

ADAS

Administration Manual for the Alzheimer's Disease Assessment Scale

Adapted from the Administration and Scoring Manual for the
Alzheimer's Disease Assessment Scale,
1994 Revised Edition, Richard C. Mohs, Ph.D.

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INTRODUCTION

The test items on the cognitive part of the **ADAS** should be given in the order indicated.

The WORD RECALL test is given first
and the
WORD RECOGNITION task is given last
with the
other cognitive tests given in-between.

Separating the two word memory tasks in this way minimizes the chance that a subject will confuse the words from the two tasks.

At the start of a test session, before giving the **WORD RECALL** test, the tester should have a short conversation with the subject about neutral topics such as the weather, the subject's trip to the clinic, or what the subject had for breakfast. This conversation will help to put the subject at ease before the testing begins and will give the tester an opportunity to observe how the subject can use and understand language.

➡ There are three clinical ratings of language ability on the cognitive part of the **ADAS**.

The **ADAS** is not a timed test and the subject's score does not depend upon how rapidly the test is completed. The cognitive items should be given so that the session moves smoothly and quickly, but not so that the subject feels pressured to respond rapidly.

Feedback to the subject should be neutral and, usually, should not indicate whether or not the response was correct. Comments such as, "**That's fine**" or "**You're doing well**" are appropriate as long as the subject is trying. If the subject specifically asks whether or not they were correct, feedback can be given.

TABLE OF CONTENTS	PAGE
Word Recall Task.....	2
Naming Task	3 - 4
Commands	5
Constructional Praxis	6 - 7
Ideational Praxis	8
Orientation	9
Word Recognition	10 - 11
Remembering Test Instructions	12
Spoken Language Ability	13
Word-Finding Difficulty and Comprehension	14



INSTRUCTIONS for WORD RECALL TASK

On this task, the subject is given three trials to learn a list of high-frequency, high-imagery nouns. The 10 words are printed in block letters on white cards.

Use the appropriate word list for each visit as indicated on the study worksheet, and record the subject's responses on the study worksheet.

At the start of the first trial, the tester gives instructions similar to the following:	"I am going to show you some words printed on these white cards one at a time. Please read each word out loud and try to remember it, because later I will ask you to try to remember all of the words I have shown you. Ready, read the word and try to remember it."
The examiner can prompt with:	"Read it out loud and try to remember it" as necessary.

If the subject cannot read the word or is slow, the examiner can say the word out loud and have the subject repeat it. Note this and continue with this procedure at each testing. In some cases, the examiner may have to say all of the words and have the subject repeat them. Regardless, make sure the subject looks at each word while repeating it.

After the presentation, the tester asks the subject to try to recall as many of the words as possible by saying:	"Good, now tell me all the words you remember that were on the list."
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Two more learning and recall trials follow.

For trials 2 and 3, say to the subject:	"Now I'm going to show you that same list again. Read each word out loud and try to remember it."
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Encouragement can be given if the subject is nervous or giving up.

SCORING:

The subject's score is the mean number of words *not* recalled on three trials (maximum score = 10)

Enter the subject's score on the study worksheet



INSTRUCTIONS for NAMING TASK

For this task, the subject is asked to name the 12 randomly presented real objects, with
high (Flower, Bed, Whistle, Pencil),
medium (Rattle, Mask, Scissors, Comb), and
low (Wallet, Harmonica, Stethoscope, Tongs) **frequency values.**

The subject is also asked to name the fingers on his/her dominant hand.

- ➡ Use the study worksheet to record the subject's responses.
- ➡ Objects should be presented in random order. Do not allow the subject to touch the objects.

Give the subject instructions similar to the following:	"Now I am going to show you some objects. I want you to tell me what their names are. What is this called?" (present object)
Continue to present objects in random order. The first question about each object should be:	"What is this called?" or "What is the name of this thing?"
If the subject responds with the object's function say:	"Yes, that's what it does, but what is its name?"

- ➡ If the subject does not respond, the examiner should give the clue for that item provided below. If the subject still does not respond or makes an error, go on to the next object.

