# Neuropsychological Assessment Procedure Training: Documentation and Scoring

LIMBIC-CENC, Prospective Longitudinal Study

#### Plan

#### Materials

- Forms
- Reference manuals and resources

#### 2. General recommendation

- Documentation procedure
- Scoring procedure

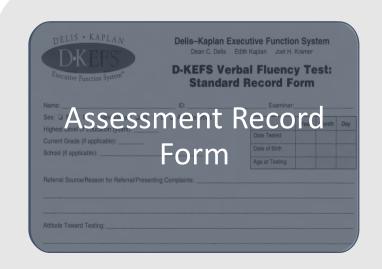
#### 3. Neuropsychological assessment procedure

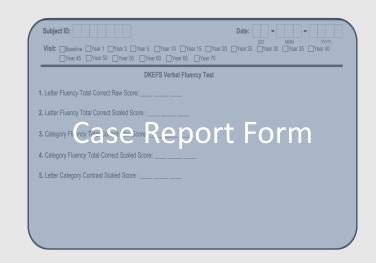
- Brief Visuospatial Memory Test, Revised (BVMT-R)
- Grooved Pegboard (GPB)
- Trail-Making Test (TMT)
- Delis-Kaplan Executive Function System (D-KEFS)
- Wechsler Adult Intelligence Scale, Fourth Edition (WAIS-IV)
- California Verbal Learning Test, Second Edition (CVLT-II)

# Materials

#### Materials: Forms

• 3 types of document are employed for data collection and capture:



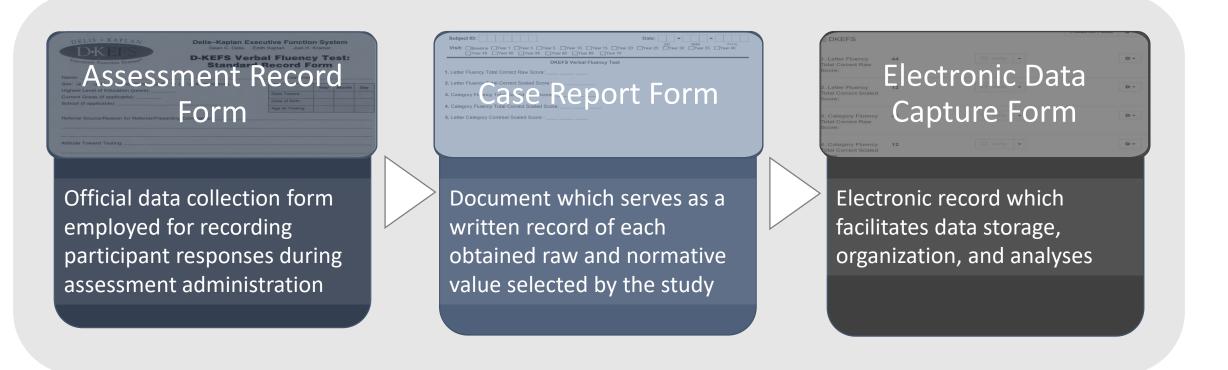




#### Materials: Forms

## Description

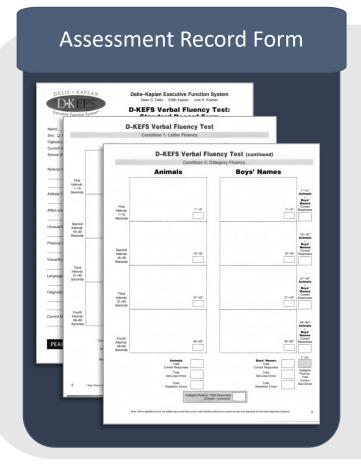
 As each document serves a distinct purpose, the forms are typically completed according to a particular sequence

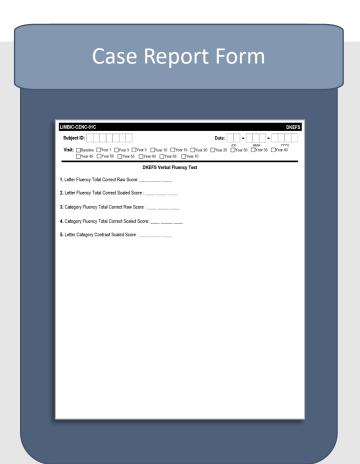


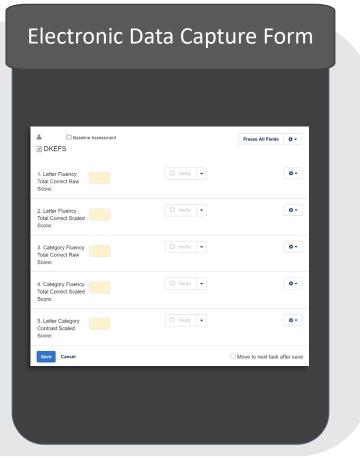
#### Materials: Forms

# Sample

**D-KEFS** assessment documentation







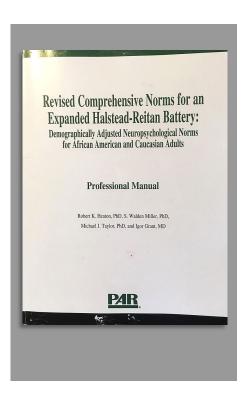
#### Materials: Reference manuals and resources

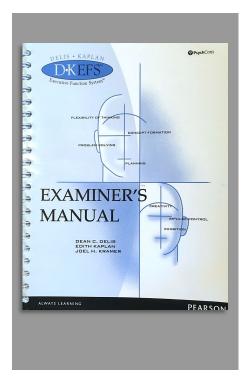
**GPB, TMT** 

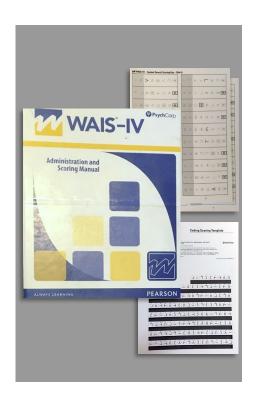


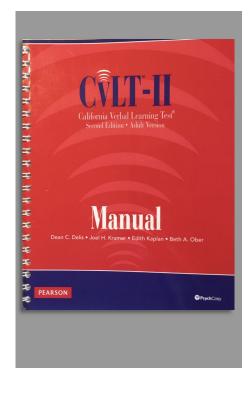
**WAIS-IV** 

CVLT-II









# General recommendation

# General recommendation: Documentation procedure

#### **Essential information**

**Battery identification**: the following details must be recorded upon each completed Record Form cover page and CRF

- Participant ID
- **Visit** detail:
  - <u>Type</u> (e.g., Baseline, Year-15 Comprehensive, etc.)
  - <u>Date</u>
- Examiner initials

**Demography**: for each assessment, the Record Form or CRF must reflect the specific **demographic information** that is **required for scoring** of the assessment, which may include 1 or multiple details from the options indicated as follows

Age
 Sex
 Race
 Education

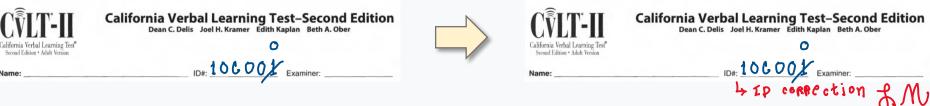
# General recommendation: Documentation procedure

#### **Notation**

**Extraneous marks**: any instance of extraneous marking resulting from revision or mistake must be accompanied by an **appropriate explanation** and **examiner initials**; common reasons for extraneous marking and proper notation are indicated as follows

• Self-corrected response:





**Irregular procedure**: any instance of irregular procedure must be reflected by the source documentation and Reliability Code form

# General recommendation: Documentation procedure

#### Form completion

**Record Form**: each completed Record Form should serve as a detailed account of the events that occurred during assessment administration and data collection, as well as provide clear justification for credit assigned during scoring

- **Participant response**: <u>all participant responses produced during data collection must be thoroughly and accurately reported</u>
  - **Abbreviation**: responses abbreviated during assessment administration must be completed to finalize source documentation
- **Credit assignment**: explicit indication of credit assignment, as well as identification of incorrect responses
  - Totals: all fields provided for assessment, trial, and condition totals should be completed

**Case Report Form** (CRF): each required CRF must be completed entirely, reflecting a value for every variable presented

• Absent value: any instance of absent data must be accompanied by explanation of reasoning

# General recommendation: Scoring procedure

#### Data quality assurance

**Regulation**: review the information, procedure, and recommendation provided by each assessment manual to ensure comprehensive understanding of assessment regulation

Common types of assessment regulation:

- Correct response versus incorrect response
  - Incorrect response types
- Time limit
- Discontinue limit
- Raw score and normative score procedure

**Secondary review**: following generation of scores, conduct secondary review to ensure data accuracy

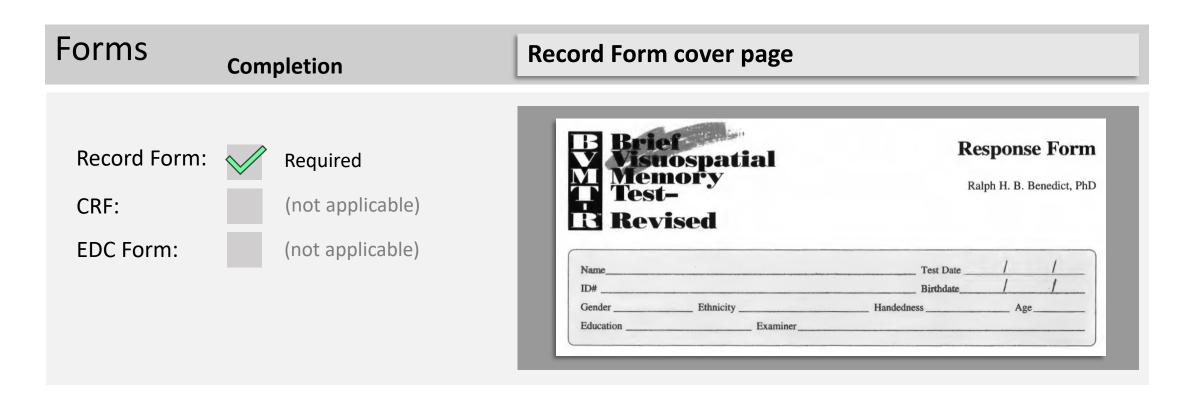
# Neuropsychological assessment procedure

#### Neuropsychological assessment procedure

## **BVMT-R**

Brief Visuospatial Memory Test, Revised

## BVMT-R: Documentation procedure



# BVMT-R: Documentation procedure

#### Demography

Variable	Value description
Age	<ul> <li># years, and 1+ of the following options:</li> <li># months since recent birthday</li> <li># = 6 months: + # days</li> <li>Date of birth (DOB)</li> </ul>

#### Record Form cover page

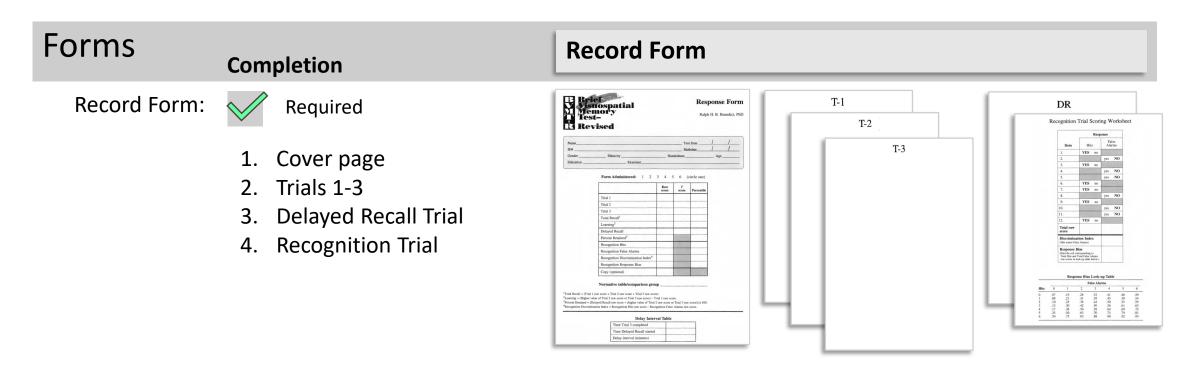
**Completion required** 

B Boly Vis Mei Tes R Rev	nospatial mory t_	Response For
		Test Date / /
Name		Test Date / / Birthdate / f
Name	Ethnicity	1

