recall – 5x8	
Digit Symbol Substitution Form	
Digit Symbol Substitution Scoring Transparency	

### Neurocognitive Test Battery Packet Contents

Block A	
Ensuring Speech Understanding (ESU)	
Mini Mental Status Exam (MME)	
Delayed Word Recall (DWR)	
Digit Symbol Substitution (DSS)	
Incidental Learning (IL)	
Word Fluency (FAS)	
Animal Naming	
Neurocognitive Summary Form (NCS)	



# Ensuring Speech Understanding

**Materials: Black pen**

**Instructions and script:**

**“Listen carefully because I am going to read you several sentences. After I read each sentence, try to repeat out loud as much of the sentence as possible. The first sentence is...”**

Read each sentence slowly (~2-3 seconds) articulating clearly with normal inflections. No repetitions are allowed. Circle and sum the bolded words that are repeated correctly.

Trial 1		Score
<p>If the total score for Trial 1 <math>\geq 13</math>, stop ESU and proceed with the neurocognitive testing per protocol.</p> <p>If the total score for Trial 1 is <math>\leq 12</math>, proceed with Trial 2 below using a slightly louder tone of voice.</p>	1. The <b>player</b> <b>lost</b> the <b>shoe</b> .	
	2. The <b>fire</b> is <b>very</b> <b>hot</b> .	
	3. A <b>lady</b> <b>wore</b> a <b>coat</b> .	
	4. The <b>kitchen</b> <b>window</b> was <b>clean</b> .	
	5. <b>Strawberry</b> <b>jam</b> is <b>sweet</b> .	
	<b>TOTAL SCORE</b>	
Trial 2		Score
<p>If the total score for Trial 2 <math>\geq 13</math>, stop ESU and proceed with the neurocognitive testing per protocol.</p> <p>If the total score for Trial 2 is <math>\leq 12</math>, proceed with neurocognitive testing using a slightly louder tone of voice and supplement verbal instructions with written prompts where appropriate.</p>	1. The <b>book</b> <b>tells</b> a <b>story</b> .	
	2. The <b>team</b> is <b>playing</b> <b>well</b> .	
	3. A <b>boy</b> <b>did</b> a <b>handstand</b> .	
	4. <b>Mother</b> <b>opened</b> the <b>drawer</b> .	
	5. The <b>fish</b> <b>swam</b> in a <b>pond</b> .	
	<b>TOTAL SCORE</b>	



## MINI MENTAL STATE EXAM

FORM CODE:

M

M

E

**Materials:** Black pen, pencil, wrist watch, one sheet of paper, pentagon drawing and “Close your eyes” card

### Scoring note:

Items which are not attempted due to a physical disability (e.g., vision or hearing loss) should be marked as “Not Attempted.”

Items which are not administered due to cognitive impairment should be marked as “Incorrect.”

**“In this next part of the exam I will ask you some questions and give you some short tasks that will require memory and concentration. Some may be a little bit more difficult than others.”**

	CORRECT	INCORRECT/ DON'T KNOW	NOT ATTEMPTED/ REFUSED
0c. What is your full name?	<input type="text"/> _1	<input type="text"/> _0	<input type="text"/> _0
0d. How old are you?	<input type="text"/> _1	<input type="text"/> _0	<input type="text"/> _0
0e. What is the full date of your birth?	<input type="text"/> _1	<input type="text"/> _0	<input type="text"/> _0
0f. Without looking at a clock or watch, what is the approximate time of day? Score as correct if within one hour of the actual time.	<input type="text"/> _1	<input type="text"/> _0	<input type="text"/> _0
1. What year is this?	<input type="text"/> _1	<input type="text"/> _0	<input type="text"/> _0
2. What season is this? <div>Winter: Dec, Jan, Feb, March Spring: March, April, May, June Summer: June, July, August, Sept Fall/Autumn: Sept, Oct, Nov, Dec</div>	<input type="text"/> _1	<input type="text"/> _0	<input type="text"/> _0

