

	Title:	Cognition (COG) – In-home Visit		
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1.0 Purpose:

The purpose of this document is to describe the standardized procedure for administering cognitive tests during the In-home Interview. These tests include the Rey Auditory Verbal Learning Test (REYI), Verbal Fluency (Category) – Animal Naming (AFT), Mental Alternation Test (MAT), and a Delayed Recall trial related to the RAVLT (REYII).

2.0 Scope:

This document is to be used by the In-home Interviewer when administering the Cognition Module of the CLSA In-home Questionnaire.

3.0 Responsibilities:

The In-home Interviewer is responsible for performing the procedures as described in the current version of the standard operating procedure (SOP).

4.0 Related Documents:

- **MAN_DCS_0212** – Supplemental Training Manual
- **Cognition_FINAL_2015Feb27.ppt** – Cognition Training Presentation
- In-Home Questionnaire
- **MAN_DCS_0237** – CLSA Comprehensive - Follow Up 1 Cognition Administration Guidance Manual

5.0 Definitions:

Not applicable

6.0 Equipment:

- In-home interviewer laptop;
- Laptop power cord;
- External microphone; and,
- Headphones.

7.0 Supplies:

Not applicable

8.0 Procedure Steps:

Contraindications:

- Participant cannot hear the audio recording (REYI and REYII only).

Recording a Participant:

Any time you record a participant's response in Onyx, follow the steps as outlined below.

Step 1: Before asking the participant to start each test listed in this SOP, click on the "O" radio button before the timer.

Step 2: Click on the "● record" button to begin recording the participant.

Step 3: Watch the time and inform the participant when the time has elapsed.

Step 4: Press the "● Stop" Button once completed.

NOTE: The record button will start the timer and the timer will count up. The recording/timer cannot be reset or paused, but can be stopped at any time by pressing ● **Stop**.

Assisting a Participant:

- If the respondent is silent for 15 seconds or indicates that they cannot list any more words before the time is up, encourage them by saying, "Can you think of any more words?" Otherwise, do not interrupt the participant unless the time allotted for the task is up.
 - Be careful not to jump in too quickly when the respondent pauses because this can disrupt the respondent's train of thought.
 - It is common for a respondent to list several words at the beginning, pause to think, and resume listing words.
- It is important NOT to engage a respondent in conversation while the recording is running.

Cognition Module:

- Seat the participant close to the laptop and ensure that s/he cannot see the screen.
- Conduct the cognition module in a quiet area and minimize interruptions and background noise. The cognition module should not be administered outdoors because background noise can be picked up very clearly on the recording and these noises can interfere with the NCC's ability to clearly hear the participant's responses.
- Always read the instructions from Onyx **verbatim**.

Step 1: Administer the tasks in the order in which they appear in the Cognition Module of the CLSA In-home Questionnaire.

Precise adherence to time limits and standardized instructions is critical. Read the introduction to the Cognition Module to the participant.

Step 2: Obtain the participant's permission to be recorded. If permission is given, record yes to "Do you consent to be recorded?" in Onyx. Click on **Next**.

NOTE: If participant does not consent to be recorded, all four tasks will be skipped and the Cognition Module will come to an end. Then go to **Step 27**.

Step 3: Read the instructions to inform the participant that they are to complete these tasks without help from anyone else and without the use of any tools or aids (including pen and paper).

Step 4: Read instructions to the participant, as outlined in the Cognition Module.

Step 5: Prior to administering the first task, make sure the participant can clearly hear the audio recording. The participant will listen to the audio recording using the headphones.

- Headphone instructions: Plug the headphones into the perimeter of the laptop via the stereo headphone/microphone combo jack, located on the bottom-right hand corner of the laptop. Have the participant put on the headphones.
- To conduct the sound test, click on the **Play** button of the recording.
- The recorded voice will say, "Before starting the first task, we would like to know if you can clearly hear this recorded voice. Please answer yes or no."
- If participant has no difficulties hearing the recorded voice, choose **Yes** and then **Next**. If participant did not clearly hear the recorded voice and/or finds the volume to be too loud or too soft, use the volume control on the headphones to adjust the volume accordingly. Inform the participant that you have adjusted the volume and will re-play the audio recording. Press the **Play** button to re-play the recording.

