

# EMACC

Form 1

## Early AD/MCI Alzheimer's Cognitive Composite

Form 1

Protocol

Site Number

Screening Number

Randomisation Number

Assessment Date

Rater

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Presentation Design 2022

Build 1



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Reitan, R. M. (1958). "Validity of the Trail Making test as an indicator of organic brain damage". Percept. Mot Skills. 8: 271–276

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## Delis-Kaplan Executive Function System (D-KEFS)

### Verbal Fluency Test

#### D-KEFS Letter Fluency

#### Materials

- A stopwatch

Use the following prompts during the Letter Fluency condition:

- If the participant fails to make a response after any 15-second interval, say, **Keep going**. Provide this prompt only once per trial.
- The first time a participant generates three consecutive words that do not start with the designated letter, say, **The letter we are using now is \_\_\_\_\_**. Provide this prompt only once per trial.



Keep the stopwatch running while providing prompts.

**D-KEFS Letter Fluency****Trial 1**

I'm going to say a letter of the alphabet. When I say begin, I want you to tell me as many words as you can that begin with that letter. You will have 60 seconds before I tell you to stop. None of the words can be names of people or places or numbers. For example, if I gave you the letter *T*, you could say *take*, *toy*, *tooth*, and so forth, but you should not say *Tom* because that is a person's name; you should not say *Tottenham* because that is the name of a place, and you should not say *twelve* because that is a number. Also, do not give me the same word with different endings. For example, if you say *take*, you should not also say *takes* or *taking*. Do you have any questions?

**The first letter is F. Ready? Begin!**

[Start timing. On the record pages, write the participant's responses verbatim. Record responses that the participant generates during the first 15 seconds in the first column (labelled '1–15 Seconds'); record responses given in the second 15 seconds in the second column (labelled '16–30 Seconds') and so forth in the third and fourth columns on the following page. After 60 seconds, say:]

**Stop.**

**D-KEFS Letter Fluency****Trial 1****First Interval: 1-15 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses**Second Interval: 16-30 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses

**D-KEFS Letter Fluency****Trial 1****Third Interval: 31-45 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses**Fourth Interval: 46-60 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses

## D-KEFS Letter Fluency

### Trial 2

---

Introduce the letter by saying,

**The next letter is A. Ready? Begin!**

[Start timing. Record the participant's responses as described for Trial 1. After 60 seconds, say:]

**Stop.**

**D-KEFS Letter Fluency****Trial 2****First Interval: 1-15 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses**Second Interval: 16-30 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses



**D-KEFS Letter Fluency****Trial 2****Third Interval: 31-45 Seconds**☐ No Responses Provided

Correct

1. ☐2. ☐3. ☐4. ☐5. ☐6. ☐7. ☐8. ☐9. ☐10. ☐11. ☐12. ☐13. ☐14. ☐15. ☐☐ No Correct Responses**Fourth Interval: 46-60 Seconds**☐ No Responses Provided

Correct

1. ☐2. ☐3. ☐4. ☐5. ☐6. ☐7. ☐8. ☐9. ☐10. ☐11. ☐12. ☐13. ☐14. ☐15. ☐☐ No Correct Responses

## D-KEFS Letter Fluency

### Trial 3

---

Introduce the letter by saying,

**The next letter is S. Ready? Begin!**

[Start timing. Record the participant's responses as described for Trial 1. After 60 seconds, say:]

**Stop.**

**D-KEFS Letter Fluency****Trial 3****First Interval: 1-15 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses**Second Interval: 16-30 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses

**D-KEFS Letter Fluency****Trial 3****Third Interval: 31-45 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses**Fourth Interval: 46-60 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses

## D-KEFS Category Fluency

Use the following prompts during the Category Fluency condition:

- If the participant fails to make a response after any 15-second interval, say, **Keep going**. Provide this prompt only once per trial.
- The first time a participant generates three consecutive words that do not fit the category, say, **The category we are using now is \_\_\_\_\_**. Provide this prompt only once per trial.



Keep the stopwatch running while providing prompts.

### Trial 1

**Now we are going to do something a little different. This time, I want you to tell me as many animals as you can. It doesn't matter what letter they start with. You will have 60 seconds before I tell you to stop. Do you have any questions? Ready? Begin!**

[Start timing. On the record pages, write the participant's responses verbatim. As before, write the participant's responses in the appropriate 15-second interval columns. At the end of 60 seconds, say:]

**Stop.**

**D-KEFS Category Fluency****Trial 1****First Interval: 1-15 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses**Second Interval: 16-30 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses

**D-KEFS Category Fluency****Trial 1****Third Interval: 31-45 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses**Fourth Interval: 46-60 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses

## D-KEFS Category Fluency

### Trial 2

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Introduce the category by saying,

**Now tell me as many boys' names as you can. You will have 60 seconds before I tell you to stop. Ready? Begin!**

[Start timing. Record the participant's responses as described for Trial 1. At the end of 60 seconds, say:]