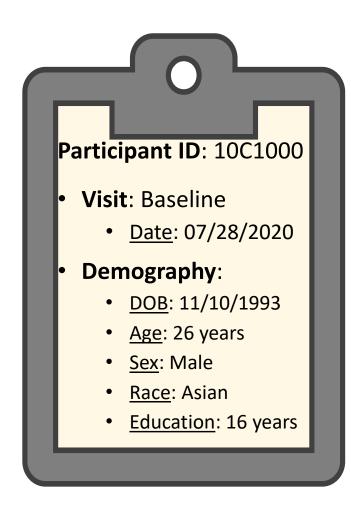
## BVMT-R: Scoring procedure

#### Central scoring submission

- 1. <u>Finalize</u> source documentation: ensure that the BVMT-R Record Form cover and response pages are complete, including all documents indicated as follows
- 2. Scan: scan the finalized source documentation
- 3. <u>Submit</u>: submit the scanned source documentation for central scoring through upload to the LIMBIC-CENC website SFTP (<a href="https://sftp.limbic-cenc.org/">https://sftp.limbic-cenc.org/</a>)

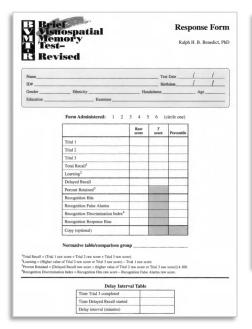


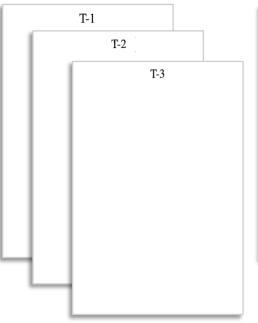
#### BVMT-R: Practice

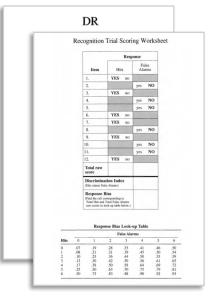


- Complete the appropriate sections of the BVMT-R Record Form with the participant information provided, and explain the requirements for completion of each page
- Describe the submission process for central scoring

#### **Record Form**







# BVMT-R: Practice 1 Sample

Complete the appropriate sections of the BVMT-R Record Form with the participant information provided, and explain the requirements for completion of each page

T1, T2, T3, DR forms: **Participant responses** 

Cover, Recognition forms: **Examiner completion** 

Participant ID: 10C1000

Visit: Baseline

• <u>Date</u>: 07/28/2020

Demography:

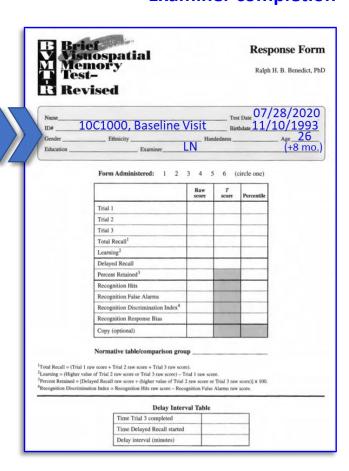
DOB: 11/10/1993

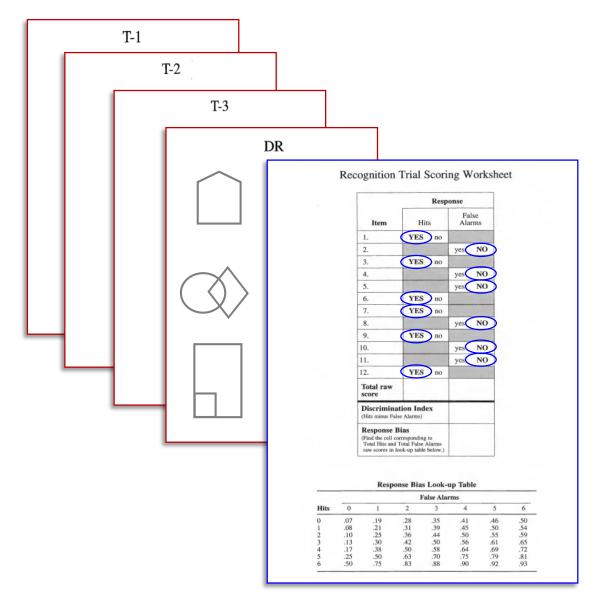
Age: 26 years

• Sex: Male

Race: Asian

Education: 16 years

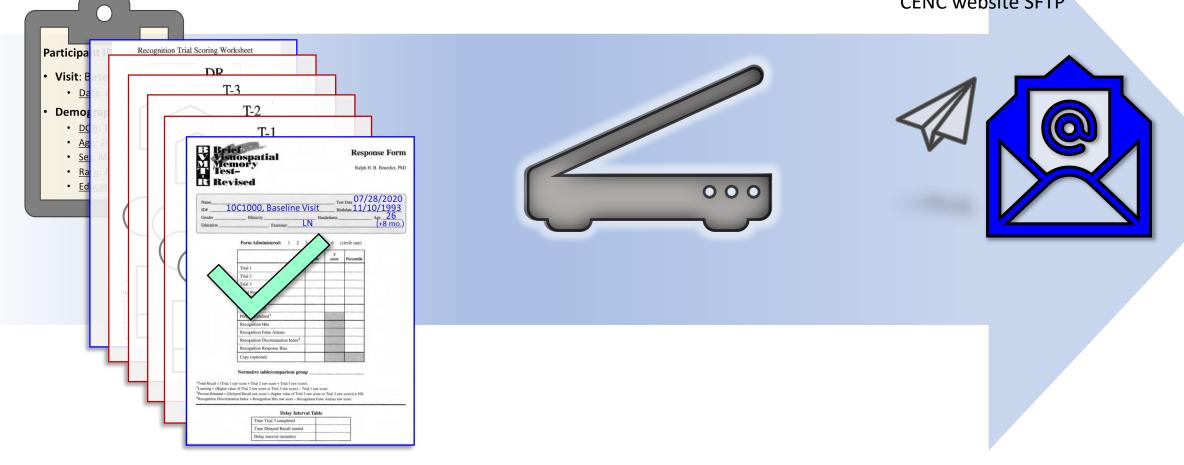




# BVMT-R: Practice 2 Sample

Describe the submission process for central scoring

- **1. Finalize** source documentation
- **Scan** finalized source documentation
- Submit scanned assessment for central scoring through upload to LIMBIC-CENC website SFTP

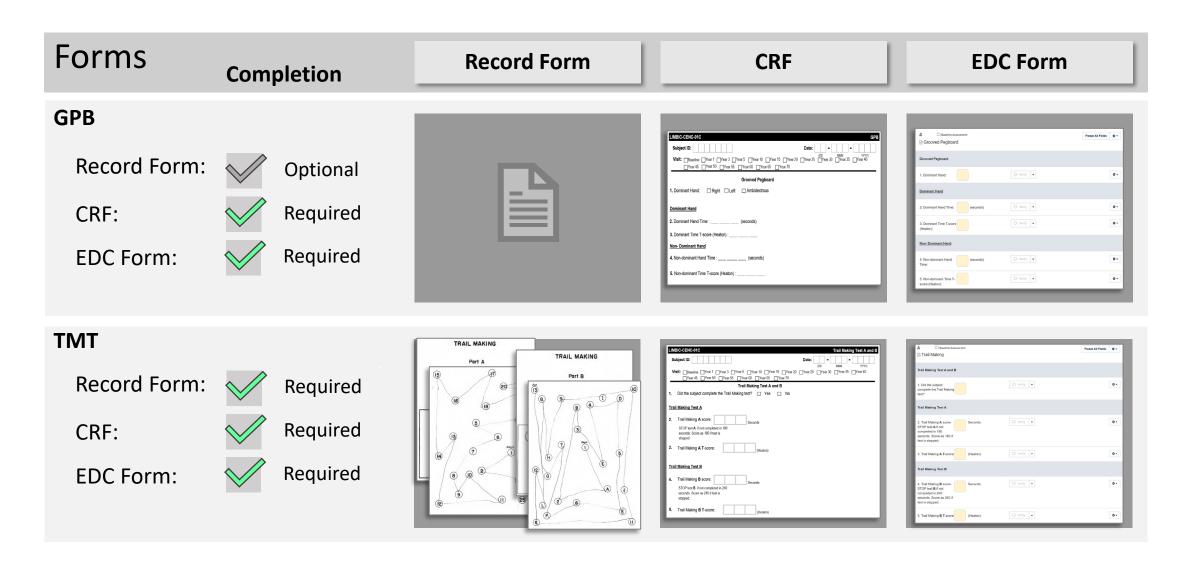


#### Neuropsychological assessment procedure

## **GPB & TMT**

Grooved Pegboard & Trail-Making Test

# GPB, TMT: Documentation procedure



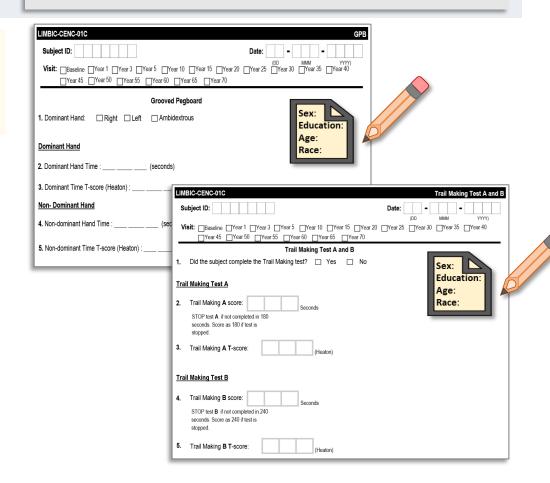
# GPB, TMT: Documentation procedure

#### Demography

**Source documentation**: GPB and TMT forms commonly do not include fields for reporting demographic information; therefore, demography should be written within the empty space of the **GPB** or **TMT CRF** 

Variable	Value description
Sex	Selection: • Male • Female
Education	# years
Age	# years
Race	Selection: • Caucasian • African American

#### **CRF**



# GPB, TMT: Documentation procedure

#### Demography

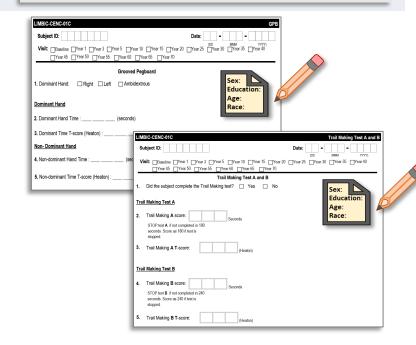
#### Normative score table determination: special considerations

- Education: calculation should be based upon the equivalent standard degree

  (e.g., 2 Associate degrees may require 16 years of education, but should be reported as 14 years to reflect an Associate degree, rather than a Bachelor degree)
- Race: only Caucasian and African American normative values are included by the manual; therefore, African American normative values should be referenced for participants that do <u>not</u> identify Caucasian as the race they <u>most closely</u> identify with. Please refer to Q4 of the <u>Enrollment Demographics</u> form in the Medidata EDC.