ITEM	CLUES
Flower	grows in a garden
Bed	used for sleeping in
Whistle	makes a sound when you blow on it
Pencil	used for writing
Rattle	a baby's toy
Mask	hides your face
Scissors	cuts paper
Comb	used on hair
Wallet	holds your money
Harmonica	a musical instrument
Stethoscope	doctor uses it to listen to your heart
Tongs	picks up food



INSTRUCTIONS for NAMING TASK (Cont'd.)

- The subject is also asked to name the fingers of his/her dominant hand (e.g., thumb, index [pointer/forefinger], middle, ring finger, and pinky).

Give the subject instructions similar to the following:	“Now I am going to point to a part of your hand and I want you to tell me what it’s called. What is this?”
For the 4 fingers, if a query is necessary, say:	“What is another name for this finger?”

ITEM
Thumb
Index/forefinger/pointer
Middle
Ring
Pinky

The hardest part of scoring the naming task is determination of the range of correct responses based on the subject’s cultural and geographical background. A response other than the name given on the response form should be scored as correct if it is a name that would be used by a non-demented person with the same cultural background as the subject.

FOR EXAMPLE: the **Mask** might be called a **“false face”** in some parts of the U.S.; the **Wallet** might be called a **“billfold”** or the **Harmonica** might be called a **“mouth organ”**.

- Descriptions of the object, semantic or phonemic paraphasias should not be scored as correct.

EXAMPLES OF INCORRECT RESPONSES ARE: **“listening thing”** for **Stethoscope**, **“cutter”** for **Scissors**, and **“prongs”** for **Tongs**.

SCORING

0 = 0-2	items (objects and fingers) named incorrectly
1 = 3-5	items (objects and fingers) named incorrectly
2 = 6-8	items (objects and fingers) named incorrectly
3 = 9-11	items (objects and fingers) named incorrectly
4 = 12-14	items (objects and fingers) named incorrectly
5 = 15-17	items (objects and fingers) named incorrectly

Enter the subject’s score on the study worksheet.



INSTRUCTIONS for COMMANDS

This task is designed to assess receptive speech. The subject is asked to carry out 5 separate commands with 1 to 5 steps per command.

- Each command should be read once. If the subject does not respond or makes an error, the tester should give the **ENTIRE** command one more time.
- All commands should be given to every subject.
- If the subject demonstrates hearing or attentional difficulties, orient them by saying, **“Ready?”** or **“Now I want you to...”** prior to giving the command. Do **NOT** give the command more than twice.
- There should be no other materials near the pencil, watch and card (pens, paper, etc.)
- Each underlined element represents a single step.
- Each command is scored as a whole (no partial credit). All components must be correct for the response to be scored as correct.
- Use the study worksheet to record the subject's responses.

Give the subject instructions similar to the following:	“Now I am going to ask you to do a few things. First, ... “Make a <u>FIST</u>.” (“Relax it” if needed) “Point to the <u>CEILING</u> and then to the <u>FLOOR</u>.”
Line up a Pencil, Watch, and Card on the table. Say:	“Put the <u>PENCIL ON TOP OF THE CARD</u> and then <u>PUT IT BACK</u>.” “Put the <u>WATCH</u> on the <u>OTHER SIDE OF THE PENCIL</u> and then <u>TURN OVER THE CARD</u>.”
Remove the Pencil, Watch, and Card from the table. Say:	“<u>TAP EACH SHOULDER TWICE</u> with <u>TWO FINGERS</u> keeping your <u>EYES SHUT</u>.”

SCORING

0 =	All commands correct
1 =	1 command incorrect, 4 commands correct
2 =	2 commands incorrect, 3 commands correct
3 =	3 commands incorrect, 2 commands correct
4 =	4 commands incorrect, 1 command correct
5 =	All 5 commands correct

Enter the subject's score on the study worksheet

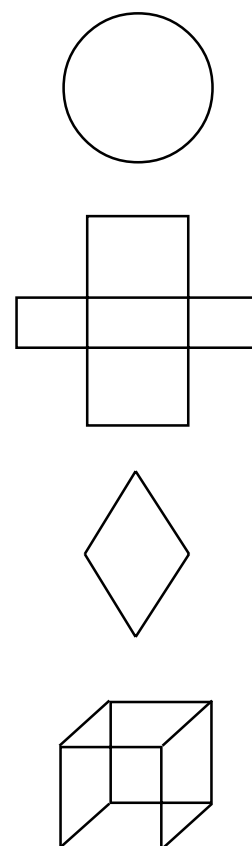
INSTRUCTIONS for CONSTRUCTIONAL PRAXIS

This test assesses the subject's ability to copy 4 geometric forms ranging from a very simple one (circle) to a fairly difficult one (cube).