	CORRECT	INCORRECT/ DON'T KNOW	NOT ATTEMPTED/ REFUSED
<b>3. What month is this?</b> <i>Score as correct if within one day of the actual month.</i>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<b>4. What is the day of the week?</b> <i>If the participant gives the date instead of the day, give credit for date and say, "Good, and what day of the week is it?"</i>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<b>5. What is the date?</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<b>6. What state are we in?</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<b>7. What city is this?</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<b>8. What county do you live in?</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<b>9. What is the name of this place where we are right now?</b> <i>Prompt for more detail if a generic or vague response is given.</i>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<b>10. Are we on the ground floor or a higher floor of this building?</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0

<p><b>"I am going to say three words. After I have said all three words, I want you to repeat them all back to me. Ready? Repeat these words after me: blue - pear - sofa. Please try to remember what they are, because I am going to ask you to name them again in a few minutes."</b></p> <p><i>If participant is unable to recall all three words, repeat up to 2 additional trials until he/she correctly names all three objects, but score only the first trial.</i></p>			
	CORRECT	INCORRECT/ DON'T KNOW	NOT ATTEMPTED/ REFUSED
<b>11. Blue</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<b>12. Pear</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
<b>13. Sofa</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0

**How do you spell the word “World?”** (If unable to spell: **It’s spelled W-O-R-L-D**). Coach only once and then continue with the second part of the question, even if the performance in spelling forward is not perfect.

**How would you spell it backwards?**

Record the order of the letters given. Refer to scoring template to assign credit (e.g., DROW = 4 correct).  
Allow additional trials if requested.

**CORRECT**

**INCORRECT/  
DON’T KNOW**

**NOT  
ATTEMPTED/  
REFUSED**

Record response: \_\_\_\_\_

14. D

☐ 1

☐ 0

☐ 0

15. L

☐ 1

☐ 0

☐ 0

16. R

☐ 1

☐ 0

☐ 0

17. O

☐ 1

☐ 0

☐ 0

18. W

☐ 1

☐ 0

☐ 0

**CORRECT**

**INCORRECT/  
DON’T KNOW**

**NOT  
ATTEMPTED/  
REFUSED**

19. Point to a pencil. Ask, “**What is this called?**”

☐ 1

☐ 0

☐ 0

20. Point to a watch. Ask, “**What is this called?**”

☐ 1

☐ 0

☐ 0

21. Repeat this phrase after me: “**No ifs, ands, or buts.**”

☐ 1

☐ 0

☐ 0

22. Please write any complete sentence you can think of on this piece of paper.

☐ 1

☐ 0

☐ 0

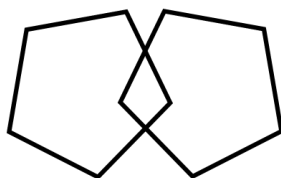
Have the participant write a sentence of his/her choice. Ignore grammar, spelling and punctuation. *If needed, prompt by saying, “Write a sentence about the weather.”* Note dominant hand used.

**CORRECT**

**INCORRECT/  
DON’T KNOW**

**NOT  
ATTEMPTED/  
REFUSED**

23. Here is a drawing. Please copy the drawing on this piece of paper.



☐ 1

☐ 0

☐ 0

Hand the participant a piece of paper and the pentagons card. Orient the card as shown. Allow 1 minute for copying. Score 1 if all sides and angles are preserved and two five-sided figures intersect to form a four-sided figure. Ignore tremor, rotation, minor gaps, and self-correction. Note dominant hand used.

Now, what were those 3 words I asked you to remember? Provide no hints.	CORRECT	INCORRECT/ DON'T KNOW	NOT ATTEMPTED/ REFUSED
24. Blue	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
25. Pear	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
26. Sofa	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0

**Listen carefully because I'm going to ask you to do something.** Hold up a piece of paper in plain view of the participant but out of reach. **Take this paper in your <non-dominant > hand** (pause), **fold it in half** (pause), **and put it on the floor.** Substitute, “**Hand it back to me,**” if participant is disabled or bed- bound. After saying the entire command, hold the paper within reach of the participant (but not in favor of either hand). Do not repeat any individual part of the command. One repetition is permitted at the participant's request, but the entire command must be repeated verbatim. *If the participant reaches for the paper immediately after hearing the first portion of the command, move your hand away so that the paper is out of reach and continue to state the next two parts of the command without interruption.*

	CORRECT	INCORRECT/ DON'T KNOW	NOT ATTEMPTED/ REFUSED
27. Takes paper in correct hand	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
28. Folds paper in half	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0
29. Places paper on floor	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0

