M.I.S. (Memory Impairment Screen)

Overview: Four items from different categories are learned by identifying each item when its category cue is presented. Memory is tested by free recall after a delay with interference. If any items are not retrieved by free recall, the category cues for those items are provided to elicit cued recall of those items.

Controlled Learning

Tell the participant, **"I am going to say 4 words for you to learn and remember. Each word belongs to a different category. Please repeat all 4 words that I say out loud after I finish saying them."** Read the following words. If the participant has difficulty immediately repeating the words, you can repeat all 4 up to 3 times. (Check "Correct" if the word is correctly repeated on the first or second effort.)

	Correct	Incorrect
"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 participant. If the participant does not know the word, say **"The word is ...",** and have the participant say the word. Then go to the next category cue. If the participant missed any of the words, the sequence of presenting categories should be repeated twice. Pace acquisition at a rate that is comfortable for the participant. (Check "Correct" when the participant states the correct word)

	Correct	Incorrect
"BUILDING" - FACTORY		
"PERSONAL ITEM" - TOOTHBRUSH		
"SCHOOL SUBJECT" - HISTORY		
"CITY EMPLOYEE" - POLICEMAN		

When all four words have been identified to the best of the participant's ability, tell the participant, **"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. Ready, GO"**

Animals named:

Total number of animals named in first 30 seconds: _____

Second 30 seconds

        If the participant named <u>at least</u> 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. Ready, GO"**

    <u>*OR*</u> If the participant named <u>less than</u> 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. Ready, GO"**

Animals named:

Total number of animals named in second 30 seconds: _____

....

Free Recall

Elicit Free Recall by asking the participant 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. (Check "Correct" if the word is correctly retrieved in Free Recall.)

	Correct	**Incorrect**
"HISTORY"		
"FACTORY"		
"POLICEMAN"		
"TOOTHBRUSH"		

Total number of "Correct" Free Recall words:

....

Cued Recall

Immediately after concluding Free Recall, elicit Cued Recall of <u>any words that were *not* retrieved by Free Recall</u>. For each word that was <u>not</u> retrieved by Free Recall, read the appropriate category cue to the participant in the order shown below, and ask the participant to recall the word that was learned with that cue. For example: **"What was the BUILDING?"** Allow 5 seconds for recall of each word cued. (Check "Correct" if the word is correctly retrieved in Cued Recall.)

	Correct	**Incorrect**
"BUILDING" - FACTORY		
"PERSONAL ITEM" - TOOTHBRUSH		
"SCHOOL SUBJECT" - HISTORY		
"CITY EMPLOYEE" - POLICEMAN		

Total number of "Correct" Cued Recall words:

SCORING: Multiply the number of <u>Free Recall</u> words by 2 and add the result to the number of <u>Cued Recall</u> words [(2 X Free Recall) + Cued Recall] to obtain the MIS score.

TOTAL SCORE: ☐ / 8