- Use the study worksheet to score the subject's responses.
- The forms provided should be presented one at a time.
- The tester should give the subject a lead pencil with an eraser along with the drawing.

The instructions to the subject should be similar to the following:	"On this piece of paper is a shape. Try to draw another one that looks just like this, somewhere on the page." (Examiner may point to shape)
If the subject's response is quick or sloppy, prompt with:	"Take your time and try to draw it just like this one."

- The subject should be allowed **two attempts** for each shape. Allow a second attempt only if the subject asks or indicates a problem with their drawing. The subject may erase if they need to. If the subject draws on top of the printed design, count this as one attempt and indicate that they should try on an empty part of the page. If the subjects says the reproduction is poor, query if the subject wants another try. When two attempts are made, ask the subject to indicate which one is the best, and then score that attempt.
- If the subject cannot reproduce the figure in two attempts, the tester should go on to the next item.
- A drawing should be scored as correct if the subject has reproduced all of the essential features of the original. Changes in size do not count as errors. Small gaps between lines do not indicate an error, as long as the shape has been reproduced.



INSTRUCTIONS for CONSTRUCTIONAL PRAXIS (cont'd)

The forms should be presented in the following order:

Circle
Two Overlapping Rectangles
Diamond (Rhombus)
Cube

SCORING GUIDELINES:

Circle: A closed curved figure

Two Overlapping Rectangles: Forms must be four-sided, and overlap must be similar to presented form. Changes in size are not scored.

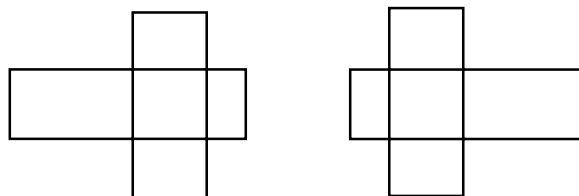
Diamond (Rhombus): Figure must be four-sided, oriented so that the points are at the top and bottom, and the sides are approximately equal length (e.g., longest side is not ≥ 1.5 times the length of the shortest side).

Cube: The form is 3-dimensional, with front face in the correct orientation, internal lines drawn correctly between corners. Opposite sides of faces should be approximately parallel.

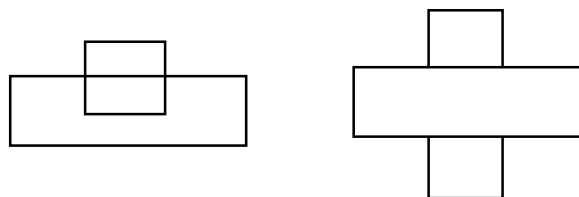
Examples of Correct and Incorrect Drawings:

Overlapping Rectangles

Correct

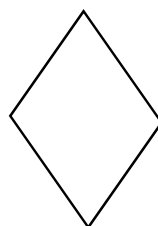


Incorrect



Diamond

Correct

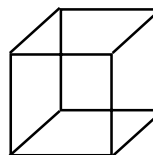


Incorrect

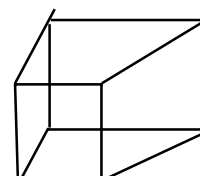
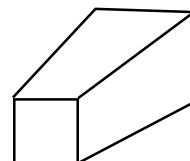


Cube

Correct



Incorrect



SCORING

0 =	All 4 drawings correct
1 =	1 form drawn incorrectly
2 =	2 forms drawn incorrectly
3 =	3 forms drawn incorrectly
4 =	4 forms drawn incorrectly
5 =	No figures drawn, scribbles; parts of forms; words instead of forms

Enter the subject's score on the study worksheet



INSTRUCTIONS for IDEATIONAL PRAXIS

This task is designed to determine whether the subject can perform a familiar but complex sequence sequence of actions.