<p><b>Please read this sentence out loud and then do what it says.</b></p> <p>Display sentence command “CLOSE YOUR EYES.”</p> <p>Score 1 point only if the participant closes his/her eyes. As soon as the participant closes his/her eyes say, “Open.”</p>	CORRECT	INCORRECT/ DON'T KNOW	NOT ATTEMPTED/ REFUSED
30. Closes eyes	<input type="checkbox"/> 1	<input type="checkbox"/> 0	<input type="checkbox"/> 0

31. MMSE TOTAL SCORE (CDART will calculate the score.)	
32. How many questions were not attempted due to EITHER refusal or physical disability? (Consider only Q1 to Q30. If all Q1-Q30 are answered, enter 0.)	_____

## DELAYED WORD RECALL — EXPOSURE

Materials: Black pen, word cards, stopwatch

**Instructions and script:** “I am going to show you some words that I’d like you to try to remember. I will read each word first. I would like you to repeat the word I say out loud and then use it in a sentence — this will help you remember the words. Do not use words from a previous card in your sentence. The first word is...” Present the first card, etc.

Check each word in column A after the participant has read it aloud and used it in a sentence. *If the participant has trouble forming a sentence or offers associations, the examiner may offer suggestions. Encourage the participant to form sentences that convey the meaning of the word, e.g., do not allow sentences like, “The chimney is nice,” but encourage statements like, “The smoke went up the chimney.”* Sentences linking multiple words from the word list are not allowed. *If this occurs say, “Please use only one word from the cards in each sentence.” Do not correct for homophone (sentence with flour vs. flower) or plurals. For other incorrect suffixes, (e.g., “ing”, etc.) politely remind the participant of the correct word.*

After column A is completed say, “To help you remember, we’ll go through the words again. Just like before, I will read each word. Then I would like you to repeat the word and use it in a sentence. You may use the same sentence you used the first time or make up a different one. The first word is...” Again present each card to the participant.

Check each word in column B after the participant has read it aloud and used it in a sentence the second time.

Words	A) Check after sentence	B) Check after sentence
Chimney	<input type="checkbox"/>	<input type="checkbox"/>
Salt	<input type="checkbox"/>	<input type="checkbox"/>
Harp	<input type="checkbox"/>	<input type="checkbox"/>
Button	<input type="checkbox"/>	<input type="checkbox"/>
Meadow	<input type="checkbox"/>	<input type="checkbox"/>
Train	<input type="checkbox"/>	<input type="checkbox"/>
Flower	<input type="checkbox"/>	<input type="checkbox"/>
Finger	<input type="checkbox"/>	<input type="checkbox"/>
Rug	<input type="checkbox"/>	<input type="checkbox"/>
Book	<input type="checkbox"/>	<input type="checkbox"/>



# DIGIT SYMBOL SUBSTITUTION TASK

Score: \_\_\_\_\_

**Materials:** Black pen, Digit Symbol form, stopwatch

**Instructions and Script:** Place Digit-Symbol form in front of the participant.

**“This is the digit-symbol task. Look at these boxes across the top of the page. On the top of each box are numbers from one through nine. On the bottom of each box there is a special mark. Each number has its own mark.”**

Point to 1 and its mark, then to 2 and its mark.

**“Down here are boxes with numbers in the top part, but the bottom part is empty.”** Point to the four rows. **“I want you to put the correct mark in each box like this.”**

**“Here is a 2; the 2 has this mark.”** Point to the first sample item, then to the mark below the 2 in the key. **“So I put it in this box, like this.”** Write in the symbol.

**“Here is a 1; the 1 has this mark.”** Point to the second sample item, then to the mark below the 1 in the key. **“So I put it in this box.”** Write in the symbol.

**“Here is a 3; the 3 has this mark.”** Point to the third sample item, then to the mark below the 3 in the key. **“So I put it in this box.”** Write in the symbol.

**“Now, just for practice, you fill in all the boxes up to this heavy line.”**

*If the participant makes an error on a sample item, correct the error immediately and review the use of the key. Continue to help (if necessary) until the seven sample items have been filled in correctly. Do not proceed with the test until the participant clearly understands the task.*

Look to see if a left-handed participant blocks the key when filling in the marks. If so, fold a separate template in half, exposing only the key, for the participant to use.

