

## Neuropsychological Assessment Report Assignment

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## NP Assessment Report Assignment

- Goals:
  - Clinical, individualized, humanistic : real-world issues of human emotion and illness
  - Technical, scientific : calculating and interpreting NP tests and making a diagnosis
  - Writing: college-level writing to meet CSUSM writing requirement
- Reminders:
  - 2500 words (roughly 10 pages double spaced)
  - Grammar & writing style counts. Help if needed from CSUSM writing center.
  - Worth 100 points

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### NP Report: Submitting



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### NP Report: Scoring

- Format: Use APA format. Graphs and tables may be located within the text, or in an appendix at the end.
- Grading
  - 20% Overall Grammar, Style & Organization, APA format
  - 80% Each of the 8 sections is worth 10%
- Outline
  1. Identifying Information & Presenting Problem
  2. Background
  3. Symptoms & History
  4. Clinical Interview and Mental Status Exam
  5. Neuropsychological Test Results
  6. Interpretations & Diagnosis
  7. Recommendations
  8. References

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## NP Assessment Report Assignment

- Materials
  - Patient video (10 minutes)
  - Additional background information
  - NP Test Results
    - NP Test score conversion tables
      - use formulas and tables from published articles
- Textbook
- Lecture Notes

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## MSE Checklist

<b>Appearance</b> : sex, age, height, weight, deformities, attire, grooming, gait, posture, expression	<b>Mood</b> : Manic (euphoric), hypomanic, euthymic, dysthymic, depressed. Anxious, angry, irritable.
<b>Behavior</b> : On time, needing help, confused. Motor behavior, tics, eye contact. Attitude.	<b>Affect</b> : Range: full, restricted, blunted, flat. Lability. Appropriate, congruent
<b>Speech</b> : Volume, rate, flow, accent, prosody, stuttering, dysarthria, neologisms, paraphasia, neologism, clang, echolalia.	<b>Cognition</b> : Abstract thought, insight, judgement, reasoning, planning, memory.
<b>Thought Form</b> : Logical & goal-directed, tangential, circumstantial, perseveration, loose associations, incoherent, word salad.	<b>Consciousness</b> : Awake, sleepy, sedated. Consistent or variable.
<b>Thought Content</b> : Delusions, hallucination, Ideas of Reference, thought insertion / withdrawal / broadcast, obsessions, ruminations, impulses, phobias. Violent Ideation: thoughts, plans, means, actions	<b>Orientation</b> : Person, place, time, situation.

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## NP Report : Score Table

Test Name	Subtest Name	Raw	SS	IQ	T	Z
WAIS-4	FSIQ			81		
WAIS-4	GAI			86		
WAIS-4	CPI			78		
Trail Making	Trails A	34 seconds				
Trail Making	Trails B	110 seconds				
COWAT	FAS (Letter)	28 words				
COWAT	Animals (category)	12 words				
NAART	# correct	54 words				

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## NP Report : Graph

- You may use any graph program
- Minor variations are OK
- Free license to *GraphPad Prism* for CSUSM Students

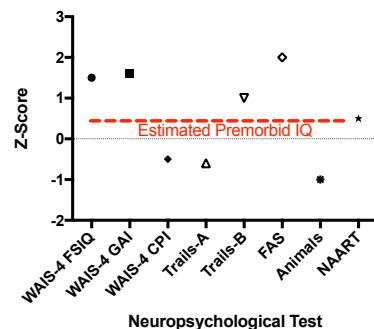
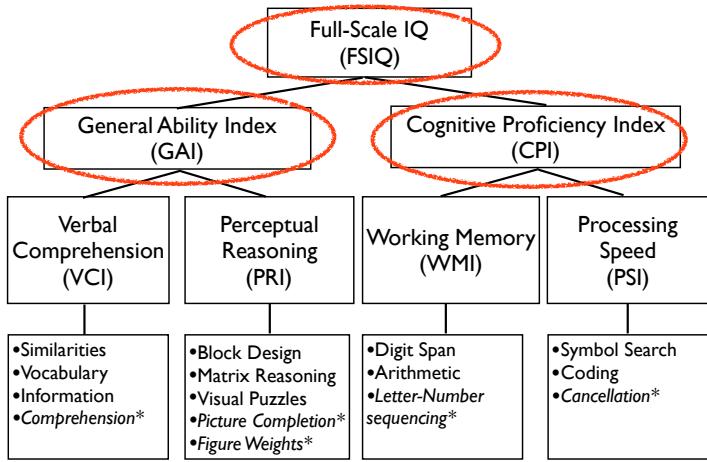


Figure 1: NP Score Profile for Patient JM

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## WAIS-4

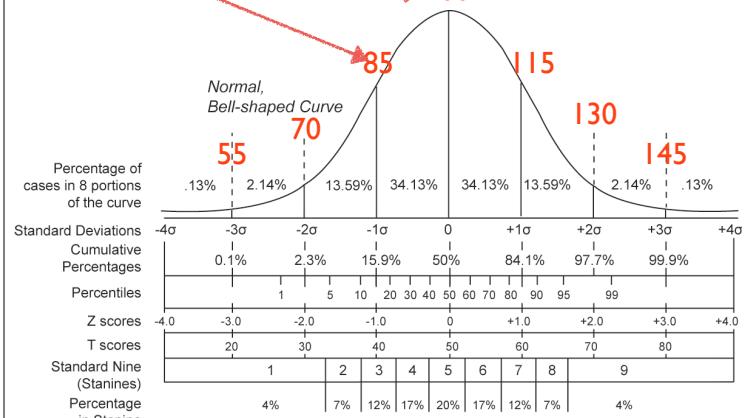


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## Standard Scores

### IQ Scores



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## Standard Scores

	Z scores	IQ scores	T scores	Scaled Scores
<b>Mean</b>	0	100	50	10
<b>SD</b>	1	15	10	3
<b>1 SD below the mean</b>	-1.0	85	40	7
<b>2 SD below the mean</b>	-2.0	70	30	4