Variable	Value description	Normative score table determination:
Sex	Selection: • Male • Female	> Must be specified
Education	# years	Must reflect equivalent standard degree
Age	# years	
Race	Selection:  Caucasian African American	Caucasian only All races beyond Caucasian

#### **CRF**



**Process: Summary** 

**1. Raw score**: completion time (seconds)

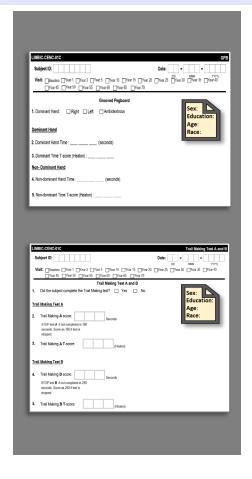
2. Scaled score: locate the corresponding Scaled score value under Appendix C (pages 88-89) of the GPB & TMT manual

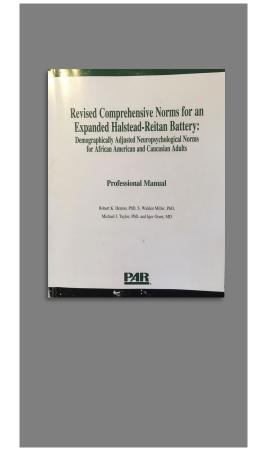
#### 3. T-score:

- A. Normative score table determination: identify the appropriate normative score table to employ from Appendices D-E (pages 92-621), based upon the demographic information collected from the participant
- **B.** T-score retrieval: locate the T-score value that corresponds with each Scaled score

**CRF** 

Manual

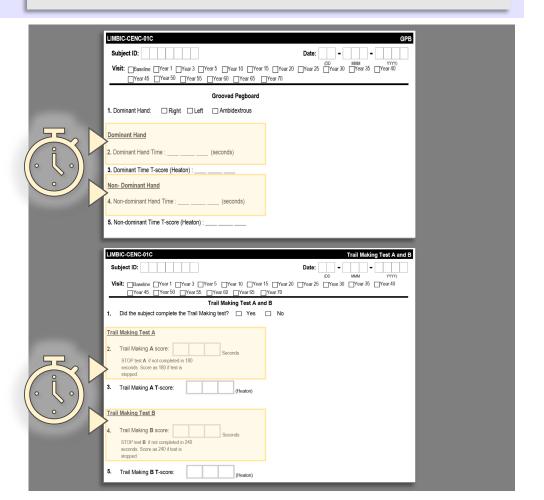


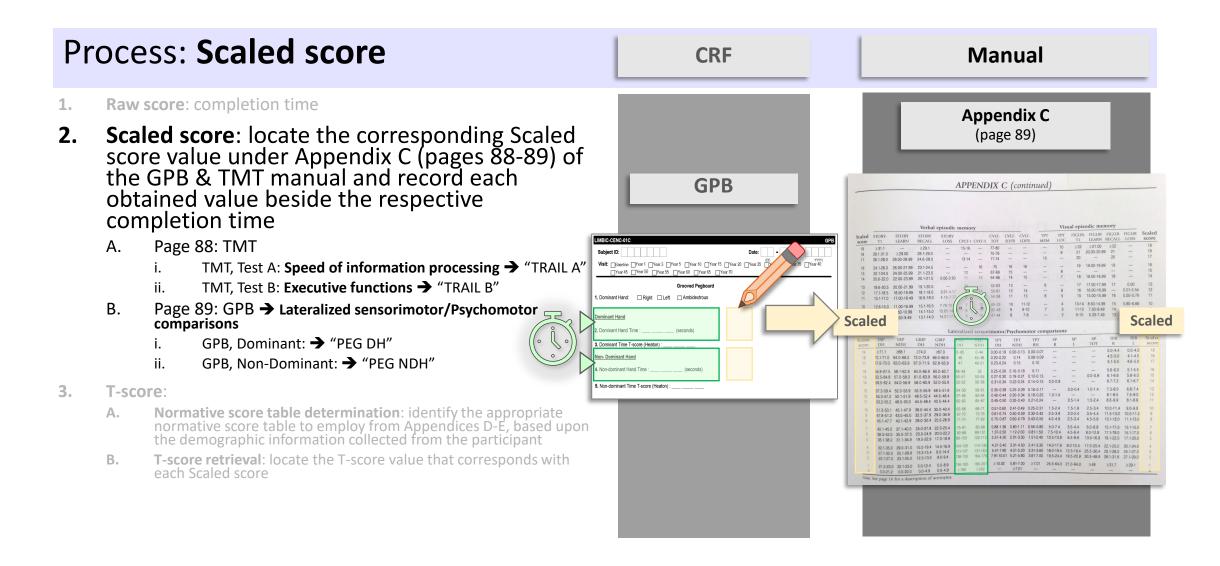


#### Process: Raw score

- **1.** Raw score: completion time (seconds)
- 2. Scaled score: locate the corresponding Scaled score value under Appendix C of the GPB & TMT manual
- 3. T-score:
  - A. Normative score table determination: identify the appropriate normative score table to employ from Appendices D-E, based upon the demographic information collected from the participant
  - **B.** T-score retrieval: locate the T-score value that corresponds with each Scaled score

#### **CRF**





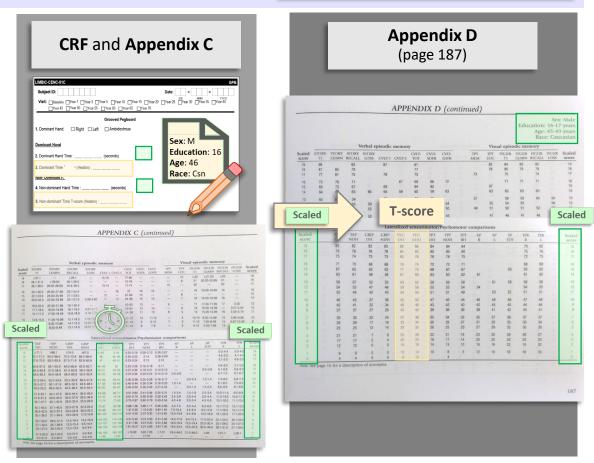
Process: T-score Manual **CRF Appendix D** Raw score: completion time **GPB** (page 186) **Scaled score**: locate the corresponding Scaled score value under Appendix C of the GPB & TMT manual APPENDIX D (continued) 3. T-score: Sex: Male Education: 16-17 years Age: 45-49 years Normative score table determination: identify the Race: Caucasian Sex: M Dominant Hand appropriate normative score table to employ from Education: 16 Age: 46 Appendices D-E (pages 92-621), based upon the Race: Csn demographic information collected from the Participant ID: 10C1001 participant Visit: Y5 Comprehensive Date: 07/28/2020 T-score retrieval: locate the T-score value that Demography: · DOB: 04/01/1974 corresponds with each Scaled score Age: 46 years · Race: Caucasian · Education: 16 years

#### Process: T-score

- **1.** Raw score: completion time
- 2. Scaled score: locate the corresponding Scaled score value under Appendix C of the GPB & TMT manual

#### 3. T-score:

- A. Normative score table determination: identify the appropriate normative score table to employ from Appendices D-E, based upon the demographic information collected from the participant
  - **T-score retrieval**: locate the T-score value that corresponds with each Scaled score
    - i. TMT, Test A: **Speed of information processing** → "TRAIL A"
    - ii. TMT, Test B: **Executive functions** → "TRAIL B"
    - iii. GPB, Dominant: Lateralized sensorimotor/Psychomotor comparisons → "PEG DH"
  - iv. GPB, Non-Dominant: Lateralized sensorimotor/Psychomotor comparisons → PEG NDH"



Manual



## GPB, TMT: Practice

Participant ID: 10C1000

• **Visit**: Baseline

• Date: 07/28/2020

Demography:

• DOB: 11/10/1993

Age: 26 years

• Sex: Male

Race: Asian

• Education: 16 years

Participant ID: 01C1000

Visit: Baseline

Dominant hand: Right Non-dominant hand: Left

GPB:

Completed: VDH



• DH Time: 102 seconds

• NDH Time: 97 seconds

TMT:

Completed: Test A Test B

• Test A Time: 32 seconds

• Test B Time: 92 seconds

- Complete the appropriate sections of the GPB and TMT CRFs with the participant and assessment information provided
- Obtain each T-score and finalize the documentation

#### CRF

LIMBIC-CENC-01C GPB		
Subject ID:	LIMBIC-CENC-01C Trail Making Test A and E	
Visit:         Baseline         Year 1         Year 3         Year 5         Year 10         Year 15         Year 2           Year 45         Year 50         Year 65         Year 60         Year 65         Year 70	(DD MMM YYYY)	
Grooved Pegboard	Visit: ☐Baseline ☐Year 1 ☐Year 3 ☐Year 5 ☐Year 10 ☐Year 15 ☐Year 20 ☐Year 25 ☐Year 30 ☐Year 35 ☐Year 40 ☐Year 45 ☐Year 55 ☐Year 60 ☐Year 65 ☐Year 70 ☐Year 55 ☐Year 67 ☐Yea	
1. Dominant Hand: ☐ Right ☐ Left ☐ Ambidextrous	Trail Making Test A and B  1. Did the subject complete the Trail Making test? ☐ Yes ☐ No	
Dominant Hand	Trail Making Test A	
2. Dominant Hand Time : (seconds)	2. Trail Making A score: Seconds	
3. Dominant Time T-score (Heaton) :	STOP test A if not completed in 180 seconds. Score as 180 if test is	
Non- Dominant Hand		
4. Non-dominant Hand Time : (seconds)	3. Trail Making A T-score: (Heaton)	
5. Non-dominant Time T-score (Heaton) :	Trail Making Test B	
	4. Trail Making B score:  STOP test B if not completed in 240 seconds. Score as 240 if test is stopped.	
	5. Trail Making B T-score: (Heaton)	
Dominant Hand  2. Dominant Hand Time:	1. Did the subject complete the Trail Making test?  \ Yes  \ No  Trail Making Test A  2. Trail Making A score:	

# GPB: Practice 1 Sample

Participant ID: 10C1000 • Visit: Baseline Participant ID: 01C1000 • Date: 07/28/2020 Visit: Baseline Demography: Dominant hand: Right Non-dominant hand: Left • DOB: 11/10/1993 • Age: 26 years GPB: Completed: DH • Sex: Male • DH Time: 102 seconds • Race: Asian • NDH Time: 97 seconds Education: 16 years TMT: Completed: Test A Test B • Test A Time: 32 seconds • Test B Time: 92 seconds

Complete the appropriate sections of the GPB and TMT CRFs with the participant and assessment information provided

	Teal 33	□Year 60 □Year 65 □Year	_	
I. Dominant Hand:	X Right ☐ Left	Grooved Pegboard  ☐ Ambidextrous		Sex: M
Dominant Hand				Education: 16 Age: 26
. Dominant Hand Time	e: <b>102</b>	(seconds)		Race: Asian
3. Dominant Time T-so				
Non- Dominant Hand				
I. Non-dominant Hand	Time :97	(seconds)		
5. Non-dominant Time	T-score (Heaton)			
. Non-dominant Time	1-score (Heaton)			

# TMT: Practice 1 Sample

Participant ID: 10C1000 • Visit: Baseline Participant ID: 01C1000 • Date: 07/28/2020 Visit: Baseline Demography: Dominant hand: Right Non-dominant hand: Left • DOB: 11/10/1993 • Age: 26 years GPB: Completed: VDH • Sex: Male • DH Time: 102 seconds • Race: Asian • NDH Time: 97 seconds Education: 16 years TMT: Completed: Test A Test B • Test A Time: 32 seconds • Test B Time: 92 seconds