**Stop.**



**D-KEFS Category Fluency****Trial 2**

<b>First Interval: 1-15 Seconds</b>		<b>Second Interval: 16-30 Seconds</b>	
<input type="checkbox"/> No Responses Provided		<input type="checkbox"/> No Responses Provided	
	Correct		Correct
1.	<input type="checkbox"/>	1.	<input type="checkbox"/>
2.	<input type="checkbox"/>	2.	<input type="checkbox"/>
3.	<input type="checkbox"/>	3.	<input type="checkbox"/>
4.	<input type="checkbox"/>	4.	<input type="checkbox"/>
5.	<input type="checkbox"/>	5.	<input type="checkbox"/>
6.	<input type="checkbox"/>	6.	<input type="checkbox"/>
7.	<input type="checkbox"/>	7.	<input type="checkbox"/>
8.	<input type="checkbox"/>	8.	<input type="checkbox"/>
9.	<input type="checkbox"/>	9.	<input type="checkbox"/>
10.	<input type="checkbox"/>	10.	<input type="checkbox"/>
11.	<input type="checkbox"/>	11.	<input type="checkbox"/>
12.	<input type="checkbox"/>	12.	<input type="checkbox"/>
13.	<input type="checkbox"/>	13.	<input type="checkbox"/>
14.	<input type="checkbox"/>	14.	<input type="checkbox"/>
15.	<input type="checkbox"/>	15.	<input type="checkbox"/>
<input type="checkbox"/> No Correct Responses		<input type="checkbox"/> No Correct Responses	

**D-KEFS Category Fluency****Trial 2****Third Interval: 31-45 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses**Fourth Interval: 46-60 Seconds**☐ No Responses Provided

Correct

- |     |                          |
|-----|--------------------------|
| 1.  | <input type="checkbox"/> |
| 2.  | <input type="checkbox"/> |
| 3.  | <input type="checkbox"/> |
| 4.  | <input type="checkbox"/> |
| 5.  | <input type="checkbox"/> |
| 6.  | <input type="checkbox"/> |
| 7.  | <input type="checkbox"/> |
| 8.  | <input type="checkbox"/> |
| 9.  | <input type="checkbox"/> |
| 10. | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> |
| 12. | <input type="checkbox"/> |
| 13. | <input type="checkbox"/> |
| 14. | <input type="checkbox"/> |
| 15. | <input type="checkbox"/> |

☐ No Correct Responses

# Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV)

## Symbol Coding Subtest

### Materials

- A stopwatch
- A sharpened pencil
- Coding worksheet

## Demonstration Items



Do NOT proceed with the Test Items until the participant understands the task.

Present the Coding worksheet along with a sharpened pencil to the participant and say:

**Next, I'm going to ask you to copy some symbols.**

You MUST demonstrate the **first three** Demonstration Items for the participant. Point to the key above the test items and point across the numbers from 1 to 9. Say:

**Look at these boxes. Each box has a number in the top part and a special mark in the bottom part. Each number has its own mark** [point to 1 and its symbol, then to 2 and its symbol].

Point to the Demonstration Items and say:

**Down here, the boxes have numbers in the top parts but are empty in the bottom parts. You are to draw the marks that belong in the empty boxes, like this.**

[Pause - turn to the next page for remaining instructions.]

**WAIS-IV Coding****Demonstration Items**

Point to the first Demonstration Item (6) and point to the key to show its corresponding symbol. Say:

**Here is a 6. The 6 has this mark, so I draw that mark in the box, like this** [write the symbol].

Point to the first Demonstration Item (8) and point to the key to show its corresponding symbol. Say:

**Here is an 8. The 8 has this mark, so I draw that mark in the box, like this** [write the symbol].

Point to the first Demonstration Item (3) and point to the key to show its corresponding symbol. Say:

**Here is a 3. The 3 has this mark, so I draw that mark in the box, like this** [write the symbol].

## WAIS-IV Coding

### Sample Items



Immediately correct any errors made by the participant on a Sample Item.

Point to the Sample Items. Say:

**Now you do these. Stop when you get to this line** [point to the heavy line that separates the Sample Items from the Test Items].

Allow the participant to work alone on the remaining six Sample Items.

**If the participant makes a mistake on a Sample Item, correct the error immediately.** Use the item to review the use of the key. Continue to help the participant, if necessary, until the participant correctly completes all six Sample Items.

If the participant completes the Sample Items correctly:

Offer praise such as **Yes** or **Right** and, finally, **Now you know how to do them.**

## WAIS-IV Coding

### Test Items



Provide encouragement or reminders as needed, but DO NOT stop timing. Record the participant's performance after **120 seconds**.

When the participant has successfully completed the Sample Items, say:

**When I say go, do these the same way. Start here** [point to the first test item], **go in order, and don't skip any. Work as fast as you can without making mistakes until I tell you to stop. Are you ready? Go!** [START TIMING]

Do not discourage a participant from making spontaneous corrections unless he or she does so repeatedly and it impedes performance.