Task 1: Rey Auditory Verbal Learning Test (RAVLT)

Step 6: Read instructions to the participant. Check **Yes** when they are ready to start the recording, then choose **Next**.

- If the participant isn't ready, click **No**, then next and follow the script provided.

NOTE: If the participant does not understand the task, the interviewer will be asked if there were any reasons for this and Onyx will skip to the next task (i.e., Verbal Fluency [Task 2]).

Step 7: Read the script to tell the participant you are going to begin the recording now. Press the **Play** button of the recording to begin the list of words.

Step 8: When the recording has finished reciting the list of words, using the script in Onyx, start recording the participant and immediately ask her/him to recite the words.

Step 9: When 90 seconds has elapsed, the beeper will sound and the recording will stop. Click on **Next**.

NOTE: DO NOT STOP THE RECORDING BEFORE THE ALLOTTED TIME.

Step 10: Read the script to thank the participant and let them know that the task is finished. Click on **Next**.

Task 2: Verbal Fluency (Category) – Animal Naming

Step 11: Read the animal naming instructions to the participant. Ask the participant if s/he is ready to begin. If they are ready, check **Yes**, then **Next**.

If the participant isn't ready click **No**, then **Next** and follow the script provided.

NOTE: If the participant does not understand the task, then the interviewer will be asked to record any reasons for this and Onyx will skip to the Mental Alteration Test (Task 3).

Step 12: Start the recording and immediately say "Please begin."

Step 13: When 60 seconds has elapsed, the beeper will sound and the recording will stop.

NOTES:

- DO NOT STOP THE RECORDING/TIMER BEFORE THE ALLOTTED TIME.
- ONLY if the respondent asks for clarification, explain that animals include birds, insects, fish, etc.
- Do NOT give any clues on an animal's habitat, for example, farm, house, jungle, zoo, water, etc.

Acceptable interviewer prompts
a. Interviewer "...you can start at any time." Participant "naming animals?" Interviewer "yes"
b. Participant "do birds (fish, etc.) count?" Interviewer "yes, birds count" NOTE: Only clarify the category the participant inquires about, DO NOT ELABORATE on other acceptable categories. If the participant asks whether birds count, then only say that birds do count (do not say that fish, insects, etc. also count).
c. Interviewer "Can you think of anymore?"
d. Interviewer "Can you think of any more animals?"
e. Interviewer "Are there any other animal names you can think of?"

For more detailed information please see *Cognition_FINAL_2015Feb27.ppt – Cognition Training Presentation*

Task 3: Mental Alternation Test

Sub-Task 1: Counting from 1 to 20

Step 14: Read instructions to the participant for counting from 1 to 20. Ask the participant when they are ready to begin. Click **Yes**, then **Next**.

- If the participant isn't ready, click **No**, then **Next** and follow the script provided.

NOTE: If the participant does not understand the task, then the interviewer will be asked to record any reasons for this and Onyx will skip to the Delayed Recall for RAVLT (Task 4) if the participant completed Task 1.

Start the recording and immediately say "Please begin".

Step 15: When the participant has successfully counted from 1 to 20, immediately stop the recording.

- At 30 seconds the beeper will sound and the recording will stop.

Step 16: Read the script to inform the participant that this task is finished, then click **Next**.

Sub-Task 2: Reciting the Alphabet

Step 17: Read instructions to the participant and, when they are ready, click on **Yes** and then **Next**.

- If the participant isn't ready click **No**, then next and follow the script provided.

NOTE: If the participant does not understand the task, then the interviewer will be asked to record any reasons for this and Onyx will skip to the Delayed Recall for RAVLT (Task 4) if the participant completed Task 1.