Complete the appropriate sections of the GPB and TMT CRFs with the participant and assessment information provided

2	IME	BIC-CENC-01C Trail Making Test A and B
L	Su	bject ID: 10C1000 Date: 28 - JUL - 2020
l.	Vis	it: Maseline
		Trail Making Test A and B
1		Did the subject complete the Trail Making test? ☐ Yes ☐ No
<u> </u>	rail	Sex: M Education: 16
2	2.	Trail Making A score: Seconds Age: 26
l		STOP test <b>A</b> if not completed in 180 seconds. Score as 180 if test is stopped.
3	3.	Trail Making A T-score: (Heaton)
<u> </u>	rail	Making Test B
4	١.	Trail Making B score: Seconds
		STOP test <b>B</b> if not completed in 240 seconds. Score as 240 if test is stopped.
5	5.	Trail Making B T-score: (Heaton)

# GPB: Practice 2 Sample

Participant ID: 10C1000

• Visit: Baseline

• Date: 07/28/2020

• Demography:

• DOB: 11/10/1993

• Age: 26 years

• Sex: Male

• Race: Asian

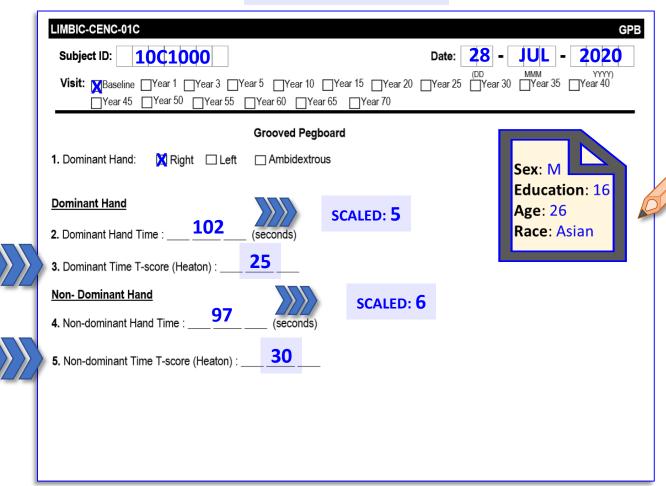
• Education: 16 years

# Participant ID: 01C1000 Visit: Baseline Dominant hand: Right Non-dominant hand: Left GPB: Completed: DH NDH DH Time: 102 seconds NDH Time: 97 seconds TMT: Completed: Test A Test B Test A Time: 32 seconds

• Test B Time: 92 seconds

#### Obtain each T-score and finalize the documentation

**Table**: pages **446-447** 



# TMT: Practice 2 Sample

Participant ID: 10C1000

• Visit: Baseline

• Date: 07/28/2020

Demography:

• DOB: 11/10/1993

• <u>Age</u>: 26 years

• Sex: Male

Race: Asian

• Education: 16 years

Participant ID: 01C1000
Visit: Baseline

Dominant hand: Right
Non-dominant hand: Left

GPB:
Completed: DH NDH

• DH Time: 102 seconds

• NDH Time: 97 seconds

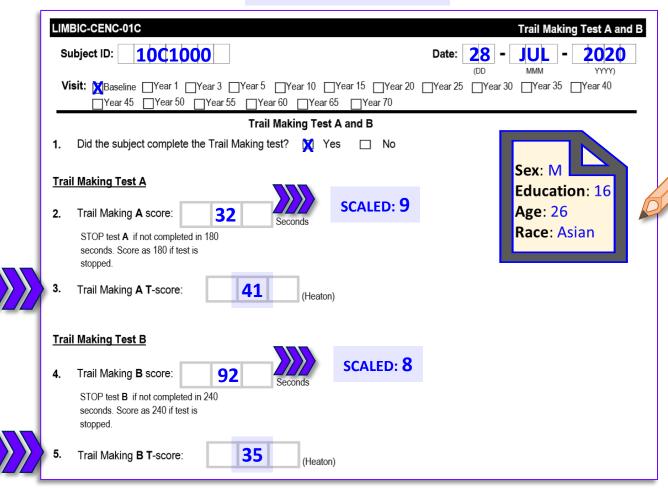
TMT:
Completed: Test A Test B

• Test A Time: 32 seconds

• Test B Time: 92 seconds

#### Obtain each T-score and finalize the documentation

**Table**: pages **446-447** 

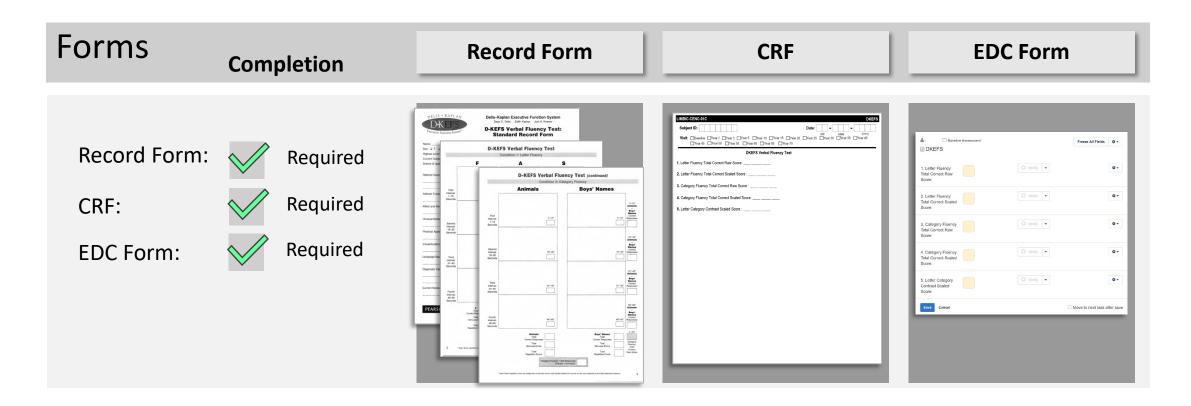


#### Neuropsychological assessment procedure

## **D-KEFS**

Delis-Kaplan Executive Function System

# D-KEFS: Documentation procedure



### D-KEFS: Documentation procedure

### Demography

Variable	Value description
Age	# years

#### **Record Form cover page**

**Completion required** 

D-KEFS D-KEF	aplan Executi C. Delis Edith K S Verbal andard Ro	aplan Joel H.  Fluenc	Kramer y Te	est:	
Name: ID:		Examiner			
Sex: D F D M Handedness: D R D L D Ambidextro	ous [	Examiner	Year	Month	Da
Sex: D F D M Handedness: D R D L D Ambidextro	-	Examiner:	1	Month	Da
Sex: D F D M Handedness: D R D L D Ambidextro			1	Month	Da

### **Process: Summary**

**1. Raw score**: Total Correct

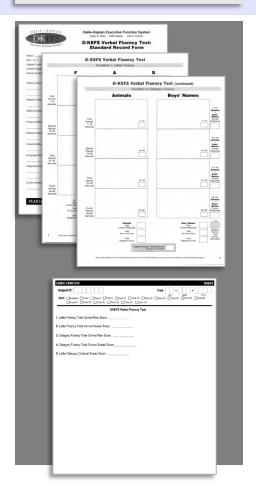
#### 2. Scaled score:

- A. Under Appendix B, Table B.1 and Table B.2 (pages 242-243) of the D-KEFS manual, identify the appropriate column to employ, based upon the demographic information collected from the participant
- B. Locate the Scaled score value that corresponds with each Raw score

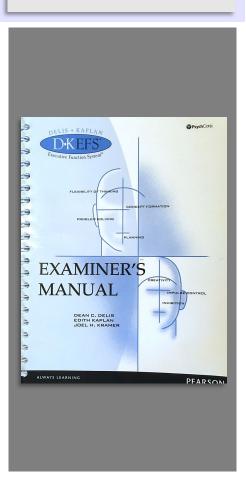
#### 3. Letter-Category Contrast:

- A. Raw score, **formula** = LF Scaled CF Scaled
- B. Scaled score: under Appendix B, Table B.5 (page 246), locate the Scaled score value that corresponds with the Letter-Category Contrast Raw score

#### **Record Form & CRF**

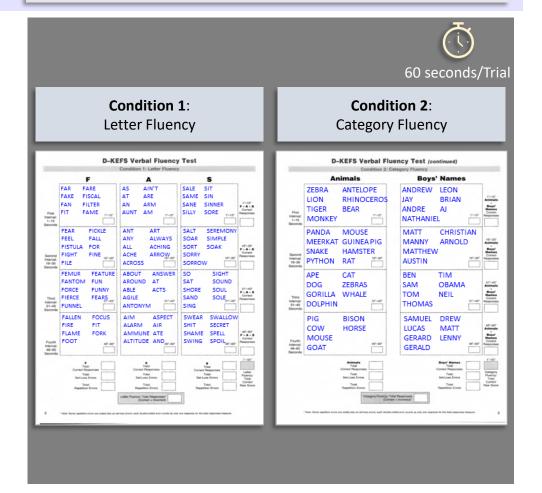


#### Manual



Process: Raw score

- **1. Raw score**: Total Correct
  - **Correct** response:
    - Letter Fluency condition
    - Category Fluency condition
  - > Incorrect response:
    - Repetition error
    - Set-Loss error



#### Process: Raw score

(<u>Note</u>: the following standards only cover <u>general</u> scoring recommendation; prior to conducting scoring or auditing for *any* data, all procedure stipulated by the specified <u>D-KEFS manual sections</u> must be reviewed)

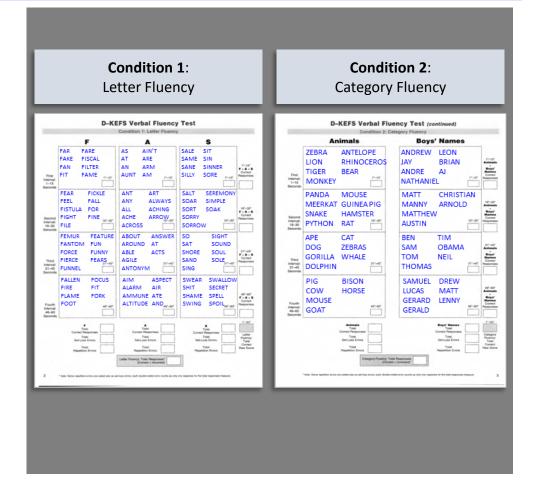
#### **Correct** response:

#### Condition 1: Letter Fluency

- > D-KEFS manual, Verbal Fluency Test, Scoring (pages 62-64):
  - 1. Starts with target letter
  - 2. Not name of person, place, or number
  - 3. Not grammatical variant of previous response from trial
  - 4. Not a repetition

#### Condition 2: Category Fluency

- > D-KEFS manual, Verbal Fluency Test, Scoring (pages 66-67):
  - 1. Member of the target category
  - 2. <u>Not grammatical variant of previous response from trial</u>
  - 3. Not a repetition



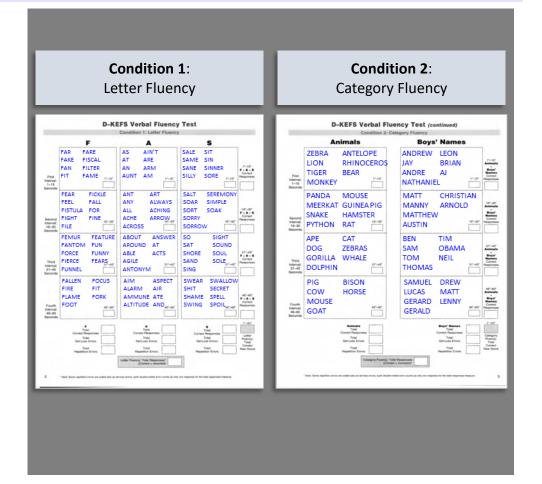
#### Process: Raw score

(<u>Note</u>: the following standards only cover <u>general</u> scoring recommendation; prior to conducting scoring or auditing for *any* data, all procedure stipulated by the specified <u>D-KEFS manual sections</u> must be reviewed)

