M.I.S. (Memory Impairment Screen) - internet adaptation

Instructions: fill in the 6 digit ID code, follow the directions,
click in the circles to indicate responses (e.g., correct / incorrect).

DATE `7/11/2020`   TIME (24hr) `17:29:30`   SITE ID Code: `[        ]`   Partipant ID Code
`[        ]`

Overview: Four items from different categories are learned by identifying each item when
it's category cue is presented. Memory is tested by free recall after a delay with
interference. The category cues for those items are also tested to see if they will still
elicit cued recall of those items.

Controlled Learning: Tell the subject,

**"I am going to say 4 words for you to learn and remember.
Each word belongs to a different category.
Please repeat all 4 word that I say out loud after I finish saying them."**

Read the following words.
If the subject has difficulty immediately repeating the words, you can repeat all 4 words up to 3 times.

(Click the left button to the left of each word correctly repeated on the first effort.)

correct / wrong
[○] / [○] **"HISTORY"**

[○] / [○] **"FACTORY"**

[○] / [○] **"POLICEMAN"**

[○] / [○] **"TOOTHBRUSH"**

Then say,

**"To help you learn these words, I will tell you the category cue for each word and
ask you to tell me the word that goes with each category cue.
When I read each category cue to you, tell me
which one of these words goes with that category cue."**

Read each category cue aloud to the subject.
If the subject does not know the word, say

"'WORD' is a 'CUE'", and have the subject say the word".

Then go to the next category cue.
If the subject missed any of the words, the sequence of presenting categories should be repeated
once.

Pace acquisition at a rate that is comfortable for the subject.
Check the box to the left of the category cue to indicate
whether the subject states the correct word the first time the cue is read.

correct / incorrect

[○] / [○] **"BUILDING" - (FACTORY)**
(if incorrect, say "FACTORY is a BUILDING, say FACTORY")

[○] / [○] **"PERSONAL ITEM" - (TOOTHBRUSH)**
(if incorrect, say "TOOTHBRUSH is a PERSONAL ITEM, say TOOTHBRUSH")

[○] / [○] **"SCHOOL SUBJECT" - (HISTORY)**
(if incorrect, say "HISTORY is a SCHOOL SUBJECT, say HISTORY")

[○] / [○] **"CITY EMPLOYEE" - (POLICEMAN)**
(if incorrect, say "POLICEMAN is a CITY EMPLOYEE, say POLICEMAN")

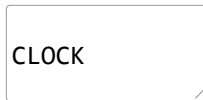When all four words have been identified by category, tell the subject,

"Later, I will ask you to recall the words."

ANIMAL NAMING - first 30 seconds

Say: **"In 30 seconds, tell me as many animals as you can think of,**

CLOCK

Ready, GO": (click to start ->) (0) [○]

You may click the numbers or use the right arrow to advance the count or the left arrow to reduce it.

0 [◉]
1 [○]   2 [○]   3 [○]   4 [○]   5 [○]
6 [○]   7 [○]   8 [○]   9 [○]   10 [○]
11 [○]   12 [○]   13 [○]   14 [○]   15 [○]
16 [○]   17 [○]   18 [○]   19 [○]   20+ [○]

CATEGORY FLUENCY

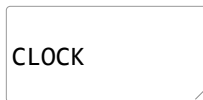
ANIMAL NAMING - second 30 seconds

If the subject named at least 4 animals in the first 30 seconds, say: **"In the next 30 seconds, tell me as many more and different animals as you can think of,**

If the subject named less than 4 animals in the first 30 seconds, say: **"In the next 30 seconds, tell me more animals, think of the zoo, the farm, and the jungle,**

CLOCK

Ready, GO": (click to start ->) (0) [○]

You may click the numbers or use the right arrow to advance the count or the left arrow to reduce it.

0 [⦿]
1 [◯]   **2 [◯]**   **3 [◯]**   **4 [◯]**   **5 [◯]**
6 [◯]   **7 [◯]**   **8 [◯]**   **9 [◯]**   **10 [◯]**
11 [◯]   **12 [◯]**   **13 [◯]**   **14 [◯]**   **15 [◯]**
16 [◯]   **17 [◯]**   **18 [◯]**   **19 [◯]**   **20+ [◯]**

CATEGORY FLUENCY [_____]

Free Recall: Elicit Free Recall by asking the subject to:

"Tell me as many of the 4 words you can remember, in any order."