**“Yes, now you know how to do them.”**

**“When I tell you to begin, start here,”** point to the first test item **“and fill in as many boxes as you can, one after the other, without skipping any. Work as quickly as you can. When you finish one line,”** sweep finger across the first row, **“go on to the next one,”** sweep finger across the second row. **“Keep working until I tell you to stop and remember to work as quickly as you can.”**

**“Ready? Go ahead.”** Begin timing. At the end of 90 seconds, say, **“Stop. That’s good, thank you.”**  
Examiner should be vigilant that timing is precise.

*If the participant skips an item or starts doing only one type (e.g., only the 1’s), say, “Do them in order. Don’t skip any.” Point to the first item skipped and say, “Do this one next.” Do not stop timing. Credit is not given for items completed out of sequence (e.g., doing all the 1’s). Credit is given for skipped items that are subsequently completed after being pointed out.*

*Do not intervene if the participant fills in a wrong symbol, but if the participant has clearly lost focus as to what to do (e.g., starts filling in something other than symbols), you may give the following reminder:*  
**“Remember, you are to fill in the mark that goes below each number, as indicated in the key up above.”**

*If the participant pauses at the end of a row or stops working, encourage him/her to continue say, “Good, keep going.” Point to the beginning of the next row, if necessary.*

Using the DSST transparency, count the number of correctly completed blocks and record the score on the summary form (the seven sample items are not included in the total score).

## DELAYED WORD RECALL

Materials: Black pen

**Instructions and script:**

A few minutes ago, you read and made a sentence with several words that were on those cards. Please tell me all of the words you can remember in any order. Ready? Begin.

Allow 60 seconds. After the participant's response (or after a pause of 10 seconds), provide one prompt for more words say, **“Can you think of any more words?”** Credit is given for plurals.

Score 1 point for each word recalled.

Words	Check all words recalled
Chimney	<input type="checkbox"/>
Salt	<input type="checkbox"/>
Harp	<input type="checkbox"/>
Button	<input type="checkbox"/>
Meadow	<input type="checkbox"/>
Train	<input type="checkbox"/>
Flower	<input type="checkbox"/>
Finger	<input type="checkbox"/>
Rug	<input type="checkbox"/>
Book	<input type="checkbox"/>
TOTAL	_____

# INCIDENTAL LEARNING

**Materials:** Black pen, pencil, IL template, stopwatch

**Instructions and script:** Place IL template in front of the participant.

PART A

“Now I’d like you to write down all of the symbols you can remember (point to the bottom row of the IL template), in any order, from the task you did a moment ago. Ready? Go ahead.”

Allow 60 seconds.

PART B

“Now I’d like you to fill in the numbers that you think go with each symbol (point to the top row of the IL template). Ready? Go ahead.”

Allow 60 seconds.

<b>1. TOTAL SYMBOLS</b> (regardless of pairing)	<div></div> Max = 9
<b>2. TOTAL DIGIT-SYMBOL PAIRS</b> ( number of correct symbols correctly paired with corresponding numbers)	<div></div> Max = 9
Scoring note: The total # of digit pairs should not exceed the total # of symbols.	

# WORD FLUENCY TASK

**Materials:** Black pen, stopwatch

**Instructions and script:** “On this next task, I will say a letter. Then I want you to tell me as many different words as you can think of, as fast as you can, that begin with that letter.

Leave out names of people, names of places, and numbers. So, if I were to say ‘T,’ you should not say words like ‘Thomas,’ ‘Texas,’ or the number ‘Ten.’ But, you could say words like ‘table,’ ‘take,’ or ‘turtle.’

Also, do not use the same word again with a different ending. For example, if you said ‘take,’ then you should not say ‘takes,’ or ‘taking.’ These would all be considered the same word. Are you ready? Tell me as many words as you can think of that start with the letter F. I will tell you when to stop. Ready? Go.”

Start the stopwatch. Record all words produced (use the back of the page if more space is needed). However, if the examiner can’t keep up with the words produced and misses a word but is certain that the participant produced an admissible word, place an “X” on the line to indicate credit for the word. Place a single strike mark through inadmissible words, e.g., proper nouns (names or places), simple variations (adding “ed” or “ly”), plurals, and repetitions.