#### **Incorrect** response:

**Repetition** error: any response that is <u>identically</u> repeated within the 60 seconds of the trial

- Grammatical variants (e.g., snake, snakes) are <u>not</u> repetitions
- > D-KEFS manual, Verbal Fluency Test, Scoring:
  - Condition 1: Letter Fluency (page 65)
  - Condition 2: Category Fluency (page 68)



#### Process: Raw score

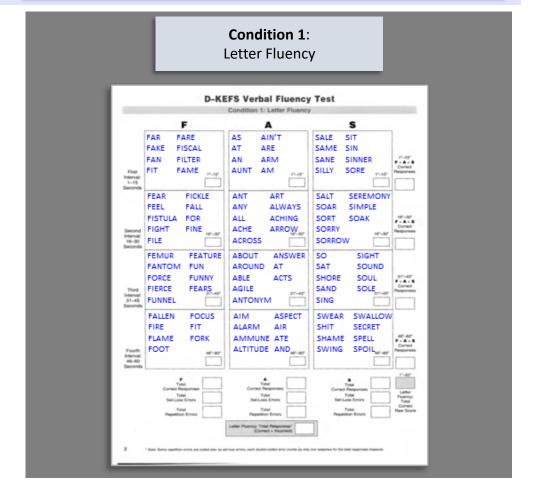
(<u>Note</u>: the following standards only cover <u>general</u> scoring recommendation; prior to conducting scoring or auditing for *any* data, all procedure stipulated by the specified <u>D-KEFS manual sections</u> must be reviewed)

#### **Incorrect** response:

**Set-Loss** error: any response that is not a repetition and violates criteria of the condition trial

#### Condition 1: Letter Fluency

- ➤ D-KEFS manual, Verbal Fluency Test, Scoring (page 65):
  - 1. Does not qualify according to **target letter** regulations
  - 2. Unambiguous name of person, place, or number
  - 3. Grammatical variant
  - 4. Non-word



#### Process: Raw score

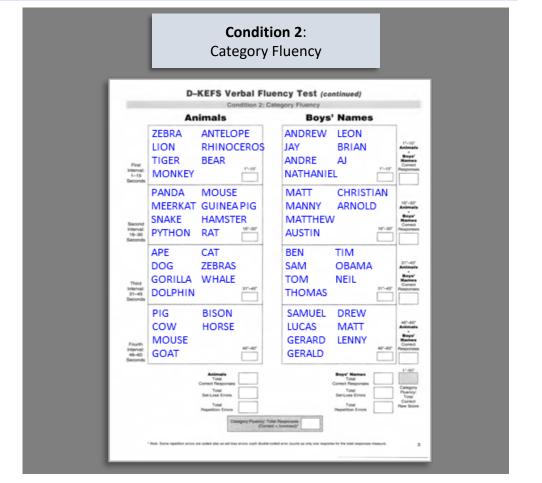
(<u>Note</u>: the following standards only cover <u>general</u> scoring recommendation; prior to conducting scoring or auditing for *any* data, all procedure stipulated by the specified <u>D-KEFS manual sections</u> must be reviewed)

#### **Incorrect** response:

**Set-Loss** error: any response that is not a repetition and violates criteria of the condition trial

#### Condition 2: Category Fluency

- > D-KEFS manual, Verbal Fluency Test, Scoring (page 68):
  - Does not qualify according to target category regulations
  - 2. Grammatical variant
  - 3. Non-word



Process: Raw score

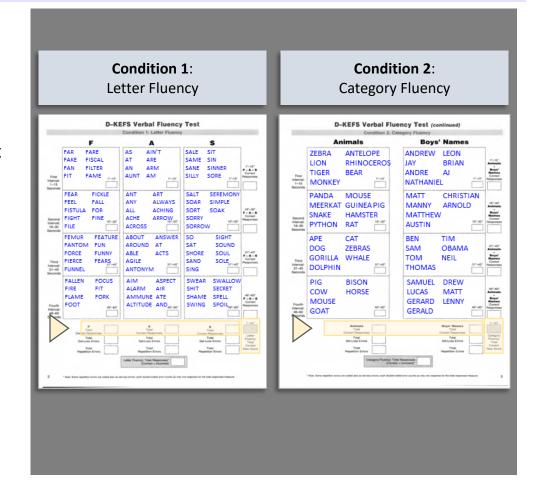
**1.** Raw score: Total Correct

#### Letter Fluency condition

= trial "F" total correct + trial "A" total correct + trial "S" total correct

#### **Category Fluency** condition

= trial "Animals" total correct + trial "Boy Names" total correct

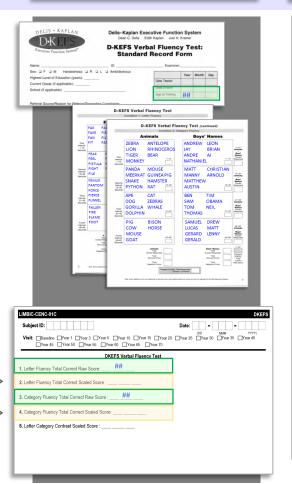


#### Process: Scaled score

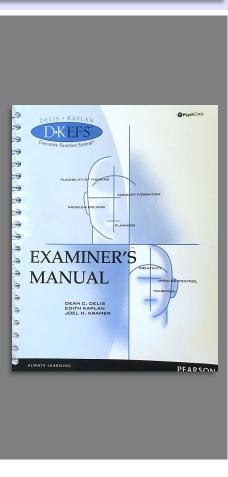
#### 2. Scaled score:

- A. Under Appendix B, Table B.1 and Table B.2 (pages 242-243) of the D-KEFS manual, identify the appropriate column to employ, based upon the demographic information collected from the participant
- B. Locate the Scaled score value that corresponds with each Raw score

#### **Record Form & CRF**



#### Manual



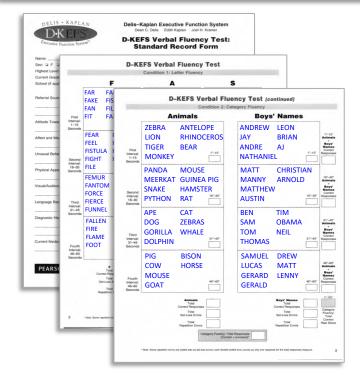
Process: Letter-Category score **CRF** Manual **Letter-Category Contrast:** Raw score = LF Scaled – CF Scaled **Scaled score**: under Appendix B, Table B.5 (page Baseline | Year 1 | Year 3 | Year 5 | Year 10 | Year 15 | Year 20 | Year 25 | Year 30 | Year 35 | Year 40 246), search the "Letter Fluency vs. Category Fluency" column to locate the Scaled score value that corresponds with the Letter-Category Contrast Raw 3. Category Fluency Total Correct Raw Score: score Letter Category Contrast Scaled Score **EXAMINER'S MANUAL** 

### D-KEFS: Practice



- Complete the appropriate sections of the D-KEFS Record Form with the participant information provided
- Generate each Raw Score, then complete the appropriate fields of the Record Form and CRF
- Obtain each Scaled score and finalize the documentation

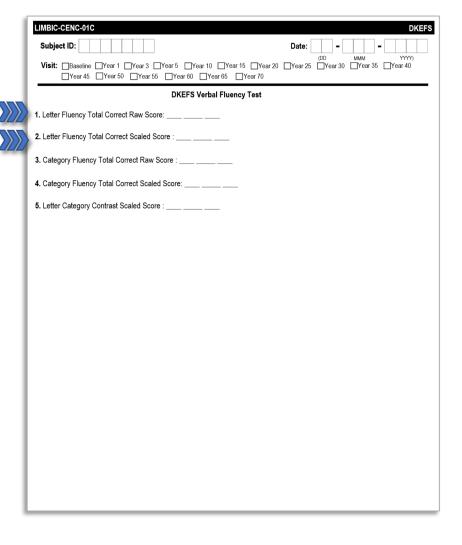
#### **Record Form**



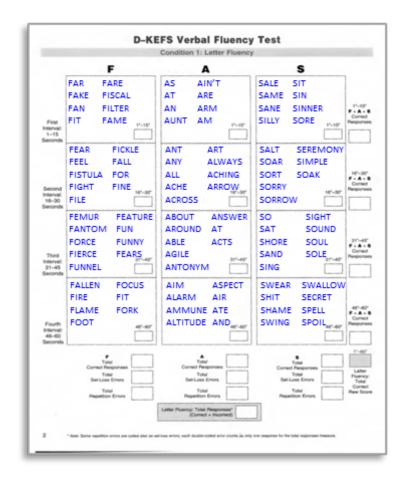
#### **CRF**

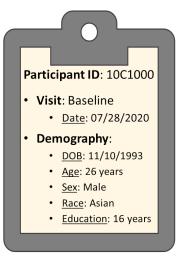
Visit: ☐Baseline ☐Year 1 ☐Year 3 [	Year 5 ☐ Year 10 ☐ Year 15 ☐ Year 2	)   Year 25   Year 30   Year 35   Year
☐Year 45 ☐Year 50 ☐Year 5	5 Year 60 Year 65 Year 70	
	DKEFS Verbal Fluency Test	
1. Letter Fluency Total Correct Raw Sco	re:	
2. Letter Fluency Total Correct Scaled S	Score :	
3. Category Fluency Total Correct Raw	Score :	
4. Category Fluency Total Correct Scale	ed Score:	
5. Letter Category Contrast Scaled Sco	re:	

# D-KEFS: Practice Letter Fluency

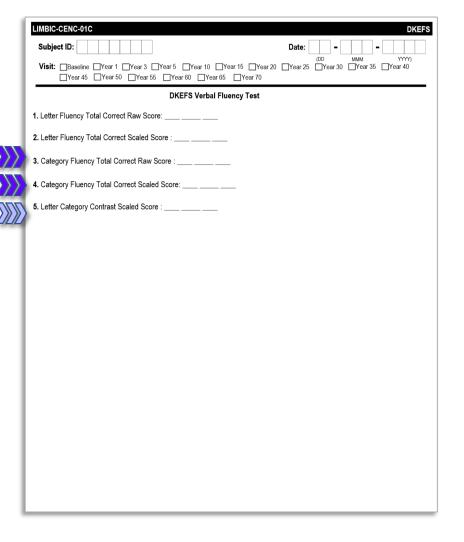


- Complete the appropriate sections of the D-KEFS Record Form with the participant information provided
- 2. Generate each Raw Score, then complete the appropriate fields of the Record Form and CRF
- Obtain each Scaled score and finalize the documentation

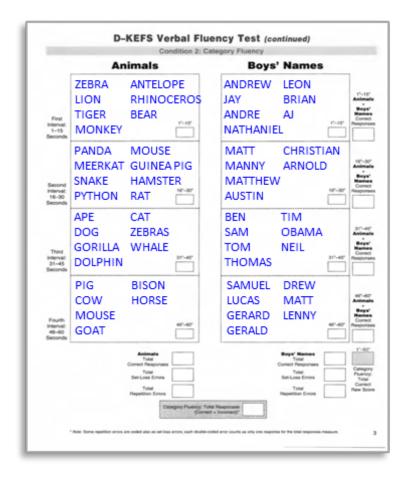


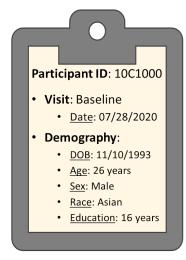


# D-KEFS: Practice Category Fluency



- Complete the appropriate sections of the D-KEFS Record Form with the participant information provided
- Generate each Raw Score, then complete the appropriate fields of the Record Form and CRF
- 3. Obtain each Scaled score and finalize the documentation