Do not provide the participant with an eraser. If the participant asks what to do if he or she makes a mistake, say, **That's OK. Just keep working as fast as you can.**

If the participant omits an item or begins to complete a row in reverse order (from his or her right to left), say, **Do them in order. Don't miss any.** Point to the first omitted item and say, **Do this one next.**

If necessary, remind the participant to go in order and continue working. Give no further assistance.

[Turn to the next page to record the participant's performance.]

## WAIS-IV Coding

## Scoring



Watch the participant's performance closely. Do NOT allow them to skip around.

**Mark completion point after 120 seconds below and on the Coding worksheet.**

If the participant is still working at 120 seconds, stop timing and say, **Stop**.

135	134	133	132	131	130	129	128	127	126	125	124	123	122	121	120	119	118
1	6	2	4	8	5	7	2	3	8	6	3	7	5	9	1	4	6
117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101	100
4	3	2	5	1	7	6	9	2	5	7	4	8	1	9	8	6	3
99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82
3	2	7	4	6	5	3	7	8	9	6	2	4	1	5	9	1	8
81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
9	5	6	8	4	3	5	2	9	7	1	8	2	3	1	4	6	7
63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46
4	6	5	8	2	7	8	2	4	1	5	7	9	3	6	9	3	1
45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
3	8	7	1	3	4	6	8	5	9	6	5	2	7	4	2	1	9
27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10
5	6	7	4	1	8	9	2	7	3	4	6	5	2	9	1	3	8
9	8	7	6	5	4	3	2	1									
5	3	9	6	7	2	8	4	1	2	7	1	4	5	9	3	8	6

Demo Sample

## WAIS-IV Coding

## Scoring



Do NOT score until assessment is complete.

Circle all incorrectly decoded items.

Item No. →  
Stimulus →  
Correct Response →

1	2	3	4	5	6	7	8	9
1	4	8	2	7	6	9	3	5
└	—	┐	)	(	┌	┐	^	

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
8	3	1	9	2	5	6	4	3	7	2	9	8	1	4	7	6	5
┐	^	└	┐	)		┌	—	^	(	)	┐	└	└	—	(	┌	
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
9	1	2	4	7	2	5	6	9	5	8	6	4	3	1	7	8	3
┐	└	)	—	(	)		┌	┐		┐	┌	—	^	└	(	┐	^
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
1	3	9	6	3	9	7	5	1	4	2	8	7	2	8	5	6	4
└	^	┐	┌	^	┐	(		└	—	)	┐	(	)	┐		┌	—
64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
7	6	4	1	3	2	8	1	7	9	2	5	3	4	8	6	5	9
(	┌	—	└	^	)	┐	└	(	┐	)		^	—	┐	┌		┐
82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
8	1	9	5	1	4	2	6	9	8	7	3	5	6	4	7	2	3
┐	└	┐		└	—	)	┌	┐	┐	(	^		┌	—	(	)	^
100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117
3	6	8	9	1	8	4	7	5	2	9	6	7	1	5	2	3	4
^	┌	┐	┐	└	┐	—	(		)	┐	┌	(	└		)	^	—
118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
6	4	1	9	5	7	3	6	8	3	2	7	5	8	4	2	9	1
┌	—	└	┐		(	^	┌	┐	^	)	(		┐	—	)	┐	└

Total number of **CORRECTLY** decoded symbols in **120 Seconds**



**WAIS-IV Coding****Worksheet Image Capture**

**AFTER** the assessment is completed,  
please capture image of participant's Test worksheet below.



# Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV)

## Digit Span

### General Directions

Digit Span includes two tasks: Digit Span Forwards (Forwards) and Digit Span Backwards (Backwards). Administer both tasks to the participant.

Each test item is composed of two trials. Administer both trials of each item.

Read each trial verbatim at the rate of one digit per second, dropping your voice slightly on the last digit in the sequence. Pause to allow the participant to respond.

If the participant:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• begins to respond before you have finished reading the trial</li> </ul>                              | <p>Present the remainder of the trial and allow the participant to respond. Award appropriate credit for the response and then say, <b>Remember to wait until I've finished before you start.</b></p>                      |
| <ul style="list-style-type: none"> <li>• asks you to repeat the trial</li> </ul>  | <p>Say, <b>I cannot repeat the sequence. Just take your best guess.</b></p>  |
| <ul style="list-style-type: none"> <li>• provides multiple responses to a trial or self-corrects after his or her initial response</li> </ul> | <p>Score only the intended response. If it is not clear which one is the intended response, say, <b>You said [insert participant's response] and you said [insert participant's response]. Which one did you mean?</b></p> |

Provide assistance on the sample item of Backwards. Proceed to Item 1 even if the participant is unable to respond correctly to any trial of the sample items.

**WAIS-IV Digit Span****Scoring Guidelines**

Record the participant's responses verbatim. Correct responses are listed.

For each trial, score **1** point if the participant gives a correct response.