*If the participant stops for more than 10 seconds, encourage further responses. Say, “Can you think of any more words that start with the letter F?” Allow 60 seconds for each letter.* The next letter is not given until the entire 60 second period has passed.

After 60 seconds, instruct the participant to stop and proceed to the letter A saying, “**Stop. Thank you. Now, tell me as many words as you can think of that start with the letter A. I will tell you when to stop. Ready? Go.**” Begin timing. Allow 60 seconds.

After 60 seconds, instruct the participant again to stop and proceed to the letter S saying, “**Stop. Okay, thank you. Now, tell me as many words as you can think of that start with the letter S. I will tell you when to stop. Ready? Go.**” Begin timing. Allow 60 seconds.

Do not intervene for the occasional inadmissible word, however, if the participant has clearly lost focus as to what to do (e.g., begins naming only inadmissible words, such as numbers, or begins to name only variants of a previous word, such as “flower” followed by “rose,” “daisy,” etc.), clarify the instructions by saying, “**Tell me words that start with F (A or S) but do not include numbers,**” (or people, etc. depending on the error).

*If a participant asks if they have already said a word, do not say “yes” or “no.” Instead, simply encourage more responses saying, “It’s okay; keep going.”*

Score the total number of admissible words (new examiners should check their word count with audio tape for 2 months after initial certification).

	F	A	S
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
TOTAL	_____	_____	_____

# ANIMAL NAMING FORM

Score: \_\_\_\_\_

**Materials:** Black pen, stopwatch

**Instructions and Script:** “Now we’ll try something different. On this next task, I want you to tell me as many different animals as you can think of. Name them as quickly as you can. I will tell you when to stop. Ready? Go ahead.”

Start timing. Allow 60 seconds. Write down all of the words produced verbatim in the order in which they were presented. If production is too rapid for verbatim recording, the examiner may also indicate that an acceptable word was produced by simply making an “X” on the form. *If there is a pause of 10 seconds or more, repeat basic instructions and give the starting word “dog.” If the participant discontinues before the end of the time period, encourage him/her to produce more names.*

Place a single strike mark through repetitions or plurals; these should only be counted once. Names of extinct, imaginary, or magical animals are admissible. Given names like “Fido” or “Spot” are not counted. Credit is given for: breeds (e.g., terriers; male, female, infant names of a species (e.g., bull, cow, calf); both superordinate and subordinate examples of a species (e.g., both dog and terrier are credited); birds; fish; reptiles; and insects. Prompt participant not to provide given names after 3 consecutive occurrences.

Score the total number of admissible animals (new examiners should check their count by audio tape for 2 months after initial certification).

Animals			
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		32	



## NEUROCOGNITIVE BATTERY SUMMARY FORM

FORM CODE:

N

C

S

If a test was discontinued, record the reason for discontinuation using the appropriate letter:

**A = Refusal** (participant declines/refuses to perform a test)

**B = Task difficulty** (participant could not fully understand the instructions or became frustrated)

**C = Impairment** (Visual, hearing, literacy, or limb or motor problem)

BLOCK A		
TEST NAME	IF DISCONTINUED: Enter reason for discontinuation.	SCORE
2. Digit Symbol Substitution	2a. <input type="text"/>	2b. <input type="text"/> <input type="text"/>
3. Delayed Word Recall	3a. <input type="text"/>	3b. <input type="text"/> <input type="text"/>
4. Incidental Learning	4a. <input type="text"/>	4b. Symbols <input type="text"/> 4c. Digit-Symbol Pairs <input type="text"/>
5. Word Fluency (FAS)	5a. <input type="text"/>	5b. F Total <input type="text"/> <input type="text"/> 5c. A Total <input type="text"/> <input type="text"/> 5d. S Total <input type="text"/> <input type="text"/>
6. Animal Naming	6a. <input type="text"/>	6b. <input type="text"/> <input type="text"/>

## ADMINISTRATION NOTES

16. For any tests that were fully completed (not discontinued), was there anything that you feel may have substantially influenced the test results for this participant? These might include for example: hearing loss, vision problems, tremor, arthritis in the hands, sedation, or if performed in the home/LTC setting, environmental factors such as poor lighting, background noise or interruptions during the testing session.

16a. If yes, specify:





