ICPSR 4248

ACTIVE (Advanced Cognitive Training for Independent and Vital Elderly), 1999-2001 [United States]

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Form 415 AN1 Individual Assessment, Part 1 Questionnaire

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ACTIVE

Question by Question Specifications Guide for Administration of the Individual Assessment Part I (1st Annual Post-Test) Measurements Form 415

I. Purpose

The measures in the Individual Assessment Part I (1st Annual Post-Test) are designed to measure aspects of the subject's cognitive functioning, useful field of vision and complex reaction time. The results of the measures completed at the 1st Annual Post-Test visit will be compared to results obtained at earlier and later points in the study.

II. Study Sample and Administration

The Individual Assessment Part I (1st Annual Post-Test) will be completed on all ACTIVE subjects after Booster Training has been completed. The ideal order of administration of these 1st Annual Post-Test Measures is as follows:

- 1. Individual Assessment Part I
- 2. Individual Assessment Part II
- 3. Group Measures

However, this order is not strict. You may need to alter the order of administration to accommodate either subject or Field Site scheduling conflicts. Regardless of order of administration, no 1st Annual Post-Test measures should be completed prior to the completion of the Booster training sessions.

III. Administration Protocol

The following items should be assembled in advance of the subject's appointment time.

A. Materials

- Individual Assessment Part I (1st Annual Post-Test) Form #415 with ID label attached
- HVLT Subject Data Forms Packet #310a with ID labels attached to all pages
- Word Series Data Form #311 with ID label attached
- HVLT Recognition Data Form #312 with ID label attached
- QxQ Specifications Guide for Administration of the Individual Assessment Part I (1st Annual Post-Test)

B. Equipment

- Sony Boom Box Model CFS-B15
- The HVLT Administration Audiotape for the 1st Annual Post-Test Visit
- Electronic timer
- Pencils for subject's use
- Useful Field of View (UFOV) and Complex Reaction Time (CRT) supplies:
 - computer
 - UFOV software
 - CRT software
- Spare batteries should be carried for all battery operated equipment

C. Preparation

- 1. Testers must successfully complete all requirements for Certification as an ACTIVE Tester.
- 2. Ideally, all Individual Assessment Part I Measurements can be completed at 2 workstations. A table for two with a smooth working surface is needed for the subject and tester for recording and testing during administration of the HVLT and Word Series tests. A computer station is used for the UFOV and CRT computer tests.
- 3. The area selected must allow for private, confidential testing with minimal background noise.
- 4. In advance of the subject's appointment time, testers should assemble a packet with all forms necessary for completion of the Individual Assessment Part I (1st Annual Post-Test) Measurements. All forms should be pre-labeled with the subject's full study ID Labels.
- 5. Prior to the start of the session, the tester should set up and test equipment to be sure that all equipment is in proper working order, including the audiotape player, electronic timer, computer and related software for UFOV and the CRT tests. Spare batteries should be carried for all battery operated equipment.

IV. Section by Section Review

A. Identifying Information

Items A1. - A3. should be completed by the ACTIVE tester prior to the start of the measurement.

- **A1.** Study ID: Affix the subject's study ID label in the space provided.
- **A2.** Visit #: This item may be pre-coded. Various forms will be used at the time of the Individual Assessment Part I (1st Annual Post-Test) (Visit # I3). The code for Individual Assessment Part I (1st Annual Post-Test) is I3. Be sure to circle or code the visit number on the form if it is not pre-coded.
- **A3.** Form Version: Be sure the form version on the form matches the current approved version.

B. HVLT Word List 3

1. <u>Description</u>

The Hopkins Verbal Learning Test (HVLT) is a test of new verbal learning and memory. Unique HVLT word lists will be used at each study visit. The test is administered in two parts with the second part being administered after the Word Series Test. Three trials are conducted in the first part of the test. Read the Introduction and give the subject the pre-labeled packet of forms entitled "HVLT Data Forms Packet." This is a timed test. Allow precisely 2 minutes for completion of each of Trials 1-3.

2. Materials / Equipment Needed

- Sony Boom Box Model CFS-B15
- The HVLT Administration Audiotape for the 1st Annual Post-Test Visit
- Electronic timer
- Pencils for subject's use
- Individual Assessment Part I (1st Annual Post-Test) Form #415 with ID label attached
- HVLT Subject Data Forms Packet #310a with ID labels attached to <u>all</u> pages (NOTE: The same HVLT Subject Data Forms Packet will be used for all study visits.)

3. Administration

The instructions for this task have been audiotaped for consistency in administration across sites. Be certain to use the HVLT audiotape prescribed for the 1st Annual Post-Test visit. In the event of tape or cassette player failure, the tester should administer the test using the Instructions provided as Attachment A.

In the event of a mechanical failure during the test, administer using the script. Re-start the test at the beginning of the Trial in which the failure occurred, e.g., if the tape fails after the second word in Trial 2, start Trial 2 again with instructions. It is not necessary to go back to Trial 1 if the failure occurs during Trial 2 or Trial 3.

In situations where <u>interruptions</u> occur that might interfere with hearing the tape or concentration (e.g., a fire drill; someone entering the testing room; loud noise lasting more than a few seconds), rewind the tape to the <u>beginning</u> of the word list. If interruption occurs during the instructions, rewind and replay the instructions in their entirety. Describe interruption on VCS.

4. Scoring

Record the Trial 3 end time in item B1 of the Individual Assessment Part I data form, page 5.

Coding for this test should be completed in the HVLT Coding Forms after the testing session for each subject.

C. Word Series Test

1. Description

This is a test of inductive reasoning in which the subject is shown a series of days of the week or months of the year and must select the next week/month in the series from among five choices.

2. Materials / Equipment Needed

- Electronic timer
- Pencils for subject's use
- Individual Assessment Part I (1st Annual Post-Test) Form #415 with ID label attached
- Word Series Data Form #311 with ID label attached

3. Administration

Follow the script and directions on the test form precisely. Use a copy of the test form (#311) to read the script. This is a timed test of 6 minutes. You may suggest that subjects use a ruler or card to keep their place in the test form. Be sure subjects are on the <u>last page</u> of the instructions before you tell them to turn the page and begin the test. Go over each example no more than 2 times. If the subject does not understand the pattern for the example after 2 tries, move to the next example. Once the subject starts the test, if you notice that s/he is spending a very long time on a problem, encourage her/him to move to the next problem. A long time is defined as being on problem #1, 2, or 3 at the end of 3 minutes.

4. Scoring

The Word Series data from the subject's data form will be entered directly into the ACTIVE DMS. Scores will be computed by the DMS.

D. HVLT Recognition

1. <u>Description</u>

The HVLT Recognition task is the second part of the Hopkins Verbal Learning Test (HVLT) conducted earlier in the assessment. It is a test of new verbal learning and memory.

2. Materials/Equipment Needed

- Sony Boom Box Model CFS-B15
- The HVLT Administration Audiotape for the 1st Annual Post-Test Visit
- Pencils for subject's use
- Individual Assessment Part I (1st Annual Post-Test) Form #415 with ID label attached
- HVLT Recognition Data Form #312 with ID label attached
 (NOTE: The same HVLT Recognition Form #312 will be used for all study visits.)

3. Administration

The instructions for this task have been audiotaped for consistency in administration across sites. Be certain to use the HVLT audiotape prescribed for the 1st Annual Post-Test visit. In the event of tape or cassette player failure, the tester should administer the test using the Instructions provided as Attachment A.

In the event of a mechanical failure, continue to administer the test using the script. If in the middle of the instructions, re-read the instructions. If in the middle of the word list, start reading the script at that point in the list. Do not go back to the beginning of the word list.

In situations where <u>interruptions</u> occur that might interfere with hearing the tape or concentration (e.g., a fire drill; someone entering the testing room; loud noise lasting more than a few seconds), rewind the tape to the <u>beginning</u> of the word list. If interruption occurs during the instructions, rewind and replay the instructions in their entirety. Describe interruption on VCS.

4. Scoring

The HVLT Recognition data from the subject's data form will be entered directly into the ACTIVE DMS. Scores will be computed by the DMS.

E. Break Point

Always use the standardized break point to offer the subject a brief break to stretch, relax, get a drink of water, go to the bathroom, etc. A break <u>must be offered</u> after the completion of the HVLT Recognition Assessment. It can take 30-40 minutes to complete the remainder of the assessment, so subjects should be encouraged to take even a small break to avoid a break at a later point in the battery.

If for any reason the tester feels the subject cannot complete the assessment in a single session, the session should be stopped at the break point.

The intent of the 'break point' protocol is to standardize, study-wide, the points at which subjects are refreshed for the testing tasks in the batteries.

- 1. Indicate in this item whether or not a second session was required to complete this assessment.
- 1a. If a second session is required, record the end time of Session 1 in this data field. Record the time you complete the HVLT Recognition Assessment. Use a 12 hour clock; circle **AM** or **PM** as appropriate.
- **1b.** Record the date Session 1 was conducted. Record the date as month, day and year. Note the year must be recorded as a four digit number; e.g., 1999. Do not leave blank spaces; use leading zeroes as required.
- **1c.** Record the start time for Session 2.

F. Useful Field of View (UFOV)

1. <u>Description</u>

The UFOV is comprised of three subtests, each of which builds on the previous subtest. The first subtest requires the subject to identify which of two objects (a silhouette of a car or a truck) was presented inside a fixation box. The exposure duration of the target is manipulated to determine a threshold value for correct identification. The second test includes a central identification task, but in addition, the subject is required to locate a peripheral target. The location of the target is varied randomly from trial to trial and once again a threshold for both the identification of the central target AND correct localization of the peripheral target is determined by manipulating the duration of exposure to the display. The third test requires the subject to perform the central identification task and the peripheral localizing task, however, the peripheral target is embedded in a field of distracters. Once again, the threshold exposure duration for correct performance of both the identification and localization tasks is determined.

2. Administration

These instructions provide general guidelines to follow during testing. They will be better understood after administering the test.

Verbal responses: You may have to remind the subject to touch the screen to respond to the questions. In the beginning, many like to respond verbally only. If the subject continues to respond verbally throughout the trials, inform her that she does not have to tell you the name of the vehicle, she just needs to touch the vehicle on the screen when she is asked to identify which vehicle was inside the white box. If she continues to make verbal responses throughout the trials, no harm is done.

Responses not timed: You may have to explain to some that their responses are not timed. It doesn't matter how long it takes them to touch the screen. It matters whether their responses are correct/incorrect.

Practice trials: For Task 1 and Task 2, if the subject does not get all four practice trials correct, repeat the practice. Depending upon his/her performance, you may want to go through the demo screens and then the practice trials again. If some of the practice trials are missed, then say, "You missed a few of those exercises so we're going to review/practice some more." For Task 3, not all individuals will be able to get all practice trials correct. As long as the subject understands the task and can get half the practice trials correct, you may begin the test trials. For Task 4, where the center task changes, the criterion for moving to the actual test is that the subject correctly discriminates ³/₄ of the center task discrimination.

Task 2, 3 and 4: Since the targets are generated randomly, when going through the demonstrations, you will have to note the identity of the center target and the location of the peripheral target for each trial.

Often at this point you'll have questions whether the vehicle inside the box and the vehicle on the outside the box are the same. Inform the subject that the vehicle on the outside is always a car. He/she doesn't have to worry about what it is, but where it is. If he/she responds verbally throughout the task that the vehicle on the outside is the same or opposite of the vehicle inside

the box, you may explain again that the identity of the outside vehicle plays no part in his/her score.

Starting off, you may have to lead subjects through the questions. Sometimes they want to jump to locating the outside car before answering what was inside the box. As you go through the demonstration trials, provide feedback whether the center and peripheral responses were correct. If the peripheral response was incorrect, inform the participant of the correct location.

Point out that the correct identification of the center target is more important than the correct location of the peripheral target. The trial will not count if the center target is missed, even if the peripheral target is located correctly.

Throughout Task 2, Task 3 and Task 4, if the subject misses the identity of the vehicle in the white box two or more times, remind the person to focus on the box and identify the vehicle inside.

Answers to common questions: Subjects can do the test with their glasses on or off-whichever way they are most comfortable.

Viewing distance from the screen is variable, but the recommended distance is approximately 24 inches. The subject should sit at a distance at which they are comfortable, but this distance should be comfortable to the extent that the subject can touch the screen to enter their responses.