For each trial, score **0** points if the participant

- gives an incorrect response, or
- says that he or she does not know the answer, or
- does not respond within approximately 30 seconds.



Discontinue after scores of 0 on both trials of an item.

**WAIS-IV Digit Span****Item Administration Forwards**

To introduce the task, say, **Now I'm going to say some numbers. Listen carefully, I can only say them one time. When I have finished, I want you to say them back to me in the same order. Just say what I say.**


Proceed to Trial 1 of Item 1.



Remember to administer Backwards regardless of the participant's performance on Forwards.

WAIS-IV Digit Span

Forwards



Administer Trial 1 and Trial 2 of each item. Proceed to the next item if the discontinue criterion has not been met.

Record responses verbatim in the **Response** column. Score **0** or **1** for each trial.

Item 1


Trial	Response	0	1
9 - 7		<input type="radio"/>	<input type="radio"/>
6 - 3		<input type="radio"/>	<input type="radio"/>

Item 2

Trial	Response	0	1
5 - 8 - 2		<input type="radio"/>	<input type="radio"/>
6 - 9 - 4		<input type="radio"/>	<input type="radio"/>

WAIS-IV Digit Span

Forwards



Administer Trial 1 and Trial 2 of each item. Proceed to the next item if the discontinue criterion has not been met.

Record responses verbatim in the **Response** column. Score **0** or **1** for each trial.

Item 3


Trial	Response	0	1
7 - 2 - 8 - 6		<input type="radio"/>	<input type="radio"/>
6 - 4 - 3 - 9		<input type="radio"/>	<input type="radio"/>

Item 4

Trial	Response	0	1
4 - 2 - 7 - 3 - 1		<input type="radio"/>	<input type="radio"/>
7 - 5 - 8 - 3 - 6		<input type="radio"/>	<input type="radio"/>

WAIS-IV Digit Span

Forwards



Administer Trial 1 and Trial 2 of each item. Proceed to the next item if the discontinue criterion has not been met.

Record responses verbatim in the **Response** column. Score **0** or **1** for each trial.

Item 5


Trial	Response	0	1
3 - 9 - 2 - 4 - 8 - 7		<input type="radio"/>	<input type="radio"/>
6 - 1 - 9 - 4 - 7 - 3		<input type="radio"/>	<input type="radio"/>

Item 6

Trial	Response	0	1
4 - 1 - 7 - 9 - 3 - 8 - 6		<input type="radio"/>	<input type="radio"/>
6 - 9 - 1 - 7 - 4 - 2 - 8		<input type="radio"/>	<input type="radio"/>

WAIS-IV Digit Span

Forwards



Administer Trial 1 and Trial 2 of each item. Proceed to the next item if the discontinue criterion has not been met.

Record responses verbatim in the **Response** column. Score **0** or **1** for each trial.

Item 7

Trial	Response	0	1
3 - 8 - 2 - 9 - 6 - 1 - 7 - 4		<input type="radio"/>	<input type="radio"/>
5 - 8 - 1 - 3 - 2 - 6 - 4 - 7		<input type="radio"/>	<input type="radio"/>

Item 8

Trial	Response	0	1
2 - 7 - 5 - 8 - 6 - 3 - 1 - 9 - 4		<input type="radio"/>	<input type="radio"/>
7 - 1 - 3 - 9 - 4 - 2 - 5 - 6 - 8		<input type="radio"/>	<input type="radio"/>



**WAIS-IV Digit Span****Item Administration Backwards**Sample Item

## Trial 1

Say, **Now I am going to say some more numbers, but this time when I stop, I want you to say the numbers backwards. If I say 7 - 1, what would you say?**

Correct response [1 - 7]: Say, **That's right.** Proceed to Trial 2.

Incorrect Response: Say, **That's not quite right. I said 7 - 1, so to say them backwards, you should say 1 - 7.** Proceed to Trial 2.

## Trial 2


Say, **Let's try another one. Remember to say them backwards. 3 - 4.**

Correct response [4 - 3]: Say, **That's right. Let's try some more.** Proceed to Item 1.

Incorrect Response: Say, **That's not quite right. I said 3 - 4, so to say them backwards, you should say 4 - 3. Let's try some more.** Proceed to Item 1.

WAIS-IV Digit Span

Backwards



Administer Trial 1 and Trial 2 of each item. Proceed to the next item if the discontinue criterion has not been met.

Record responses verbatim in the **Response** column. Score **0** or **1** for each trial.

Item 1


Trial	Correct Response	Response	0	1
3 - 1	1-3		<input type="radio"/>	<input type="radio"/>
2 - 4	4-2		<input type="radio"/>	<input type="radio"/>

Item 2

Trial	Correct Response	Response	0	1
4 - 6	6-4		<input type="radio"/>	<input type="radio"/>
5 - 7	7-5		<input type="radio"/>	<input type="radio"/>

WAIS-IV Digit Span

Backwards



Administer Trial 1 and Trial 2 of each item. Proceed to the next item if the discontinue criterion has not been met.

Record responses verbatim in the **Response** column. Score **0** or **1** for each trial.

Item 3


Trial	Correct Response	Response	0	1
6 - 2 - 9	9-2-6		<input type="radio"/>	<input type="radio"/>
4 - 7 - 5	5-7-4		<input type="radio"/>	<input type="radio"/>

Item 4

Trial	Correct Response	Response	0	1
8 - 2 - 7 - 9	9-7-2-8		<input type="radio"/>	<input type="radio"/>
4 - 9 - 6 - 8	8-6-9-4		<input type="radio"/>	<input type="radio"/>

WAIS-IV Digit Span

Backwards



Administer Trial 1 and Trial 2 of each item. Proceed to the next item if the discontinue criterion has not been met.

Record responses verbatim in the **Response** column. Score **0** or **1** for each trial.

Item 5


Trial	Correct Response	Response	0	1
6 - 5 - 8 - 4 - 3	3-4-8-5-6		<input type="radio"/>	<input type="radio"/>
1 - 5 - 4 - 8 - 6	6-8-4-5-1		<input type="radio"/>	<input type="radio"/>

Item 6

Trial	Correct Response	Response	0	1
5 - 3 - 7 - 4 - 1 - 8	8-1-4-7-3-5		<input type="radio"/>	<input type="radio"/>
7 - 2 - 4 - 8 - 5 - 6	6-5-8-4-2-7		<input type="radio"/>	<input type="radio"/>

WAIS-IV Digit Span

Backwards



Administer Trial 1 and Trial 2 of each item. Proceed to the next item if the discontinue criterion has not been met.

Record responses verbatim in the **Response** column. Score **0** or **1** for each trial.

Item 7

Trial	Correct Response	Response	0	1
8 - 1 - 4 - 9 - 3 - 6 - 2	2-6-3-9-4-1-8		<input type="radio"/>	<input type="radio"/>
4 - 7 - 3 - 9 - 6 - 2 - 8	8-2-6-9-3-7-4		<input type="radio"/>	<input type="radio"/>

Item 8

Trial	Correct Response	Response	0	1
9 - 4 - 3 - 7 - 6 - 2 - 1 - 8	8-1-2-6-7-3-4-9		<input type="radio"/>	<input type="radio"/>
7 - 2 - 8 - 1 - 5 - 6 - 4 - 3	3-4-6-5-1-8-2-7		<input type="radio"/>	<input type="radio"/>

## Trail Making Test (TMT)

### Materials

**BEFORE** beginning this assessment, please make sure you have the following available:

- A stopwatch
- (4) TMT worksheets:
  - Part A Sample Sheet
  - Part A Test Sheet
  - Part B Sample Sheet
  - Part B Test Sheet
- (2) Sharpened pencils

### General Instructions

This test has two parts: **Part A** and **Part B**. The score for each part of the test is the total time required for completion **in seconds**.

The key points to administration of this test are ensuring that the participant understands the instructions and that you immediately point out any errors that are made.

The maximum time allowed for each part is **300 seconds (5 minutes, 0 seconds)**.

The participant should understand that, when taking this test, it is important to work as quickly as possible and try to avoid making mistakes. The most common examiner error in administering this test is not correcting mistakes quickly and efficiently.

## Trail Making Test (TMT)

### Part A: Sample

Place the **Part A Sample** sheet flat on the table directly in front of the participant.  
Give the participant a pencil and say:

**On this page are some numbers** [point]. **Begin at number 1** [point to 1] **and draw a line from 1 to 2** [point to 2], **2 to 3** [point to 3], **3 to 4** [point to 4] **and so on, in order, until you reach the end** [point to the circle marked 'end']. **Draw the lines as fast as you can. Ready? Begin!**

If the participant completes the sample item correctly in a manner demonstrating that he/she understands what to do, say:

**Good! Let's try the next one.** [Select the tick box below and proceed directly to the Test trial using the link provided.]



**If they can do the task, select the tick box below and continue.**

- ☐ The participant completed Part A  
Sample correctly.

If the participant makes a mistake on the sample, **immediately** point to the error and explain why it is incorrect.

[Refer to the next page to find examples of possible explanations.]

## Trail Making Test (TMT)

### Part A: Sample

Examples of possible explanations:

1. **You started with the wrong circle. This is where you start** [point to number 1].
2. **You skipped this circle\*** [point to the circle the participant omitted]. **You should go from number 1** [point] **to 2** [point], **2 to 3** [point to 3], **and so on, until you reach the circle marked 'end'** [point].

\*(If it is clear that the participant intended to touch a circle but missed it, do not count it as an omission. Remind the participant, however, to be sure to touch each of the circles when drawing the connecting lines.)