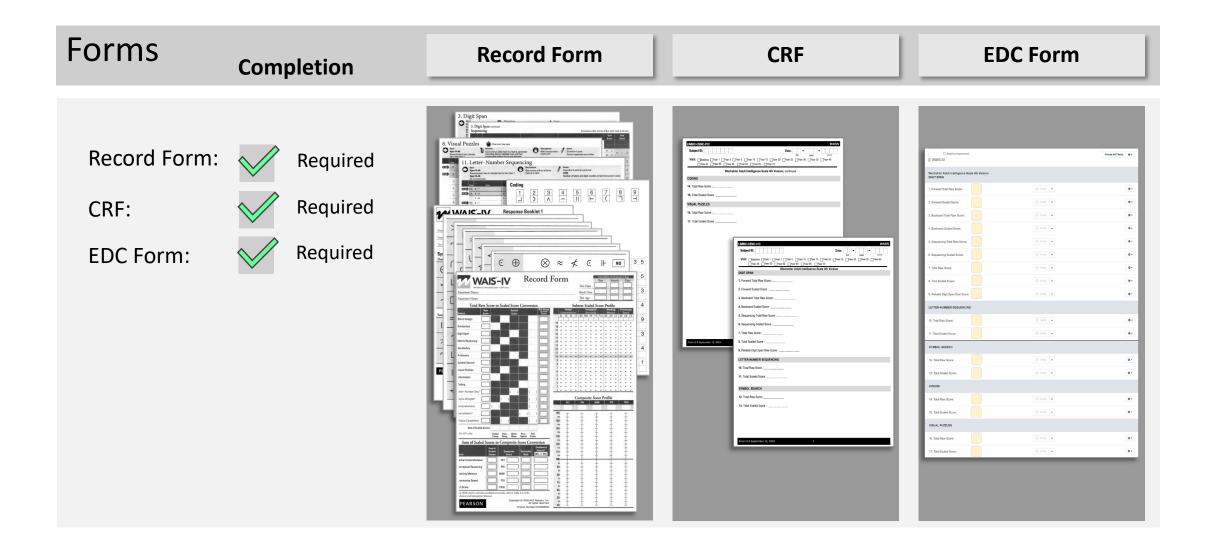


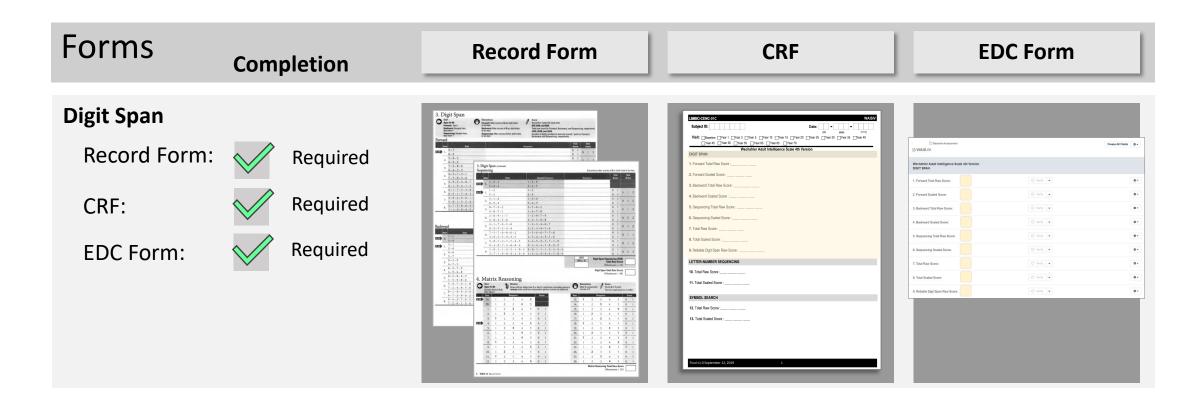


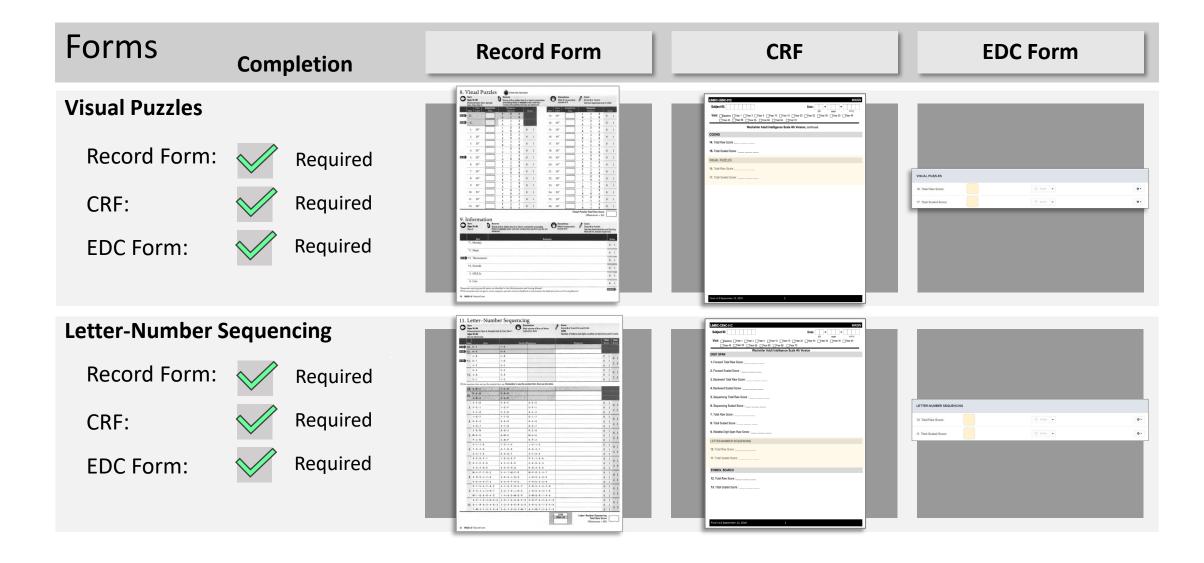
### Neuropsychological assessment procedure

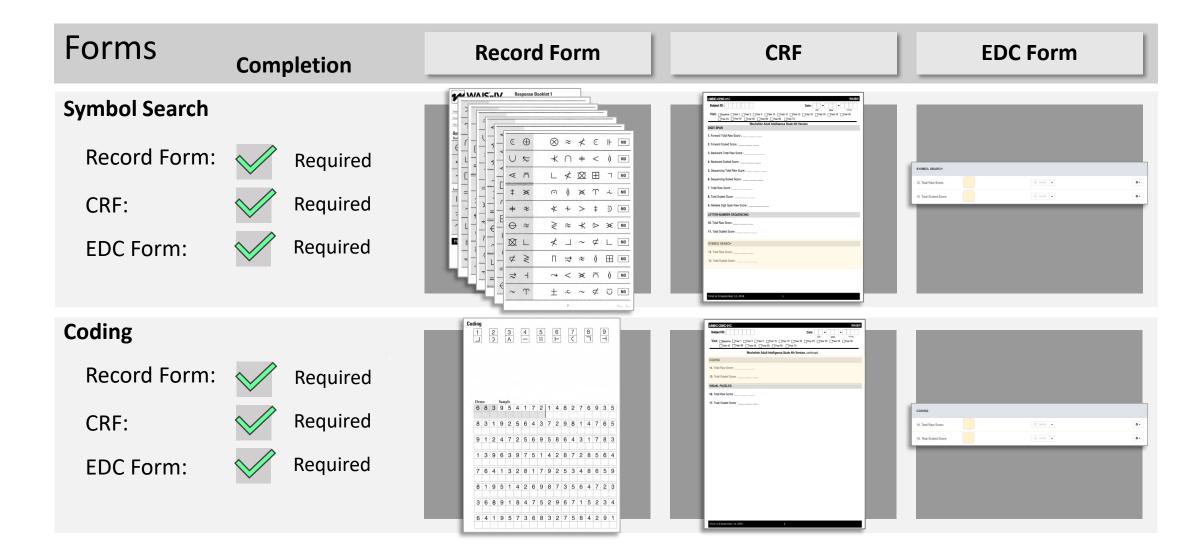
### **WAIS-IV**

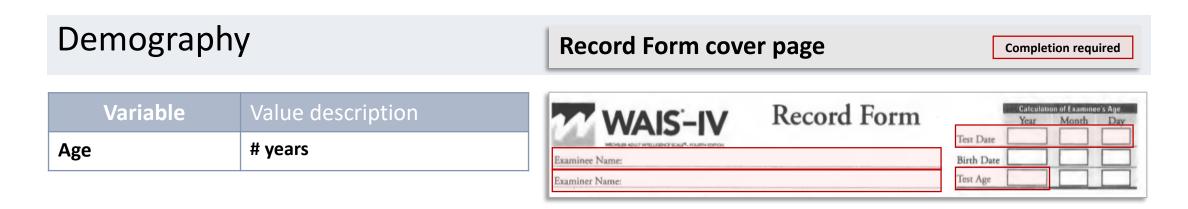
Wechsler Adult Intelligence Scale, Fourth Edition











### WAIS-IV: Scoring procedure

**Process: Summary** 

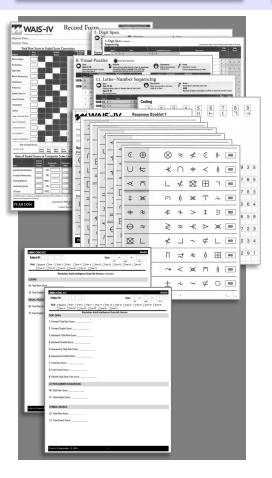
1. Raw score: Total Correct

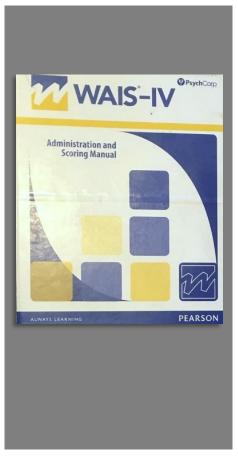
#### 2. Scaled score:

- A. Under Appendix A, Table A.1 (pages 207-218) of the WAIS-IV manual, identify the appropriate table to employ, based upon the demographic information collected from the participant
- B. Locate the Scaled score value that corresponds with each Raw score

**Record Form & CRF** 

Manual





# WAIS-IV, **DS**: Scoring procedure

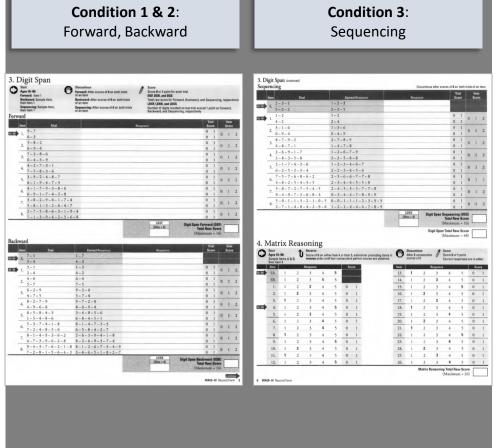
#### Process: Raw score

#### **1. Digit Span**: Total Correct

- ➤ **Forward** condition: Response = "Trial" column → 1/1
- ➤ Backward condition: Response = "Correct Response" column → 1/1
- ➤ **Sequencing** condition: Response = "Correct Response" column → 1/1

