TALSA Scoring Manual: Word/Nonword Repetition – Single Item v1.0

Test Description:

Word and Nonword Repetition is a test of the ability to repeat stimuli with lexical representations (i.e., words) and without lexical representation (i.e., phonotactically legal nonwords). The use of one and five second intervals between the stimulus and response assesses verbal short-term and working memory.

Test Variations:

- 1. Words 1 second interval consisting of **8** items.
- 2. Words 5 second interval consisting of 8 items.
- 3. Non- Words 1 second interval consisting of 8 items.
- 4. Non- Words 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. Pluralization of words are counted as correct. Pluralization of nonwords are counted as incorrect.

Scoring the Subtest

- 1. <u>Calculate the total raw score</u>: 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.
- <u>Determine the T-score</u>: 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 <u>+</u> (1.96*SE).

<u>Note</u>: 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.

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Pro-rated raw summed score = <u>(Sum of the item responses answered)</u> * <u>(number of items on the form)</u>
(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.
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 $\frac{13 \times 8}{6} = 17.3 \rightarrow \text{ so round to } 17$

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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.

<u>Response pattern scoring</u>: 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 [Wrong = 1 point, Partially Correct = 2 points, Correct = 3 points]

	3.1 Word/Nonword Repetition Test - Word 1 sec.					
#	ITEMS	Points	Comments			
	garden					
	ornament					
	puddle					
	rodeo					
	stick					
	telephone					
	lotion					
	chair					
	RAW TOTAL (sum points)					
	T-Score (from crosswalk		Standard Error			
	table below)		(from table below)			
	2.2 Word/Nonword Repe	etition Tes	t - Word 5 sec.			
	ITEMS					
	cabinet	Points	Comments			
	essay					
	campus					
	carrot					
	arm					
	file					
	hurricane					
	flag					
	RAW TOTAL (sum points)					
	T-Score (from crosswalk		Standard Error			
	table below)		(from table below)			
	2.3 Word/Nonword Repetition Test Nonwords 1 sec.					
	ITEMS	Points	Comments			
	dustigy					
	sekeea					
	frab					
	glig					
	ipek					
	poodem					
	elu					
	tilis					
	RAW TOTAL (sum points)					
	T-Score (from crosswalk		Standard Error			
	table below)		(from table below)			
	2.4 Word/Nonword Repetition Test Nonwords 5 sec.					
	Items	Points	Comments			
	hafil					
	muvaleep					
	eksofand					
	glone					
	fup					
	zakia					
	elek					
	difleem					
	RAW TOTAL (sum points)					
	T-Score (from crosswalk		Standard Error			
	table below)		(from table below)			

Scoring Cross-walk Tables for converting Raw scores to T-scores

3.1 Word/Nonword Repetition Word -1 Second					
8-item Forr	8-item Form: Sum Score to T-Score Conversion Table				
Raw Score	T-Score	Standard Error (SE)	Severity		
8	26	1.6			
9	28	1.6			
10	29	.95			
11	31	.95			
12	33	.95	Source		
13	35	.95	Severe		
14	37	.90			
15	37	.90			
16	37	.90			
17	38	.90			
18	43	.90			
19	44	.95			
20	45	.95	Moderate		
21	45	.95			
22	47	1.6			
23	50	1.6	Mild		
24	59	1.6	WNL		

3.2 Word/Nonword Repetition Word -5 Second					
8-item Form: Sum Score to T-Score Conversion Table					
Raw Score	T-Score	Standard Error (SE)	Severity		
8	17	1.6			
9	19	1.6			
10	22	.95			
11	25	.95			
12	27	.95	Severe		
13	29	.95			
14	33	.90			
15	35	.90			
16	37	.90			
17	40	.90			
18	42	.90			
19	44	.95	Moderate		
20	47	.95			
21	49	.95			
22	52	1.6	Mild		
23	54	1.6			
24	57	1.6	WNL		

8-item Fori	m: Sum Score t	o T-Score Conv	ersion Table
Raw Score	T-Score	Standard Error (SE)	Severity
8	30	1.8	
9	33	1.8	
10	37	.96	Severe
11	38	.96	
12	39	.96	
13	41	.93	
14	43	.91	
15	44	.91	Moderate
16	46	.91	
17	47	.91	
18	48	.96	
19	49	.96	Mild
20	53	.95	
21	55	.96	
22	57	1.8	
23	60	1.8	WNL
24	63	1.8	

3.3 Word/Nonword Repetition Nonword -1 Second					
8-item Form: Sum Score to T-Score Conversion Table					
Raw Score	T-Score	Standard Error (SE)	Severity		
8	30	1.8			
9	32	1.8			
10	34	.96	Severe		
11	38	.96			
12	40	.96			
13	41	.93			
14	42	.91			
15	42	.91	Moderate		
16	43	.91			
17	45	.91			
18	48	.96			
19	50	.96	Mild		
20	51	.95	IVIIIA		
21	53	.96			
22	55	1.8			
23	58	1.8	WNL		
24	62	1.8			