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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 Uharkisok app (password: moca)
   **When testing cover dial so participant can’t see it**

<table>
<thead>
<tr>
<th></th>
<th>Left</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>.5K</td>
<td></td>
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<tr>
<td>1K</td>
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<tr>
<td>2K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4K</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

Strongly Disagree  Disagree  Neither  Agree  Strongly Agree
**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@XXXX.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.*

<table>
<thead>
<tr>
<th>Task</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visuospatial/Executive</td>
<td>/5</td>
</tr>
<tr>
<td>Naming</td>
<td>/3</td>
</tr>
<tr>
<td>Memory</td>
<td>NA</td>
</tr>
<tr>
<td>Attention</td>
<td>/6</td>
</tr>
<tr>
<td>Language</td>
<td>/3</td>
</tr>
<tr>
<td>Abstraction</td>
<td>/2</td>
</tr>
<tr>
<td>Delayed Recall</td>
<td>/5</td>
</tr>
<tr>
<td>Orientation</td>
<td>/6</td>
</tr>
<tr>
<td>MIS</td>
<td>/15</td>
</tr>
<tr>
<td><strong>TOTAL SCORE</strong></td>
<td></td>
</tr>
</tbody>
</table>
Participant ID #_____  

___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.*

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<td>MIS</td>
<td>/15</td>
</tr>
</tbody>
</table>

TOTAL SCORE
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:

   ________________________________________________________________________
   ________________________________________________________________________

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

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

   Comments:

   ________________________________________________________________________
   ________________________________________________________________________

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:

   ________________________________________________________________________
   ________________________________________________________________________
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.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

Comments:
______________________________________________________________________________
______________________________________________________________________________

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

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

Comments:
______________________________________________________________________________
______________________________________________________________________________

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

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
7. I was frustrated when taking the computerized version.

Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree

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:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

**REMINDER** Have participant complete payment form! 😊