If the participant cannot complete Sample A, take his/her hand and guide the pencil, using the eraser end, through the trail. Then return the pencil to the participant with the point down and say:

**Now you try it. Remember, begin at number 1** [point] **and draw a line from 1 to 2** [point to 2], **2 to 3** [point to 3], **3 to 4** [point to 4] **and so on, in order, until you reach the circle marked 'end'** [point]. **Do not skip around, but go from one number to the next in the proper order. Remember to work as fast as you can. Ready? Begin!**

Repeat this procedure until the participant succeeds [**proceed with the Test trial on the next page**] OR it becomes evident that the participant cannot do the task.



**If they cannot do the task, select the tick box below and discontinue the test.**

- ☐ The participant was unable to complete Part A Sample.



## Trail Making Test (TMT)

### Part A: Test Trail

Place the **Part A Test** sheet flat on the table in front of the participant and say:

**On this page are more numbers. Do this the same way. Begin at number 1** [point to 1] **and draw a line from 1 to 2** [point to 2], **2 to 3** [point to 3], **3 to 4** [point to 4], **and so on, in order, until you reach the end** [point]. **Remember to work as fast as you can. Ready? Begin!** [Immediately start timing]



Watch the participant closely in order to catch any errors as soon as they are made.

If the participant makes an error, **immediately** call it to his/her attention and return the participant's pencil to the last correct circle; continue the test from that point and say something like:

**No, go back to here** [point to the last correct circle] **and try again.**



Do NOT stop timing while correcting the participant's error.

Errors contribute to the evaluation of the performance principally by increasing the total performance time.

After the participant completes Part B, take the test sheet and record the time to complete on the next page.

Trail Making Test (TMT)

Part A: Scoring

Record the time to complete (in minutes and seconds format) below.  
The maximum time allowed for this part is **300 seconds (5 minutes, 0 seconds)**.

Part A Completion Time:

Minutes

▼

Seconds

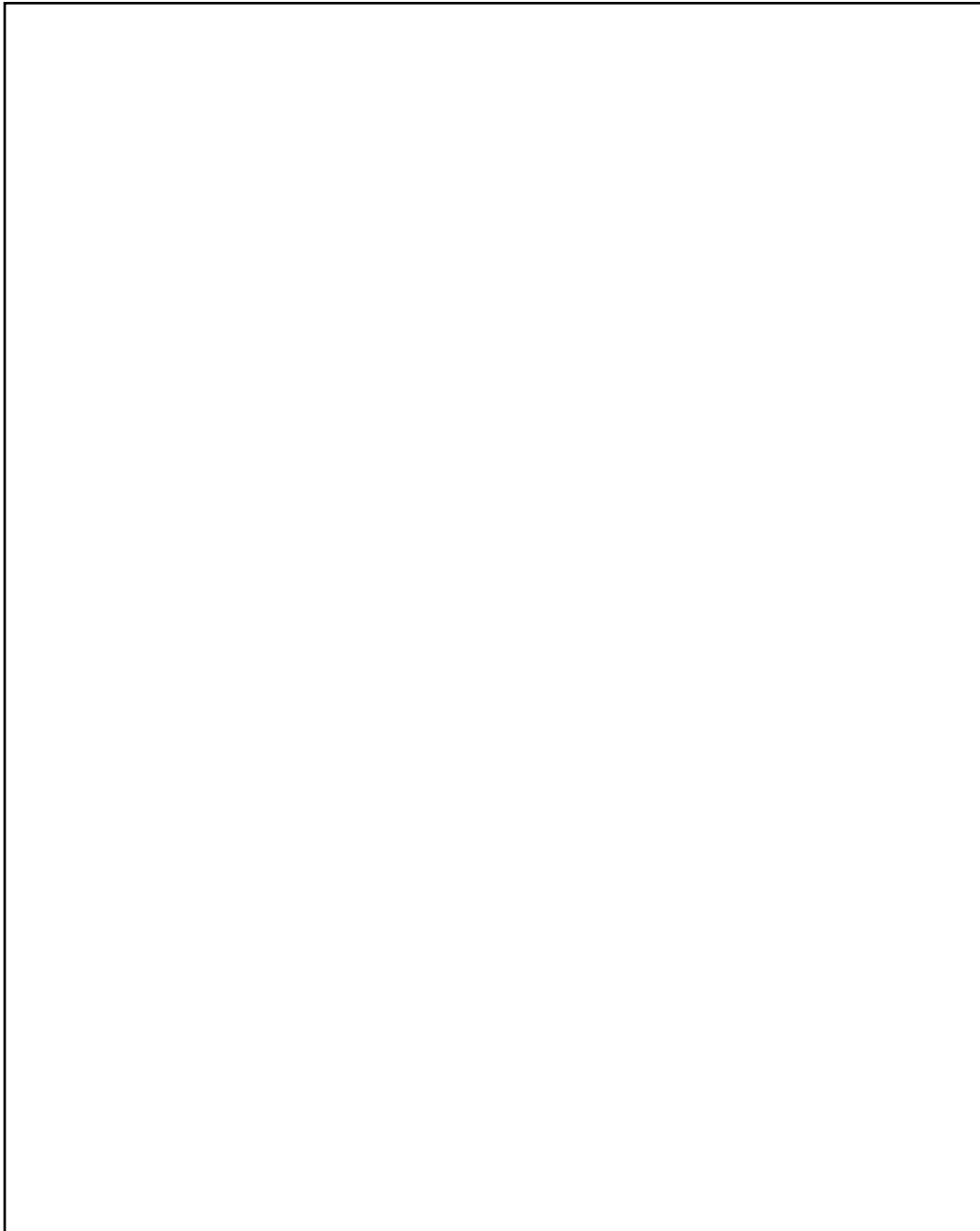
▼

Please select the tick box below to indicate that the participant has attempted the task, but was unable to complete it within the time allowed.