If a subject has a physical limitation which makes it difficult for him/her to touch the screen, the subject may verbally respond and the tester may touch the screen for him/her.

Program Flow: The first screen presents the Main Menu with four options. Select the UFOV option to access the screening software. You will notice a green dot on the button for the UFOV option. In general, the green dot appears on the buttons corresponding to the normal program flow to be used during the screening.

The next screen is for the input of subject identification information. The software is set up for double entry of the information. That is, once the information has been entered, the software requires a second entry of the SAME information. The two sets of information must match EXACTLY in order to proceed.

The third screen contains copyright information. Touch the continue box and proceed. At this point you are ready to begin the actual test. To do so, read the script below, and then follow the directions on the screen. You should read the directions along with the subject. Once the UFOV screening program has been completed, select the exit button from the menu and the software will automatically move to the Complex Reaction Time (CRT) software.

Reminders:

- 1. Allow the subject to use/not use eyeglasses as they choose.
- 2. Try to maintain a viewing distance of 24 inches \pm 8 inches.
- 3. When the prompts on the screen identify an object, point to that object.
- 4. Responses are not timed.
- 5. Practice Criteria:

Task Criteria

- 1 4 out of 4 correct
- 2 4 out of 4 correct (a correct response includes both correct central target identification <u>and</u> peripheral target localization).
- 3 2 out of 4 correct (same definition of correct as for task 2).
- 4 3 out of 4 correct for central discrimination task only.

3. Tester's Script

The next test is a visual attention test called the Useful Field of View. This test will measure how well you can notice objects around you when you are paying attention to something in front of you. This ability to divide your attention and notice things to the side is needed for getting around safely in the environment.

You will go through a series of brief exercises. These exercises will become harder and harder. For each exercise, you will quickly reach a point where it will become too fast for you to see everything. This is OK. We are looking for the speed at which the exercise becomes too difficult. At this point, you will have to guess at the correct response. Guessing is OK because many times you will be correct even when you are not sure.

READ DIRECTIONS ON SCREEN.

G. Complex Reaction Time

1. Description

The Complex Reaction Test involves a measurement of how quickly a subject can recognize that one of four possible traffic signs has changed relative to the other three signs.

2. Administration

This test is administered on a computer terminal. The stimuli consist of international road signs (pedestrian, bicycle, right and left turn arrows) with and without a red slash through them. Subjects are instructed to ignore signs containing a red slash and to react to signs without a red slash. One of three reactions is required. For bicycle and pedestrian signs without a slash the subject is required to press a button on a computer mouse as quickly as possible. The action signaled by the right or left turn arrow without a slash is to move the mouse in the direction indicated by the arrow as quickly as possible. The number of stimuli on the screen at any given time ranges from three to six signs. Within a trial, the number of stimuli is held constant although the positions of the signs change throughout the frames.

The initial screen has three options - Begin, Subject Info and Exit. If the current testing session is for the same subject who has just completed the UFOV screening, select the "Begin" button. The software will pick up the identifying information about the subject from the UFOV software. If, however, you have chosen the "Bypass to CRT" option from the main menu, you must select the "Subject Info" button. If the subject has not just completed the UFOV software, it will be necessary to enter the identifying information, otherwise the current subject's performance may be attributed to the wrong subject. once you have selected either the "Begin" button, or have completed the Subject Information screen, begin using the CRT script on the computer monitor.

3. Script

Introduction: This is a traffic sign recognition test. It will measure how fast you can recognize that one sign has changed relative to other signs. This ability to notice and react to changes in objects is helpful for mobility in everyday life.

MOUSE PRACTICE: Before we begin the actual task, I want you to practice using the mouse. Let us read the directions together from the computer screen.

REMINDER: AT SOME POINT DURING THE INTRODUCTION, TRACE THE RED SLASHES TO MAKE THEM CLEAR TO THE SUBJECT.

H. End Time

Session end time: Record the session end time when you complete the CRT.

ATTACHMENT A



HVLT and HVLT RECOGNITION INSTRUCTIONS

This next section is a measure of your ability to learn and remember a list of words. For this section you will use these forms. (HAND THE SUBJECT A PRE-LABELED PACKET OF FORMS TITLED "HVLT DATA FORMS PACKET.") We will start with the form marked Number 1.