➡ Use the study worksheet to record the subject's responses.	➡ A long envelope, an 8.5" x 11" sheet of paper and a pencil are placed in front of the subject.
Give the subject instructions similar to the following:	"I want you to pretend you have written yourself a letter. Take this piece of paper, fold it so that it will fit into the envelope, and then put it into the envelope. Then, seal the envelope, address the envelope to yourself, and show me where the stamp goes."
➡ There are 5 components to this task and each one is underlined in the instruction. ➡ If the subject forgets part of the task, or is having difficulty, the tester should repeat the instruction for the component of the task where the subject is having difficulty. FOR EXAMPLE: If the subject stops after folding the paper and putting it in the envelope, the tester should give one reminder on the next component; "Now seal the envelope." If the subject cannot do this part, move on and give one reminder on the next component: "Now address the envelope to yourself."	After the first complete instruction only one additional reminder should be given for each component. ➡ Impairment on this item should reflect dysfunction in executing an overlearned task only and not recall difficulty. ➡ Any address which would enable a postal worker to deliver the envelope is counted as correct, even though it might not contain the subject's current address. The address should contain: name, street, city, and state. Zip code is not required. ➡ Have the subject indicate where the stamp goes by placing an "X" on the envelope.

SCORING

0 =	All components performed correctly
1 =	Failure to perform 1 component
2 =	Failure to perform 2 components
3 =	Failure to perform 3 components
4 =	Failure to perform 4 components
5 =	Failure to perform 5 components

Enter the subject's score on the study worksheet



INSTRUCTIONS for ORIENTATION

This task is designed to determine how well oriented the subject is with regard to time and place.

➤ Use the study worksheet to record the subject's responses.

➤ The components of orientation are:

Person
Day of the Week
Date, Month, Year
Season
Time of Day
Place

➤ The tester should ask the subject for each of these pieces of information one at a time.

➤ Make sure no watches, clocks, calendars, etc. are visible to the subject.

➤ One restatement of question is allowed (e.g., if subject confuses day and date).

➤ Acceptable range for answers include:

Date:	+ one day
Time:	+ one hour
Place:	Partial name acceptable (e.g., name of hospital, clinic or professional building)
Season:	Within one week prior to onset or within two weeks of termination

➤ **Month, Year, Day of the Week**, and the **subject's first and last name** must be **exact**.

SCORING: One point is given for each incorrect response (maximum = 8)

➤ Enter the subject's score on the study worksheet.



INSTRUCTIONS for WORD RECOGNITION

On this task the subject is given one trial to learn a list of 12 words.

- | | |
|---|--|
| <ul style="list-style-type: none"> ➤ Use the appropriate word list as indicated on the study worksheet, and record the subject's responses on the study worksheet. ➤ The learning part of this trial is similar to the learning part of the WORD RECALL TEST since the subject is asked to read each word aloud and try to remember it. | <ul style="list-style-type: none"> ➤ For the one test trial, the 12 studied words are mixed with 12 new words matched to the studied words for frequency and imagery and the subject is asked to decide for each word whether or not it was one of the studied words. |
|---|--|

At the start of the Learning Trial, give the subject instructions similar to the following:

"I am going to show you some words printed on these white cards. I want you to read each word out loud and try to remember it."

Some of the words on the WORD RECOGNITION TASK may not be familiar to the subject and the subject may have difficulty reading them. If the subject cannot read a word, the tester should say the word out loud. However, it is important for the subject to actually look at each word and try to read it.

At the end of the learning portion of a trial the tester should say something to the subject similar to the following:

"Now I'm going to show you another set of words. Some of the words were on the list I just showed you and others are new. For each word I want you to tell me whether it is one of the words I just showed you."

The tester shows the first word and says either:
or:

"Is this one of the words I showed you before, yes or no?"
"Did I show you this word before?"

The same instruction is given before the second test word. For the remaining test words the tester should say:

"How about this one?"



