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# Procedures for A Comparison of Electronic and Paper Versions of the Montreal Cognitive Assessment

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## **A Comparison of Electronic and Paper Versions of the Montreal Cognitive Assessment**

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Participant ID # \_\_\_\_\_ Examiner \_\_\_\_\_ Date \_\_\_\_\_

Order of Assessments (Paper, iPad)

First: \_\_\_\_\_

Second: \_\_\_\_\_

### MoCA PROCEDURES

\_\_\_\_\_ **Consent Form:** Provide participant with a consent form (one to read and one to keep). Review the consent form with the participant stopping after each section to answer any potential questions. If appropriate, ask legal guardian to review consent form and the participant complete the assent form. Then, sign and date the consent form.

\_\_\_\_\_ **Medical History/Demographics Form:** Complete the medical history form below with the participant. Form should be completed in an interview style. If appropriate, review the medical history form with the legal guardian. The examiner should then complete the screening measures with the participant.

**Check and cover clocks in room. Ask participants to remove watches.**

### Participant Medical History Form

For each question below, please mark the answer that best describes you or fill in the blank. You do not need to answer any questions you do not want to answer

### Comparison of Computerized and Paper and Pencil Cognitive Assessments

#### Screening Information

1. Date of Birth: \_\_\_\_\_ Age: \_\_\_\_\_ Gender: \_\_\_\_\_
2. Have you had a traumatic brain injury or stroke? \_\_\_\_\_ **Yes** \_\_\_\_\_ **No**  
Describe:
3. Do you have a history of cognitive or developmental (e.g., learning) impairments other than those resulting from dementia or normal aging? \_\_\_\_\_ **Yes** \_\_\_\_\_ **No**  
Describe:
4. Cognitive Screening: \_\_\_\_\_ **Pass** (MMSE > 10) \_\_\_\_\_ **Fail**  
Describe:

5. Vision/Motor Screening: Say “*Connect the boxes to make a rectangle.*”  
\_\_\_\_\_ **Pass** \_\_\_\_\_ **Fail**

**Open Skitch app**

**\*able to draw rectangle with 2/4 corners and 2 interruptions**

6. Corrected vision: \_\_\_\_\_ **Yes** \_\_\_\_\_ **No**  
Describe:
7. Hearing Screening \_\_\_\_\_ **Pass** \_\_\_\_\_ **Fail** if unable to hold a conversation

**Open Uhearkisok app (password: moca)**

**\*\*When testing cover dial so participant can't see it\*\***

	Left	Right
.5K		
1K		
2K		
4K		

8. Hearing aid(s): \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ **Bilateral hearing aides**

Describe: (note if wearing hearing aides etc.)

9. Primary Language: \_\_\_\_\_

**\*Indicate if appropriate to continue or discontinue\***

**Participant Information**

10. Dominate Hand: \_\_\_\_\_

11. Education Level: check all that apply and, if applicable, fill in number of years.

\_\_\_\_\_ Less than High School: Number of Years of School Completed: \_\_\_\_\_

\_\_\_\_\_ High School Diploma

\_\_\_\_\_ Some College: Number of Years: \_\_\_\_\_

\_\_\_\_\_ Associate's Degree

\_\_\_\_\_ Bachelor's Degree

\_\_\_\_\_ Graduate Degree: Master's \_\_\_\_\_ Ph.D. \_\_\_\_\_ Ed.D. \_\_\_\_\_

12. Racial / ethnic group:

\_\_\_ American Indian / Alaskan Native

\_\_\_ Asian

\_\_\_ Native Hawaiian or other Pacific Islander

\_\_\_ Black or African American

\_\_\_ White (Caucasian)

\_\_\_ Hispanic or Latino

13. What is your current work status? Check ALL that apply

\_\_\_ Working full time for pay outside the home

\_\_\_ Working part time for pay outside the home

\_\_\_ Working for pay in a home-based business

\_\_\_ Working as a volunteer

\_\_\_ Working at home as a homemaker, stay-at-home parent, or care provider for other family members

\_\_\_ Attending school or job training

\_\_\_ Retired, and retirement was NOT related to current medical diagnosis

\_\_\_ Not working or retired early because of medical condition

\_\_\_ Not working for other reasons. Please describe: \_\_\_\_\_

14. What is your occupation (or what was your occupation when you stopped working)?

\_\_\_\_\_

15. With whom do you currently live?

- I live alone
- Family (spouse or domestic partner, children, parents, other relatives)
- Friends / Roommate
- Assisted Living or Adult Family Home
- Other, Please describe: \_\_\_\_\_

16. What is your marital status?

- Married / Committed relationship
- Single / Divorced / Widowed

17. What medications do you currently take? When did you last take your medications?

18. Do you use a touch screen tablet (not including a cell phone)?

- No
- Yes

19. How many hours per week do you use a touch screen tablet, anything with a touch screen without a keyboard (not including a cell phone)?

Not at all            <5 hours            **5-10 hours**            **10-20 hours**            >20 hours

20. (Only asked if a bolded answer was chosen for #19) For how many months have you been using a touch screen tablet (not including a cell phone) for more than 5 hours per week?

21. Do you use a touch screen cell phone?

- No
- Yes



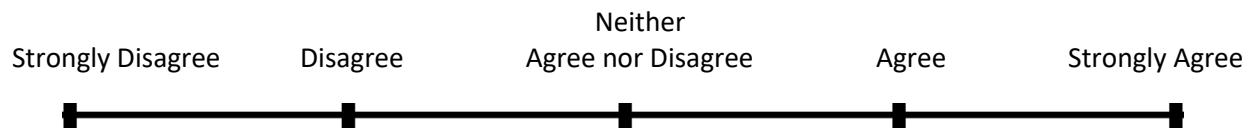
22. How many hours per week do you use a touch screen cell phone?