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## COWAT - Raw to Scaled Conversion

Table 4  
Scaled Score Equivalents to Raw Scores for Letter (FAS) and Category (Animal) Fluency

Scaled score	Raw score	
	FAS	Animal
19	78+	37+
18	73 - 77	33 - 36
17	67 - 72	31 - 32
16	63 - 66	30
15	58 - 62	29
14	54 - 57	27 - 28
13	50 - 53	25 - 26
12	46 - 49	23 - 24
11	42 - 45	21 - 22
10	37 - 41	19 - 20
9	33 - 36	17 - 18
8	29 - 32	15 - 16
7	26 - 28	14
6	21 - 25	13
5	18 - 20	12
4	15 - 17	11
3	13 - 14	10
2	0 - 12	8 - 9
1	0 - 7	0 - 7

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## COWAT - Formula

### Appendix B

#### Letter (FAS) and Category (Animal) Norms Formulas

Demographically corrected *T* scores for fluency can be calculated as follows:

$$\text{Letter (FAS) } T \text{ score} = 14.796 + (3.584 \times \text{FAS Scaled Score}) - (0.914 \times \text{Education}) + (0.177 \times \text{Age}) + (5.470 \times \text{Race})$$

$$\text{Category (Animal) } T \text{ score} = 10.450 + (3.558 \times \text{Animal Scaled Score}) - (1.048 \times \text{Education}) + (0.301 \times \text{Age}) + (8.476 \times \text{Race})$$

Education = years of education successfully completed.

Age = actual age (if age is 20-34 years, age is coded as 34 years).

Race: Caucasian = 0, African American = 1.

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## NP Report Helpful Hints 1

### NP Report Helpful Hints 1

- Identifying Information & Presenting Problem
  - keep this short
- Family History:
  - Parkinson's Disease in relative: this is a genetic risk factor
- Sx & Hx:
  - "Treatments & Compensations" - include changes made by patient, friends, or family.
- Clinical Interview & MSE
  - this section should be fairly detailed:
  - use the right amount of quotes of patient's words

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## NAART Estimating Premorbid Verbal IQ

- Given NAART score, estimate premorbid Verbal IQ (via their Vocabulary test Scaled Score)

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MULT READING TEST

$$\text{WAIS-R Vocabulary} = 31.30 + 0.622 \times \text{NAART} (\text{SEE} = 5.14)$$

$$\text{WAIS-R Vocabulary} = 25.71 + 0.566 \times \text{NAART} + 0.508 \times \text{Education} (\text{SEE} = 5.02)$$

$$\text{WAIS-R Vocabulary Scaled} = 5.383 + 0.179 \times \text{NAART} (\text{SEE} = 1.71)$$

$$\text{WAIS-R Vocabulary Scaled} = 4.112 + 0.167 \times \text{NAART} + 0.115 \times \text{Education} (\text{SEE} = 1.69)$$

- 4th equation includes Education correction
  - gives VIQ Scaled Score
  - Convert VIQ Scaled to IQ score

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## NP Report Helpful Hints 2

- NP Test Results
  - Test Description - focus on what ability area(s) the test measures (not who invented it, how it is administered or scored, etc.)
  - Raw Scores - define scale (seconds, # correct, errors, etc.)
  - Standard Score - (IQ or Z score) - explain demographic corrections used (if any)
  - Use WAIS-4 terminology ("Low Average", "Superior" etc.)
    - see next slide
- Table / Z-scores: positive vs. negative? Negative should all be "worse"
- Graph
  - make it look nice
  - Add a "Premorbid IQ" line for comparison

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## Describing Performance (WAIS-4 Terminology)

Classification	IQ Score	Z Score	T-Score	Percentile (%ile)
Very superior	above 130	above 2.0	70 and above	98% and above
Superior	120-129	1.3 to 2.0	63-39	91% - 97%
High average	110-119	0.6 to 1.3	56-62	75% - 90%
Average	90-109	-0.6 to +0.6	44-55	25% - 74%
Low average	80-89	-0.6 to -1.3	43-37	9% - 24%
Borderline	70-79	-1.3 to -2.0	36-30	2% - 8%
Extremely low	69 and below	below -2.0	29 and below	below 2%

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## Estimating Years of Education

- Many normative data sets include demographic corrections for education
- Rules about how to calculate education: idiosyncratic
- When in doubt, read the original article
- In general, use highest level reached - don't double-count multiple degrees
  - 8 = Middle School
  - 12 = High School
  - 14 = Associates Degree (2-year college)
  - 16 = Bachelor's Degree (4-year college)
  - 18 = Master's Degree
  - 21 = Ph.D. or M.D.
- Example: person with a AA, B.S., M.D. and M.S.
  - 21 years (not 23 or 25 or 27)

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### NP Report Helpful Hints 3

- Interpretation
  - Premorbid IQ - quantitative (NAART) and qualitative (edu and occupational history)
- Profile
  - overall change?
  - pattern of change?
  - compare GAI vs. CPI
- Diagnosis
  - use DSM-IV criteria in detail for AD and PD
  - alternative explanations?
- Limitations
  - Missing History?
  - Missing NP Testing (pre or post morbid?)
  - Demographic corrections?

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### NP Report Helpful Hints 4

- Recommendations
  - Prognosis (immediate, short & long term, social & occupational impacts)
- Interventions
  - MD/Rx
  - Psych
  - Rehab
  - Social
- Further Assessment

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