Step 18: Start the recording and immediately say "Please begin."

Step 19: When the participant has successfully recited the alphabet from A to Z, immediately stop recording the participant's responses.

- At 30 seconds the beeper will sound and the recording will stop.

Step 20: Read the script to inform the participant that this task is finished. Click on **Next**.

Sub-Task 3: Alternating Consecutive Numbers and Letters

The participant MUST have completed the first 2 sub-tasks. If the participant was unable to complete the first 2 sub-tasks, then do not administer sub-task 3 and proceed to Task 4.

Step 21: Read instructions to participant, and when they are ready, click on **Yes** and then **Next**.

- If the participant isn't ready click **No**, then click **Next** and follow the script provided.

Start the recording and immediately say "Please begin".

NOTE: If the participant begins with letters instead of numbers, interrupt the participant, repeat the instructions, and have them restart. **DO NOT RESTART THE RECORDING.**

If, after three tries, the participant is unable to complete the task, then please skip the test and proceed to **Task 4**.

Step 22: When 30 seconds have elapsed or the participant has successfully recited the numbers and alphabet from 1-A to 26-Z, immediately stop the recording.

NOTE:

- If the participant loses their place in the alternation, **do NOT prompt them or repeat their previous alternation**, but encourage them to continue. You may state "Please continue from where you think you left off."
- You may permit the participant to re-start the task; however, the recording will continue and cannot be restarted.

Step 23: Inform the participant that the task is finished, then click **Next**.

Task 4: Delayed Recall for Task 1 (RAVLT)

Step 24: Read instructions to participant and have them repeat any of the words that they can remember from the first task.

Step 25: Start the recording and immediately say "Please begin".

Step 26: When 60 seconds have elapsed, the beeper will sound and the recording will stop.

NOTE: DO NOT STOP THE RECORDING BEFORE THE ALLOTTED TIME.

Step 27: Read the script to inform the participant that all of the cognitive tasks are over.

Step 28: Unplug the microphone headset from the laptop.

9.0 Documentation & Forms:

- **CRF_DCS_0054_1** – In-home Questionnaire Case Report Form

10.0 References:

- Canadian Community Health Survey on Healthy Aging Interviewer's Manual 4.2_04; [date unknown].
- Strauss E, Sherman EMS, Spreen O. A compendium of neuropsychological tests: administration, norms, and commentary. 3rd ed. Oxford: Oxford University Press; 2006.
- Teng EL. The Mental Alternation Test (MAT) Instructions; 1994.

F1 Revision History:

New Version #	Revision Date	Revision Author	Content Approval
3.1	2016-DEC-20	Lorraine Moss	Mark Oremus
Summary of Revisions			
Updated section 4.0			
General edits made to grammar and formatting.			
New Version #	Revision Date	Revision Author	Content Approval
3.0	2015-JUN-02	Lorraine Moss	Mark Oremus
Summary of Revisions			
Clarified that there is no timer – starting and stopping the recording controls the timer.			
Removed reference to the Scoring Manual and added reference to the Cognition Training Presentation under Related Documents.			
Added general instructions:			
→ <u>Seat the participant close to the laptop and ensure that s/he cannot see the screen.</u>			
→ Conduct the cognition module in a quiet area and minimize the interruptions and background noise. The cognition module should not be administered outdoors because the background noise can be picked up very clearly on the recording and these noises can interfere with the NCC's ability to clearly hear the participant's responses.			
→ Always read the instructions from Onyx verbatim.			
Added to Acceptable interviewer prompts:			
NOTE: Only clarify the category the participant inquiries about, DO NOT ELABORATE on other acceptable categories. If the participant asks whether birds count, then only say that birds do count (do not say that fish, insects, etc. also count).			
Added instructions to skip the task if the participant does not understand what is being asked of them.			
Added reminders not to stop the recording until the allotted time is up for Tasks 1, 2, and 4.			
General edits made to grammar and formatting.			