Not at all      <5 hours      **5-10 hours**      **10-20 hours**      >20 hours

23. (Only asked if bolded answer was selected for #22) For how many months have you been using a touch screen cell phone for more than 5 hours per week?

24. Select your agreement with the following statement:

I am comfortable using an iPad



**\*\*Check randomization sheet to determine what order the two assessments (paper MoCA, iPad MoCA) should be given.**

**\*Check and cover clocks in room.**

\_\_\_\_\_ iPad MoCA

Instructions:

1. Turn on iPad (press home button twice, no password needed)
2. Open MoCA application
3. Log in (username = XXXX@XXXXX.com; password = XXX or XXXX@XXX.com; password = XXXXX)
4. Click "Add New Subject"
5. Enter participant's demographic information
  - Initials/File number (enter the 3 letters on the file folder PAA, PAB...)
  - Education = A number from 0 to 48
    - 1.HS 12
    - 2.College 16
    - 3.Masters 18
    - 4.Doc 22
    - 5.If partial school enter the number provided by the client
6. Click "Next"
7. Click "New Test" (bottom right)
8. Enter your own rater initials

Give the iPad to the participant. The evaluator should be seated across from (as opposed to next to) the participant.

Rater will need to swipe “right to left” and select done to move to the next task. Once you have done this you cannot go back to a test item. (In the event of an item being incomplete and skipped, swipe through to the end of the test and re-start a new test and skip already completed items.)

Have participant complete all subtests of the MoCA using the iPad.

Confrontational naming: Record in box answer if incorrect.

**Once the confrontational naming task has been completed the participant will be instructed to hand the iPad back to the examiner.**

**\*\*Note: For Serial 7s remember that participant CANNOT count on fingers or use a paper or pencil to complete the task.\*\***

Memory Index Score: If needed (i.e., participant is using a term that is a multiple-choice option) Use alternative so that this incorrect choice is not an option.

If this is the first task provide a 10-minute break before moving on to next test.

\* Do not use participants first or last name on any of the testing forms. Participant number should be used only.\*

Visuospatial/Executive	/5
Naming	/3
Memory	NA
Attention	/6
Language	/3
Abstraction	/2
Delayed Recall	/5
Orientation	/6
MIS	/15
TOTAL SCORE	

\_\_\_\_\_Paper MoCA

Follow the instructions provided on the laminated sheet.

**Once the confrontational naming task has been completed the participant will be instructed to hand the iPad back to the examiner.**

If this is the first task provide a 10-minute break before moving on to next test.

\* Do not use participants first or last name on any of the testing forms. Participant number should be used only.\*

Visuospatial/Executive	/5
Naming	/3
Memory	NA
Attention	/6
Language	/3
Abstraction	/2
Delayed Recall	/5
Orientation	/6
MIS	/15
TOTAL SCORE	

\_\_\_\_ PSSUQ – Should be complete via interview

**POST ASSESSMENT USER SATISFACTION QUESTIONNAIRE**

**1. I felt comfortable doing this assessment using the iPad.**

*Strongly Agree*    1        2        3        4        5        6        7        *Strongly Disagree*

Comments:

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**2. The quality and clarity of the pictures was acceptable.**

*Strongly Agree*    1        2        3        4        5        6        7        *Strongly Disagree*

Comments:

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**3. Being assessed using the iPad provides a true picture of how I am able to do things.**

*Strongly Agree*    1        2        3        4        5        6        7        *Strongly Disagree*

Comments:

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**4. There were things I was unable to do/say because of the iPad that I was able to do/say using the pencil paper assessments.**

*Strongly Agree*      1      2      3      4      5      6      7      *Strongly Disagree*

Comments:

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**5. If I had to have assessments or tests in the future, I would be willing to do them using an iPad.**

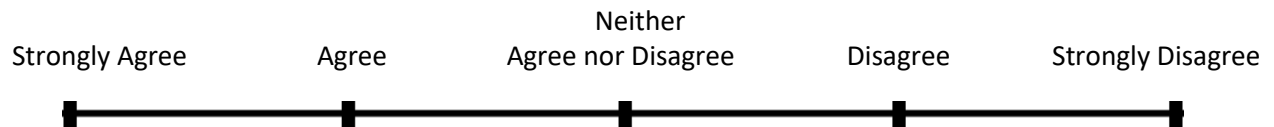
*Strongly Agree*      1      2      3      4      5      6      7      *Strongly Disagree*

Comments:

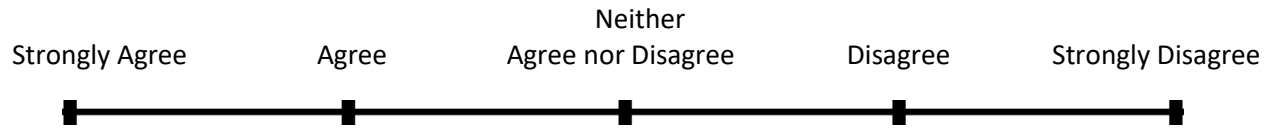
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**6. I was frustrated when taking the paper and pencil version.**



**7. I was frustrated when taking the computerized version.**



**8. Which type of administration did you prefer?**

- Greatly prefer pencil and paper
- Slightly prefer pencil and paper
- No preference
- Slightly prefer iPad
- Greatly prefer iPad

**Other Comments:**

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**\*\*REMINDER\*\*** Have participant complete payment form! ☺