☐ Attempted, but unable to complete within time limit.


**Trail Making Test (TMT)****Part A: Sample Sheet Image Capture**

**AFTER** the assessment is completed,  
please capture image of participant's Sample worksheet below.



**Trail Making Test (TMT)****Part A: Test Sheet Image Capture**

**AFTER** the assessment is completed,  
please capture image of participant's Test worksheet below.



## Trail Making Test (TMT)

### Part B: Sample

Place the **Part B Sample** sheet flat on the table directly in front of the participant.  
Give the participant a pencil and say:

**On this page are both numbers and letters. Begin at number 1** [point to 1] **and draw a line from 1 to A** [point to A], **A to 2** [point to 2], **2 to B** [point to B], **B to 3** [point to 3], **3 to C** [point to C], **and so on, in order, until you reach the end** [point to the circle marked 'end']. **Draw the lines as fast as you can. Ready? Begin!**

If the participant completes the sample item correctly in a manner demonstrating that he/she understands what to do, say:

**Good! Let's try the next one.** [Select the tick box below and proceed directly to the Test trial using the link provided.]



**If they can do the task, select the tick box below and continue.**

- ☐ The participant completed Part B  
Sample correctly.

If the participant makes a mistake on the sample, **immediately** point to the error and explain why it is incorrect.

[Refer to the next page to find examples of possible explanations.]

## Trail Making Test (TMT)

### Part B: Sample

Examples of possible explanations:

1. **You started with the wrong circle. This is where you start** [point to number 1].
2. **You skipped this circle\*** [point to the circle the participant omitted]. **You should go from 1** [point to 1] **to A** [point to A], **A to 2** [point to 2], **2 to B** [point to B], **B to 3** [point to 3], **3 to C** [point to C], **and so on, in order, until you reach the circle marked 'end'** [point].

\*(If it is clear that the participant intended to touch a circle but missed it, do not count it as an omission. Remind the participant, however, to be sure to touch each of the circles when drawing the connecting lines.)

If the participant cannot complete Sample B, take his/her hand and guide the pencil, using the eraser end, through the circles. Then return the pencil to the participant with the point down and say:

**Now you try it. Begin at number 1** [point to 1] **and draw a line from 1 to A** [point to A], **A to 2** [point to 2], **2 to B** [point to B], **B to 3** [point to 3], **3 to C** [point to C], **and so on, in order, until you reach the end** [point to the circle marked 'end']. **Do not skip around, but go from one circle to the next in the proper order. Remember to work as fast as you can. Ready? Begin!**

Repeat this procedure until the participant succeeds [**proceed with the Test trial on the next page**] OR it becomes evident that the participant cannot do the task.



**If they cannot do the task, select the tick box below and discontinue the test.**

- ☐ The participant was unable to complete  
Part B Sample.

## Trail Making Test (TMT)

### Part B: Test Trail

Place the **Part B Test** sheet flat on the table in front of the participant and say:

**On this page there are some numbers and letters. Do this the same way. Begin at number 1** [point to 1] **and draw a line from 1 to A** [point to A], **A to 2** [point to 2], **2 to B** [point to B], **B to 3** [point to 3], **3 to C** [point to C], **and so on, in order, until you reach the end** [point to the circle marked 'end']. **Do not skip around, but go from one circle to the next in the proper order. Remember to work as fast as you can. Ready? Begin!** [Immediately start timing]



Watch the participant closely in order to catch any errors as soon as they are made.

If the participant makes an error, **immediately** call it to his/her attention and return the participant's pencil to the last correct circle; continue the test from that point and say something like:

**No, go back to here** [point to the last correct circle] **and try again.**



Do NOT stop timing while correcting the participant's error.

Errors contribute to the evaluation of the performance principally by increasing the total performance time.

After the participant completes Part B, take the test sheet and record the time to complete on the next page.

Trail Making Test (TMT)

Part B: Scoring

Record the time to complete (in minutes and seconds format) below.  
The maximum time allowed for this part is **300 seconds (5 minutes, 0 seconds)**.

