

TALSA Scoring Manual: Lexical Comprehension v1.0

Test Description:

Lexical Comprehension is spoken word-to-picture matching test. It assesses the input (receptive) lexical-semantic pathway by examining the ability to access a word's semantics. 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
- 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

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-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.

SCORE SHEET – Lexical Comprehension

[Wrong = 1 point, Partially Correct = 2 points, Correct = 3 points]

4.1 Lexical Comprehension 1 sec.			
#	ITEMS	Points	Comments
	cello horn keyboard banjo		
	bear rabbit raccoon deer		
	axe saw pliers drill		
	car boat train airplane		
	piano harp violin guitar		
	pelican turkey hummingbird owl		
	onion lettuce pepper celery		
	chair table bed sofa		
RAW TOTAL (sum points)			
T-Score (from crosswalk table below)			Standard Error (from table below)
4.2 Lexical Comprehension 5 sec.			
#	ITEMS	Points	Comments
	celery lettuce carrot peas		
	shark jellyfish seal octopus		
	table dresser chair sofa		
	knife spoon tongs fork		
	stove dishwasher refrigerator washing machine		
	screwdriver wrench axe hammer		
	vest pants shirt skirt		
	calculator stapler computer tape		
RAW TOTAL (sum points)			
T-Score (from crosswalk table below)			Standard Error (from table below)

Scoring Crosswalk Tables [summed scores to T-scores]

4.1 Lexical Comprehension 1 sec.			
8-item Form: Sum Score to T-Score Conversion Table			
Raw summed score	T-Score	Standard Error (SE)	Severity
8	8	5	Severe
9	8	5	
10	8	5	
11	8	1.9	
12	10	1.9	
13	14	1.9	
14	17	1.9	
15	21	1.9	
16	25	0.98	
17	29	0.98	
18	32	0.98	
19	36	0.98	
20	40	0.98	
21	43	0.98	
22	47	0.98	Mild
23	51	0.98	
24	54	0.98	WNL

4.2 Lexical Comprehension 5 sec.			
8-item Form: Sum Score to T-Score Conversion Table			
Raw summed score	T-Score	Standard Error (SE)	Severity
8	8	5	Severe
9	8	5	
10	8	5	
11	8	5	
12	11	1.9	
13	14	1.9	
14	18	0.98	
15	22	0.98	
16	25	0.98	
17	30	0.98	
18	33	0.98	
19	37	0.98	
20	40	0.98	
21	44	0.98	
22	48	0.98	Mild
23	51	0.98	
24	55	0.98	WNL