Allow 20 seconds for Free Recall of all four words.
Stop if no more words have been recalled for 10 seconds.
Indicate Free Recall by clicking a button to the left of each word that was retrieved by free recall.

recalled / missed
[◯] / [◯] **"HISTORY"**

[◯] / [◯] **"FACTORY"**

[◯] / [◯] **"POLICEMAN"**

[◯] / [◯] **"TOOTHBRUSH"**

Cued Recall: Immediately after concluding Free Recall, elicit Cued Recall
Read the appropriate category cue to the subject in the order shown below,
and ask the subject to recall the word that was learned with that cue.
Allow 5 seconds for recall of each word cued.
Indicate Cued Recall retrieval by clicking the appropriate button to the left of each word.

correct / wrong
[◯] / [◯]   **"What was the BUILDING" - (FACTORY)**

[◯] / [◯]   **"What was the PERSONAL ITEM" - (TOOTHBRUSH)**

[◯] / [◯]   **"What was the SCHOOL SUBJECT" - (HISTORY)**

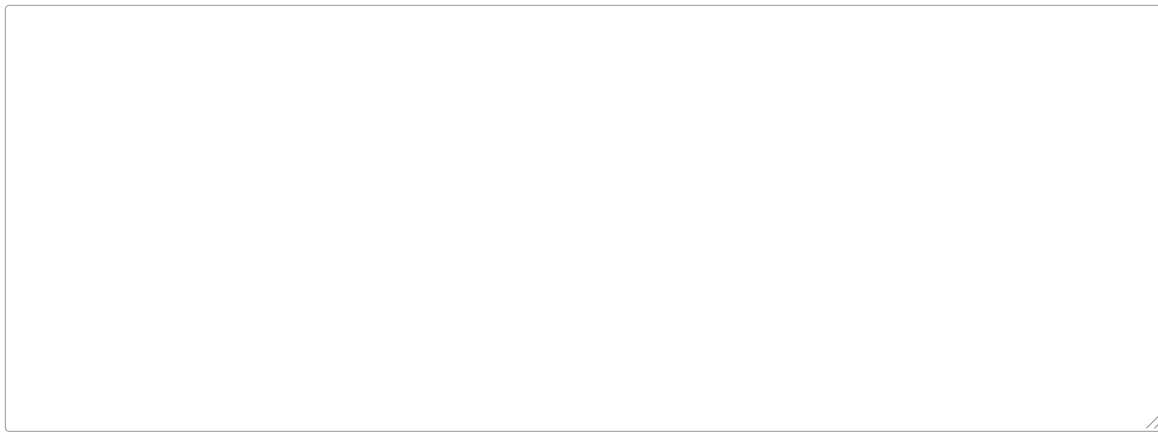[◯] / [◯]   **"What was the CITY EMPLOYEE" - (POLICEMAN)**

[CLICK to SEND DATA REPORT TO AFA] ----- ☐ Click this box to reset.

Start TIME (24hr): [17:29:30]   End TIME (24hr): [_____]   Total Time (seconds): [_____]

RESULTS: [_____]

M.I.S. - Memory Impairment Screen
INTERPRETATION OF MIS SCORE: Generally, a score of 4 or less suggests
impaired memory performance that may be associated with dementia or Alzheimer's disease
and warrants appropriate diagnostic assessment.

A normal individual should be able to name 8 animals in 30 seconds and 15 animals in 1 minute.

Four Item Delayed Free and Cued Recall with Controlled Semantic Processing and Encoding
Specificity
Developed by Herman Buschke, MD, Department of Neurology, Albert Einstein College of Medicine

Albert Einstein College of Medicine owns the copyright for the Memory
Impairment Screen and makes this test available as a service to the
research community but licenses the test for commercial use.

See this link for earlier neuropsychiatric examination elements:
See this link for review of dementia and memory screening tests:
See this link for journal article addressing need for dementia screening.

Electronic form developed by J. Wesson Ashford, MD, PhD for www.Medafile.com
For comments, email to drjwa2@gmail.com
See www.memtrax.net or www.memtrax.com for visual memory tests.
There is no individual or agency that takes responsibility for the results obtained
with this test or this form.