INSTRUCTIONS for WORD RECOGNITION (cont'd)

- If the subject does not remember the task (e.g., reads the word rather than responding **“Yes”** or **“No”**) then the tester should repeat or rephrase the entire question and make a note in the appropriate column on the worksheet that the subject had to be reminded of the task instructions. Likewise, if the subject appears to have fallen into a response set (i.e., saying **“Yes”** to every word or saying **“No”** to every word), then the test instructions should be repeated.



INSTRUCTIONS for REMEMBERING TEST INSTRUCTIONS

This item evaluates the subject's ability to remember the requirements of the **WORD RECOGNITION TASK**.

On each recognition trial, the subject is asked prior to presentation of the first two words:	"Did I show you this word before, or is this a new word?"
For the third word, the subject is asked:	"How about this one?"

- If the subject responds accurately, i.e., **"Yes"** or **"No"**, then memory for the instructions is accurate.
- If the subject fails to respond, this signifies that the instructions have been forgotten and the instruction is repeated.
- The procedure used for the third word is repeated for words 4-24. Each instance of memory failure for the test instructions is noted.

SCORING

0 =	Subject never needs extra reminders of instructions
1 =	Very mild – forgets once
2 =	Mild – must be reminded 2 times
3 =	Moderate – must be reminded 3 or 4 times
4 =	Moderately severe – must be reminded 5 or 6 times
5 =	Severe – must be reminded 7 or more times

Enter the subject's score on the study worksheet



INSTRUCTIONS for SPOKEN LANGUAGE ABILITY

This item is a global rating of the quality of speech, i.e., clarity, difficulty in making oneself understood.

- ➡ In rating this item the tester should consider all of the speech produced by the subject during the test session.
- ➡ Quantity of speech and word finding difficulty are not rated on this item.
- ➡ It should be noted that the higher scores (4-5) on this item are reserved for subjects whose expressive language abilities are impaired to such an extent that they seldom communicate without difficulty.

SCORING

0 =	No instances when it is difficult to understand the subject
1 =	Very mild – one instance of lack of understandability
2 =	Mild – subject has difficulty less than 25% of the time
3 =	Moderate – subject has difficulty 25-50% of the time
4 =	Moderately severe – subject has difficulty 50% of the time
5 =	Severe – one or two word utterance; fluent, but empty speech; mute

Enter the subject's score on the study worksheet

INSTRUCTIONS for WORD-FINDING DIFFICULTY AND COMPREHENSION

Word-Finding Difficulty in Spontaneous Speech

Along with Spoken Language Ability, this item rates impairment in expressive speech, but it rates **only word finding difficulty**, whereas Spoken Language Ability is a more global rating of the extent to which the subject can communicate verbally.

- ➡ To rate this item, the tester must determine whether the subject has difficulty in finding the desired word in spontaneous speech. The problem may be overcome by circumlocution, *i.e.*, giving explanatory phrases or nearly satisfactory synonyms.
- ➡ Do not include finger and object naming in this rating.

SCORING

0 =	No evidence of word finding difficulty in spontaneous speech
1 =	Very mild – 1 or 2 instances, not clinically significant
2 =	Mild – noticeable circumlocution or synonym substitution
3 =	Moderate – loss of words without comprehension on occasion
4 =	Moderately severe – frequent loss of words without comprehension
5 =	Severe – near total loss of content of words; speech sounds empty; 1 – 2 word utterances

Enter the subject's score on the study worksheet

Comprehension This item rates the subject's ability to understand speech

- ➡ To rate this item, the tester should consider how well the subject was able to understand the tester's speech during the opening discussion and during the test session
- ➡ Do not include responses to commands

SCORING

0 =	No evidence of poor comprehension
1 =	Very mild – 1 or 2 instances of misunderstanding
2 =	Mild – 3-5 instances of misunderstanding
3 =	Moderate – requires several repetitions and rephrasing
4 =	Moderately severe – subject only occasionally responds correctly, <i>i.e.</i> , yes/no questions
5 =	Severe – subject rarely responds to questions appropriately, not due to poverty of speech

Enter the subject's score on the study worksheet