TALSA Scoring Manual: Synonymy Triplets

Test Description:
Synonymy Triplets is a test of verbal working memory (WM) that primarily taps into lexical-semantic working memory. The ability to judge the similarity of word meanings is assessed under a high WM load condition (3 word pairs) and a low WM load conditions (2 word pairs).

** Important note: In order to determine the effect of increased WM load on language, it is necessary to administer both the 3 word pair condition and the 2 word pair condition. The critical outcome measurement is the <u>difference</u> between these two scores. The greater the difference, the greater the WM impairment.

 ** Learning effect: The items are the same on the 2 word and the 3 word conditions. To minimize the learning effect, do not administer both versions back to back. Insert another test or activity in between or administer on different days.

Test Variations:
1. 2 word pairs (with box) consisting of **8** items.
2. 3 word pairs (without box) consisting of **8** items.

Scoring each Question
Scoring is done on a 3-point scale as follows:
1 – Wrong answer
2 – Partially met criteria: For this subtest there is no option for partial credit.
3 – Correct answer

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.
2. <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.
3. <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 the following algorithm can be used to derive a score. For these pro-rated scores, use caution when interpreting the final pro-rated T-score.

*Pro-rated raw summed score = <u>(Sum of the item responses answered) * (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.

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

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   [Wrong = 1 point, Partially Correct = N/A, Correct = 3 points]

	11.1 Synonymy Triplets - 3 Word Pairs			
#	ITEMS	Answer	Points	Comments
1	to scare | to frighten | to annoy	to scare & to frighten		
2	automobile | train | car	automobile & car		
3	victory | triumph | control	victory & triumph		
4	thief | spy | robber	thief & robber		
5	lawyer | policeman | attorney	lawyer & attorney		
6	omelet | pancake | flapjack	pancake & flapjack		
7	to repair | to fix | to design	to repair & to fix		
8	to arrange | to glue | to paste	to glue & to paste		
	RAW TOTAL (sum points)			
	T-Score (from crosswalk table below)			**Standard Error (from table below)**
	11.1 Synonymy Triplets - 2 Word Pairs			
#	ITEMS	Answer	Points	Comments
1	automobile | car | train	car		
2	victory | triumph | control	triumph		
3	to frighten | to annoy | to scare	to scare		
4	thief | spy | robber	robber		
5	to paste | to glue | to arrange	to glue		
6	lawyer | attorney | policeman	attorney		
7	pancake | omelet | flapjack	flapjack		
8	to fix | to design | to repair	to repair		
	RAW TOTAL (sum points)			
	T-Score (from crosswalk table below)			**Standard Error (from table below)**

Difference Score	
The greater the difference, the greater the WM impairment.	
2 word pair score	
3 word pair score	
Difference	

11.1 Synonymy Triplets - 3 Word Pairs			
8-item Form: Sum Score to T-Score Conversion Table			
Raw summed score	T-Score	Standard Error (SE)	Severity
8	10	5	Severe
9	10	5	
10	11	4.4	
11	11	4.4	
12	12	2.7	
13	16	2.7	
14	19	1.35	
15	23	1.35	
16	26	1.35	
17	30	1.35	
18	34	1.35	
19	37	0.77	
20	41	0.77	Moderate
21	44	0.77	
22	48	0.77	Mild
23	52	0.77	
24	55	0.77	WNL

11.2 Synonymy Triplets - 2 Word Pairs			
8-item Form: Sum Score to T-Score Conversion Table			
Raw summed score	T-Score	Standard Error (SE)	Severity
8	2	5	Severe
9	6	5	
10	9	3.7	
11	13	3.7	
12	16	2.2	
13	19	2.2	
14	23	1.08	
15	26	1.08	
16	30	1.08	
17	33	1.08	
18	36	0.77	
19	40	0.77	
20	43	0.77	Moderate
21	47	0.77	
22	50	0.77	Mild
23	53	0.77	
24	57	0.77	WNL