Regulation	Procedure description
Discontinue limit	1 Item with 2 consecutive Trial scores of 0





# WAIS-IV, VP: Scoring procedure

Process: Raw score

1. Visual Puzzles: Total Correct

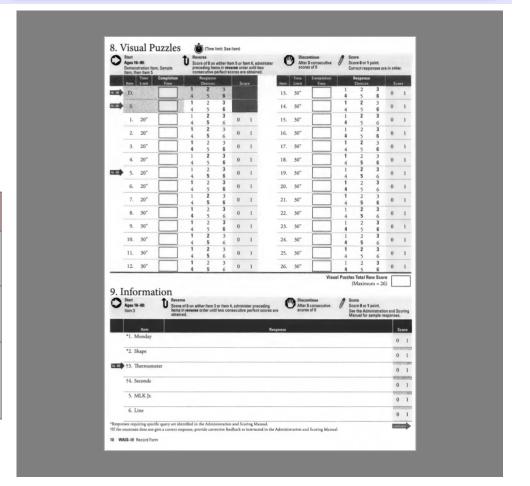
➤ Response = "Response Choices" indicated correct → 1/1

(-	





	Regulation	Procedure description
	Time limit	<ul><li>Item 1-7: 20 seconds</li><li>Item 8-26: 30 seconds</li></ul>
	Discontinue limit	3 consecutive Trial scores of 0
)	Reverse Score of 0 for either Item 5 or 6 →	Administer preceding Items, according to <b>reverse</b> order, until 2 consecutive scores of 1 are obtained



# WAIS-IV, LN: Scoring procedure

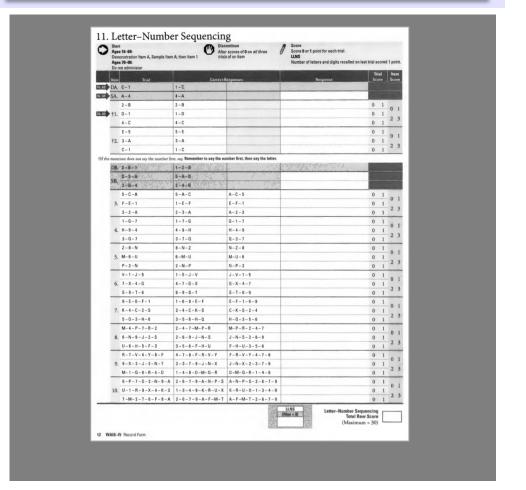
Process: Raw score

#### 1. Letter-Number Sequencing: Total Correct

- ➤ Response = "Correct Response" column → 1/1
  - **Demonstration, Sample, Items 1-2**: Response = column 1
  - Items 3-10: Response = either column 1 or column 2

Regulation	Procedure description
Discontinue limit	1 Item with 3 consecutive Trial scores of 0

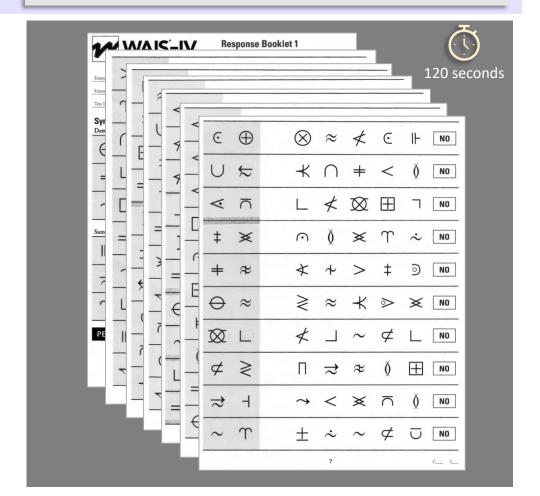




# WAIS-IV, SS: Scoring procedure

#### Process: Raw score

- 1. Symbol Search: Total Correct
  - ➤ Response = Symbol Search Scoring Template → 1/1
  - ➤ Raw score, formula = Correct Incorrect



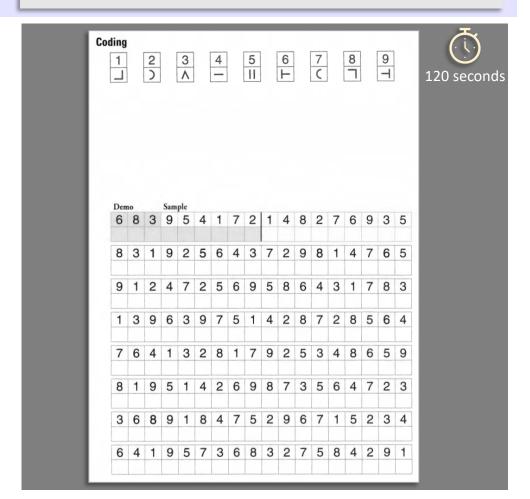
# WAIS-IV, CD: Scoring procedure

Process: Raw score

**1. Coding**: Total Correct

➤ Response = Coding Scoring Template → 1/1

➤ Raw score, formula = Total Response — Incorrect



### WAIS-IV: Scoring procedure

#### Process: Scaled score

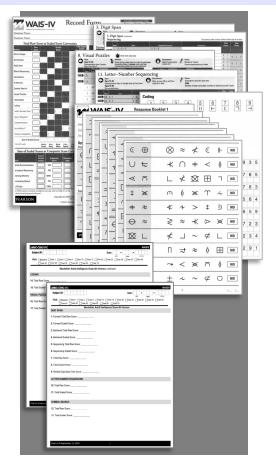
1. Raw score: Total Correct

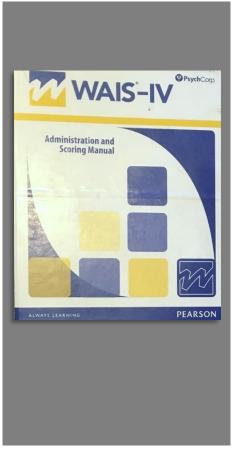
#### 2. Scaled score:

- A. Digit Span, **conditions**: Appendix C, Table C.1 (pages 242-246) of the WAIS-IV manual, identify the appropriate table to employ, based upon the demographic information collected from the participant, then locate the Scaled score value that corresponds with each Raw score
- B. WAIS-IV **Subtests**: Under Appendix A, Table A.1 (pages 207-218) of the WAIS-IV manual, identify the appropriate table to employ, based upon the demographic information collected from the participant
- C. Locate the Scaled score value that corresponds with each Raw score

**Record Form & CRF** 

Manual

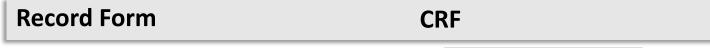


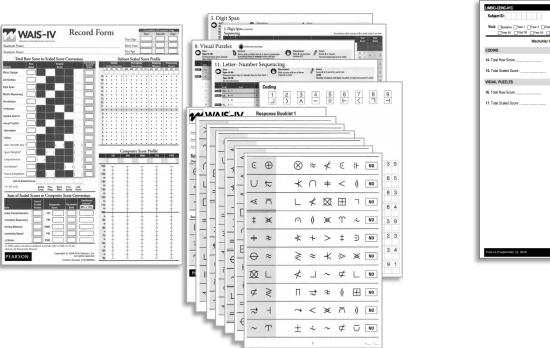


### WAIS-IV: Practice



- Complete the appropriate sections of the WAIS-IV Record Form with the participant information provided
- Generate each Raw Score, then complete the appropriate fields of the Record Form and CRF
- 3. Obtain each Scaled score and finalize the documentation



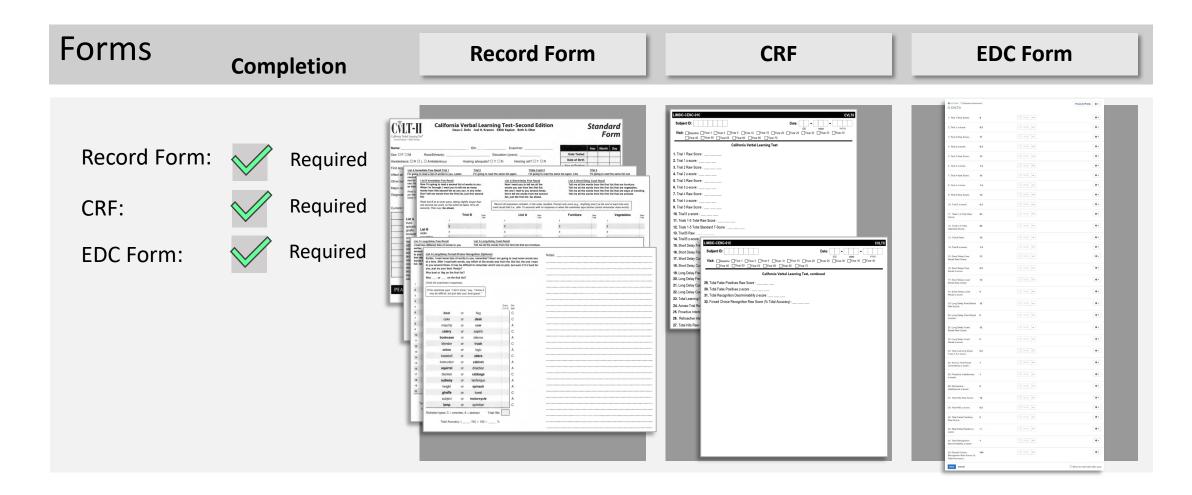


### Neuropsychological assessment procedure

**CVLT-II** 

California Verbal Learning Test, Second Edition

### CVLT-II: Documentation procedure

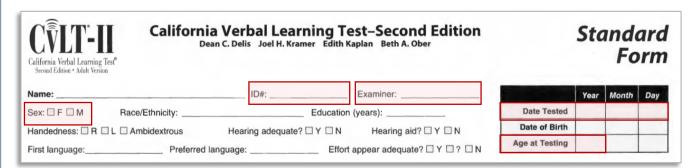


### CVLT-II: Documentation procedure

### Demography

Variable	Value description
Sex	Selection: • Male • Female
Age	# years
Education	# years

#### **Record Form cover page**



**Completion required** 

### **Process: Summary**

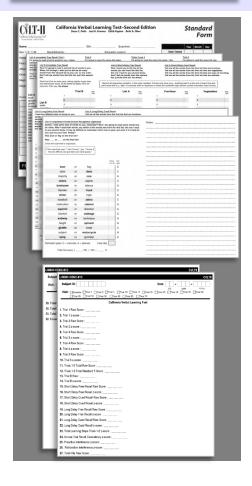
#### 1. Raw score:

- A. Recall trials
- B. Recognition trials

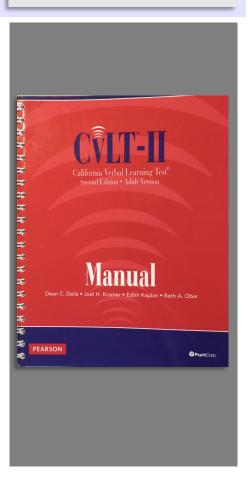
#### 2. Scaled score:

- A. Under Appendix C, Tables C.1-C16 (pages 172-203) of the CVLT-II manual, identify the appropriate tables to employ, based upon the demographic information collected from the participant
- B. Locate the Scaled score value that corresponds with each Raw score

