

TALSA Scoring Manual: Picture Naming

Test Description:

Picture Naming is a test of the integrity of the output (expressive) semantic-lexical-phonological pathways to production through a picture naming task. The use of one and five second intervals between the stimulus and response assesses verbal short-term and working memory.

Test Variations:

1. 1 second interval consisting of **8** items.
2. 5 second interval consisting of **8** items.

Scoring each Question

Scoring is done on a 3-point scale as follows:

- 1 – Wrong answer. Valuable information may be obtained by noting the nature of error responses. Definitions of error types are included below and may be indicated on the score sheet.
- 2 - Partially met criteria. Partial credit is allowed when the patient/client gives the correct answer but responds early (i.e., before the beep) or late (i.e., after the response screen has disappeared.) The clinician can indicate the reason in the comment section.
- 3 – Correct answer

Error types: Words

- **Semantic error (SM):** real word - semantically related
 - *Target:* banana --> *Response:* "apple"
 - owl --> "bird"
 - bench --> "park"
- **Phonemic error (PH):** real word - phonologically related
 - ghost --> "toast"
 - basket --> "blanket"
- **Mixed error (MX):** real word - semantically *and* phonologically related
 - hat --> "hood"
 - strawberries --> "cherries"
- **Unrelated (UNR):** real word - *no* semantic or phonological similarity
 - dollar --> "cat"
 - hammer --> "beach"

Error Types: Nonwords

- **Phonologically related (N-PH)**
 - table --> "tabin"
 - flower --> "gower"
- **Phonologically unrelated (N-UN)**
 - bed → "daffin"
 - grapes → "shamby"

Scoring the Subtest

1. Calculate the total raw score: Add up the point values for each item. For any 8-item form, the lowest possible raw score is 8; the highest possible raw score is 24. For the 12 item forms, the lowest possible raw score is 12; the highest possible raw score is 36.
2. Determine the T-score: Use the appropriate cross-walk table to determine the T-score. The T-score rescales the raw score into a standardized score with a mean of 50 and a standard deviation (SD) of 10. The standardized T-score is reported as the final score for each participant. The 95% confidence interval can be determined as $T\text{-score} \pm (1.96 * SE)$.

Note: All questions on the form must be answered in order to produce the most valid summed score. However, if a respondent answers at least 50% of the items (e.g. 4 items for any of the 8 item tests) the following algorithm can be used to derive a score. For these pro-rated raw scores, use caution when interpreting the final pro-rated T-score.

$$\text{Pro-rated raw summed score} = \frac{(\text{Sum of the item responses answered}) * (\text{number of items on the form})}{(\text{number of items actually answered})}$$

If the result is a fraction, round up to the nearest whole number.

Example: The patient answered only 6 items on an 8 item subtest and received a raw score of 13.

$$\frac{13 \times 8}{6} = 17.3 \rightarrow \text{so round to } 17$$

The T-score calculation is based on 171 subjects who completed 1 or more TALSA sub-tests between 2008 - 2019. These subjects consisted of both neurotypical controls (n=36) and subjects with aphasia (n=135). The inclusion of both neurotypical controls and adults with various levels of aphasia support measuring change across the spectrum of capabilities.

Response pattern scoring: TALSA instruments can also be scored using item-level calibrations referred to as "response pattern scoring" which provides a more accurate score as it is based on the actual pattern of the respondent's answers (so based on exactly which items were correct or not). The TALSA investigators would be glad to support this if you contact us.

SCORING: RAW SCORES [1 pt = wrong | 2 pt = partially correct | 3 pt = correct]

6.1 Picture Naming – 1 Second							
#	ITEMS	Points	Comments (circle error type)				
	calendar		SM	PH	MX	UNR	N-PH N-UN
	fireman		SM	PH	MX	UNR	N-PH N-UN
	scale		SM	PH	MX	UNR	N-PH N-UN
	mountain		SM	PH	MX	UNR	N-PH N-UN
	tractor		SM	PH	MX	UNR	N-PH N-UN
	dinosaur		SM	PH	MX	UNR	N-PH N-UN
	chimney		SM	PH	MX	UNR	N-PH N-UN
	waterfall		SM	PH	MX	UNR	N-PH N-UN
RAW TOTAL (sum points)							
T-Score (from table below)			Standard Error				
6.2 Picture Naming – 5 Second							
	ITEMS	Points	Comments (circle error type)				
	star		SM	PH	MX	UNR	N-PH N-UN
	iron		SM	PH	MX	UNR	N-PH N-UN
	scissors		SM	PH	MX	UNR	N-PH N-UN
	camera		SM	PH	MX	UNR	N-PH N-UN
	man		SM	PH	MX	UNR	N-PH N-UN
	football		SM	PH	MX	UNR	N-PH N-UN
	candle		SM	PH	MX	UNR	N-PH N-UN
	squirrel		SM	PH	MX	UNR	N-PH N-UN
RAW TOTAL (sum points)							
T-Score (from table below)			Standard Error				

Scoring Crosswalk Tables [summed scores to T-scores]

6.1 Picture Naming – 1 Second			
8-item Form: Sum Score to T-Score Conversion Table			
Raw summed score	T-Score	Standard Error (SE)	Severity
8	39	5	Severe
9	40	5	
10	41	5	
11	42	5	Mod
12	43	3	
13	44	3	
14	46	3	
15	47	3	
16	48	1	
17	49	1	Mild
18	50	1	
19	51	1	
20	53	1	
21	54	1	
22	55	1	WNL
23	56	1	
24	57	1	WNL

6.2 Picture Naming – 5 Second			
8-item Form: Sum Score to T-Score Conversion Table			
Raw summed score	T-Score	Standard Error (SE)	Severity
8	39	5	Severe
9	41	5	Mod
10	42	5	
11	43	5	
12	44	3	
13	45	3	
14	46	3	
15	48	3	Mild
16	49	1	
17	50	1	
18	51	1	
19	52	1	
20	53	1	WNL
21	54	1	
22	55	1	WNL
23	57	1	
24	58	1	WNL