TRIAL 1: The first thing I will do is read you a list of words one at a time. Listen carefully because when I stop, I want you to write down as many of the words that you can remember on the form marked NUMBER 1. It doesn't matter in what order you write them. Just try to remember and write down as many of the words as you can. When you can no longer remember any more words, place your pencil on the table.

<u>FOR EACH TRIAL</u>, AFTER INSTRUCTIONS AND BEFORE THE WORD LIST, ASK IF THERE ARE ANY QUESTIONS. ANSWER APPROPRIATELY.

Are there any questions? I will not be able to answer questions once I start reading. Please do not talk during the test. Ready?

PAUSE 10 SECONDS. THEN READ THE WORD LIST ALOUD. USING A TIMER, PAUSE 2 SECONDS BETWEEN EACH WORD.

Seconds

SUGAR	1
TRUMPET	4
VIOLIN	7
COAL	10
GARLIC	13
KEROSENE	16
VANILLA	19
WOOD	22
CLARINET	25
FLUTE	28
CINNAMON	31
GASOLINE	34

PAUSE 2 SECONDS AND THEN SAY: Now write all the words you can remember.

START TIMER. AT THE END OF 2 MINUTES, SAY: Stop!

TRIAL 2: (COLLECT THE NUMBER 1 DATA FORM)

Now I am going to read the same list again. When I stop, I want you to write down as many words as you can remember, including the words you wrote down the first time. This time use the form marked NUMBER 2. It doesn't matter in what order you write them, just write as many of the words as you can remember whether or not you wrote them down before. When you can no longer remember any more words, place your pencil on the table. Are there any questions? Ready?

PAUSE 10 SECONDS, THEN READ THE WORD LIST ALOUD. PAUSE 2 SECONDS BETWEEN EACH WORD.

PAUSE 2 SECONDS AND THEN SAY: Now write all the words you can remember.

START TIMER. AT THE END OF 2 MINUTES, SAY: Stop!

TRIAL 3: COLLECT THE NUMBER 2 DATA FORM.

Now I'm going to read the same list once more. When I stop I want you to write down as many word as you can remember <u>including the words you wrote down the first two times</u>. Remember it doesn't matter in what order you write them, just write as many words as you can remember whether or not you wrote them down before. When you can no longer remember any more words, place your pencil on the table. Are there any questions? Ready?

PAUSE 10 SECONDS, THEN READ THE WORD LIST ALOUD. PAUSE 2 SECONDS BETWEEN EACH WORD.

PAUSE 2 SECONDS AND THEN SAY: Now write all the words you can remember.

START TIMER. AT THE END OF 2 MINUTES, SAY: Stop!

RECORD THE TRIAL 3 END TIME IN THE DATA FORM.

HVLT RECOGNITION INSTRUCTIONS

HAND THE SUBJECT THE FORM #312.

Now I am going to read you another list of words. Some of them are from the list I read before, some of them are new words. For each of the words I read, please write down Y for YES if the word is from the original list. If the word is not from the original list, write N for NO. Again, write Y in the box if the word is from the original list and N if the word is not from the original list. You will only have time to write a Y or an N because the words will be read very quickly. Remember, do not write YES or NO, just Y or N.

AFTER INSTRUCTIONS AND <u>BEFORE</u> THE WORD LIST, ASK IF THERE ARE ANY QUESTIONS. ANSWER APPROPRIATELY.

Are there any questions? I will not be able to answer questions once I start reading. Please do not talk during the test. Ready?

PAUSE 10 SECONDS. THEN READ BOTH THE ITEM NUMBER AND RECOGNITION WORD LIST ALOUD. PAUSE $\underline{2}$ SECONDS BETWEEN EACH WORD.

1.	Pepper	13.	Drum
2.	Ball	14.	Chair
3.	Trumpet	15.	Flute
4.	Kerosene	16.	Sand
5.	Garlic	17.	Oil
6.	Salt	18.	Coal
7.	Basement	19.	Electricity
8.	Vanilla	20.	Piano
9.	Wood	21.	Sugar
10.	Priest	22.	Clarinet
11.	Cinnamon	23.	Moon
12.	Gasoline	24.	Violin