#### **Record Form & CRF**



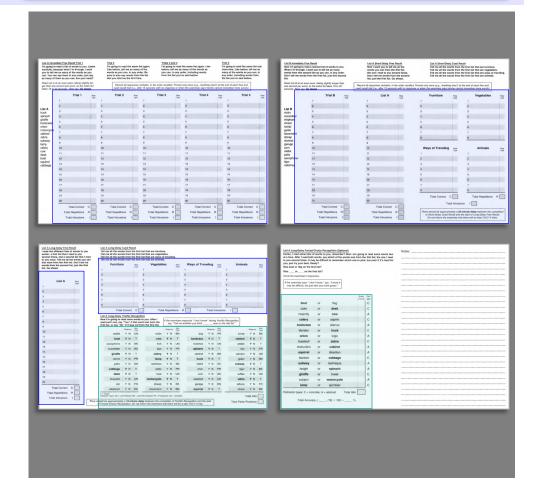
#### Manual



Process: Raw score

#### 1. Raw score:

- > Recall trials:
  - Trials 1-5
  - Trial B
  - Short-Delay Free Recall
  - Short-Delay Cued Recall
  - Long-Delay Free Recall
  - Long-Delay Cued Recall
- **Recognition** trials:
  - Yes/No Recognition
  - Forced-Choice Recognition



#### Process: Raw score

#### Raw score: Recall trials

#### **Correct** response:

- > CVLT-II manual, Scoring (page 22):
  - 1. Initial recall of a correct word from the target list
  - 2. Singular and plural versions of a target word are correct

#### **Incorrect** response:

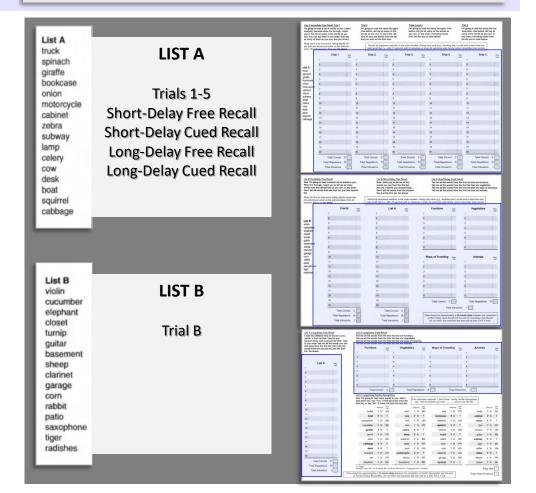
> CVLT-II manual, Scoring (pages 22-23):

#### **Repetition** error:

 Any target word that is <u>identically</u> repeated following initial recall, during 1 trial

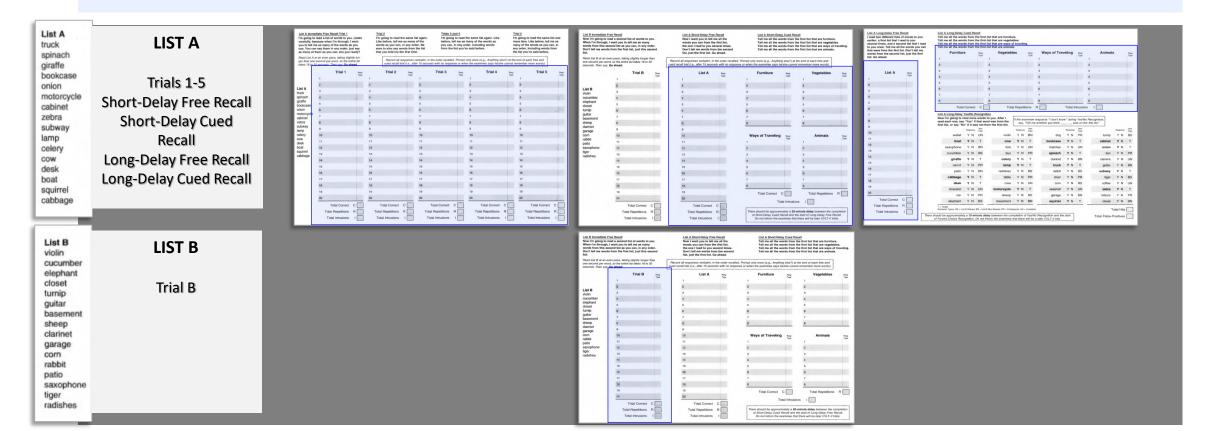
#### **Intrusion** error:

• Any word that is not included within the target list



Process: Raw score

Raw score: Recall trials



#### Process: Raw score

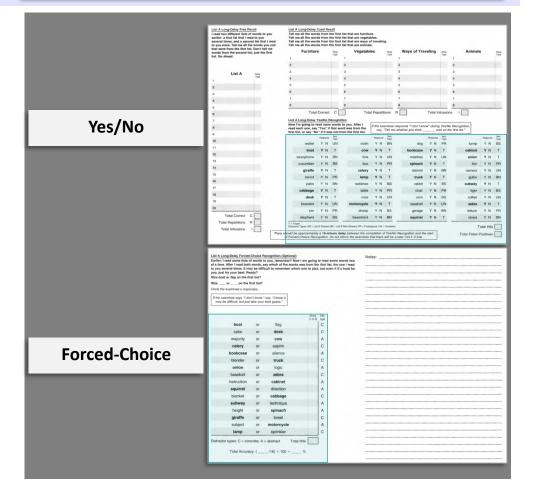
1. Raw score: **Recognition** trials

#### Yes/No Recognition:

- > CVLT-II manual, Scoring (page 25):
  - **Hit**: response of "Yes" for a target word
  - False-Positive: response of "Yes" for an intrusion word

#### **Forced-Choice Recognition**:

- > CVLT-II manual, Scoring (pages 26):
  - Correct: correct identification of target word
  - Incorrect: incorrect identification of intrusion word



#### Process: Scaled score

#### 1. Scaled score:

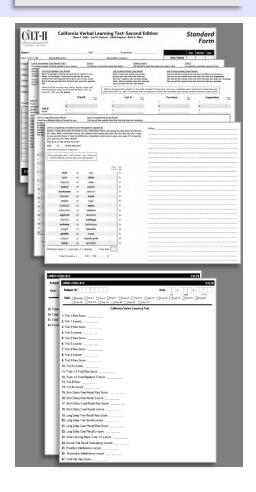
- A. Under Appendix C, Tables C.1-C16 (pages 172-203) of the CVLT-II manual, identify the appropriate tables to employ, based upon the demographic information collected from the participant
  - Trials 1-5 Total:

• Male: Table C.1

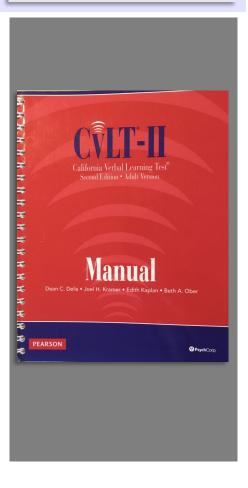
• Female: Table C.9

B. Locate the Scaled score value that corresponds with each Raw score

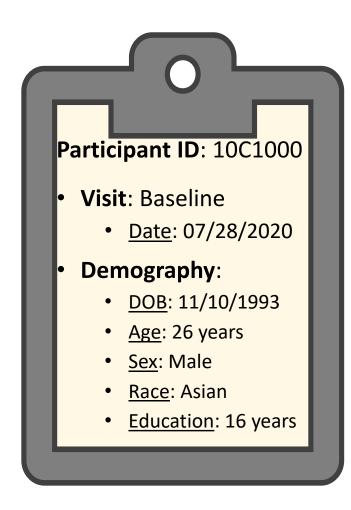
#### **Record Form & CRF**



#### Manual



### CVLT-II: Practice

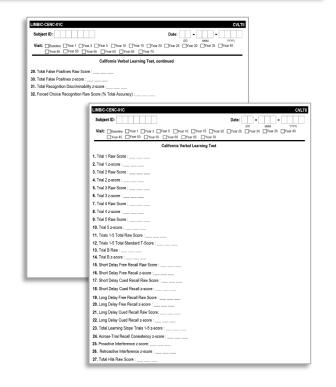


- Complete the appropriate sections of the CVLT-II Record Form with the participant information provided
- Generate each Raw Score, then complete the appropriate fields of the Record Form and CRF
- Obtain each Scaled score and finalize the documentation

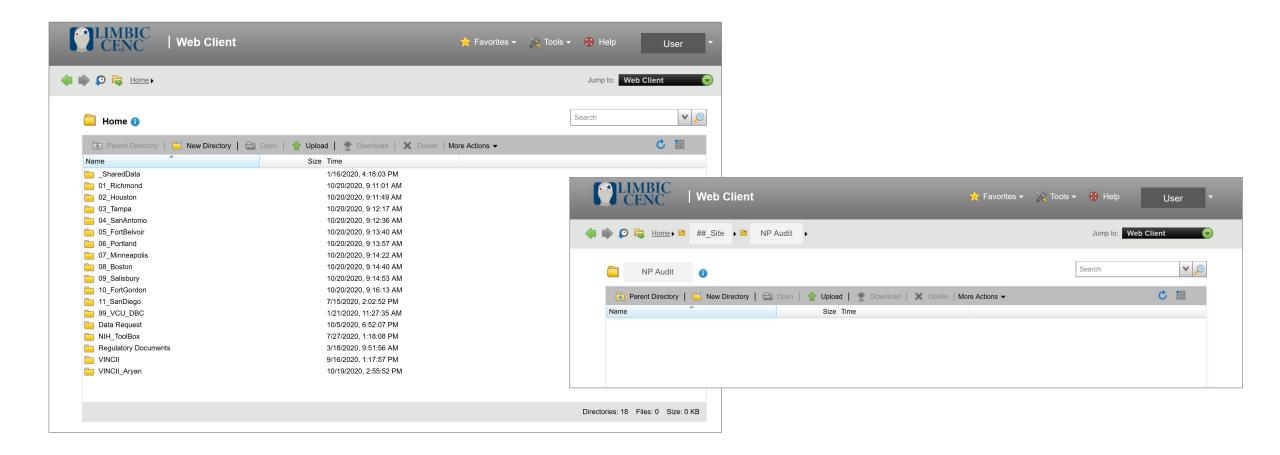
#### **Record Form**



#### **CRF**



### SFTP



### Reference

- Grooved Pegboard Test, Trail-Making Test (link: <a href="https://www.parinc.com/Products/Pkey/357">https://www.parinc.com/Products/Pkey/357</a>):
  - Manual: Revised Comprehensive Norms for an Expanded Halstead-Reitan Battery: Demographically Adjusted Neuropsychological Norms for African American and Caucasian Adults
  - ➤ Link: https://www.parinc.com/Products/Pkey/357

#### D-KEFS:

- Manual: Delis-Kaplan Executive Function System (D-KEFS) Examiner's Manual
- Link: <a href="https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Delis-Kaplan-Executive-Function-System/p/100000618.html">https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Delis-Kaplan-Executive-Function-System/p/100000618.html</a> (under Manual Scoring, Manuals section)

#### WAIS-IV:

- Manual: Wechsler Adult Intelligence Scale, Fourth Edition (WAIS-IV) Administration and Scoring Manual
- Additional material:
  - WAIS-IV, Symbol Search Scoring Key
  - WAIS-IV, Coding Scoring Template
- Link: <a href="https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Wechsler-Adult-Intelligence-Scale-%7C-Fourth-Edition/p/100000392.html">https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Wechsler-Adult-Intelligence-Scale-%7C-Fourth-Edition/p/100000392.html</a> (under Manual Scoring, Manuals section & Additional Materials section)

#### CVLT-II:

- Manual: California Verbal Learning Test, Second Edition (CVLT-II) Adult Version Manual
- Link: <a href="https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/California-Verbal-Learning-Test-%7C-Second-Edition/p/100000166.html?tab=pricing-%2526-ordering (under Manuals section)</a>