Part B Completion Time:

Minutes

▼

Seconds

▼

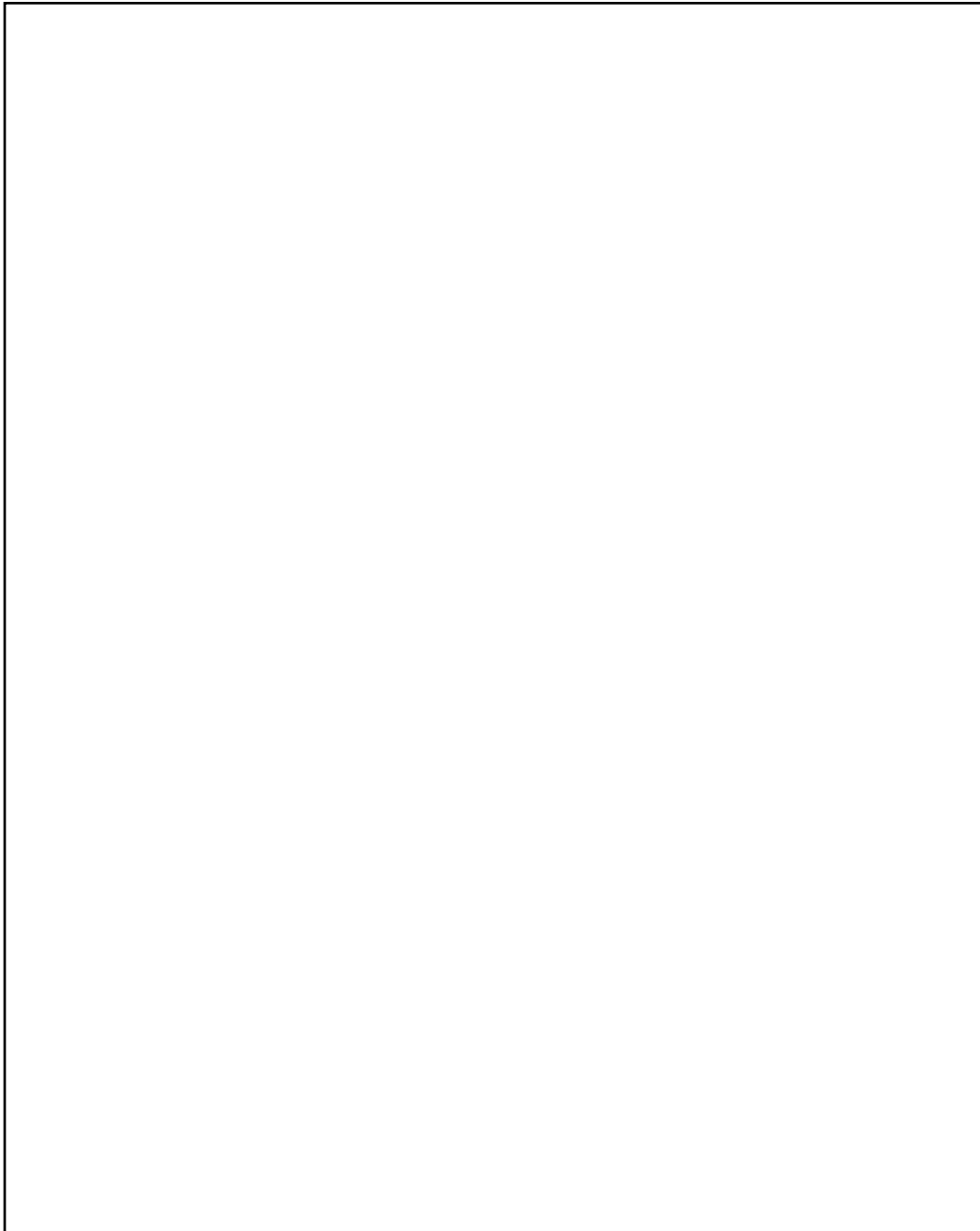
Please select the tick box below to indicate that the participant has attempted the task, but was unable to complete it within the time allowed.

☐ Attempted, but unable to complete within time limit.




**Trail Making Test (TMT)****Part B: Sample Sheet Image Capture**

**AFTER** the assessment is completed,  
please capture image of participant's Sample worksheet below.



**Trail Making Test (TMT)****Part B: Test Sheet Image Capture**

**AFTER** the assessment is completed,  
please capture image of participant's Test worksheet below.



Notes

Summary

<b>D-KEFS Letter Fluency Test</b> Total Correct	--
Trial 1 Correct Responses	--
Trial 2 Correct Responses	--
Trial 3 Correct Responses	--
<b>D-KEFS Category Fluency Test</b> Total Correct	--
Trial 1 Correct Responses	--
Trial 2 Correct Responses	--
<b>WAIS-IV Coding</b> Total Correct	--
<b>WAIS-IV Digit Span</b> Total Correct	--
Digit Span Forwards	--
Digit Span Backwards	--
<b>Trail Making Test (TMT)</b>	
Part A Sample Completed?	--
Part A Completion Time	--
Part B Sample Completed?	--
Part B Completion Time	--

# Signature History

## Completed and Signed by

Name	Date/Time (UTC)
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## Edited and Signed by

Version	Name	Date/Time (UTC)
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