

OCTH 6260-Spring- Assessment Rating Form

I. General Information

Title of the test: Trail Making Test (TMT)

Author: R.M. Reitan (originally part of the Army Individual Test Battery)

Publisher: Reitan Neuropsychology Laboratory (originally published by Adjutant General's Office, War Department, U.S. Army in 1944)

Time required to administer: 5-10 minutes

Cost of the Test: Free

II. Description of Test

Type/Purpose of Test: The purpose of the TMT is to test for the presence of brain injury. The TMT is a measure of attention, speed, and mental flexibility. It also tests spatial organization, visual pursuits, recall, and recognition. Part A requires the individual to draw lines to connect 25 encircled numbers distributed on a page. Part A tests visual scanning, numeric sequencing, and visuomotor speed. Part B is similar except the person must alternate between numbers and letters and is believed to be more difficult and takes longer to complete. Part B tests cognitive demands including visual motor and visual spatial abilities and mental flexibility. Both sections are timed and the score represents the amount of time required to complete the task.

Population: Persons 15 to 89 years of age in a variety of settings suspected to have cognitive deficits, particularly after a TBI

Focus of measurement:

Organic systems Abilities Participation/life habits Environmental Factors

III. Practical Administration

Ease of Administration: Easy to administer, requires no training

Step 1: Give the patient a copy of the Trail Making Test Part A worksheet and a pen or pencil.

Step 2: Demonstrate the test to the patient using the sample sheet (Trail Making Part A – *SAMPLE*).

Step 3: Time the patient as he/she follows the "trail" made by the numbers on the test in ascending order without lifting up pen or pencil. If patient makes an error, point out mistake and have them correct it. Time to correct error is included in completion time for task.

Step 4: Record the time.

Step 5: Repeat the procedure for Trail Making Test Part B except explain to individual that they must alternate between numbers and letters sequentially.

Clarity of Directions: Clear.

Scoring Procedures:

Results for both TMT A and B are reported as the number of seconds required to complete the task; therefore, higher scores reveal greater impairment.

	Average	Deficient	Rule of Thumb
Trail A	29 seconds	> 78 seconds	Most in 90 seconds
Trail B	75 seconds	> 273 seconds	Most in 3 minutes

Examiner Qualification & Training: None required

IV. Technical Considerations

Standardization: Norms Criterion Referenced Other _____

Reliability: Test-retest (poor) Internal consistency Cronbach's alpha Inter-rater

Validity: Content Construct Criterion

Manual: Excellent Adequate Poor

No manual with free version, brief instructions provided with assessment

What is (are) the setting/s that you would anticipate using this assessment?

Hospitals, clinics, rehab facilities, driver's ed/re-certification, military, skilled nursing/assisted living facilities, LTAC, nursing homes

Summary of strengths and weaknesses:

Weaknesses:

- Test-retest error: Once an individual has taken the test, he/she is familiar with it and will take less time to complete.
- Could be skewed towards more educated individuals.
- Instructions can be confusing for some individuals
- Can be frustrating for individuals if they lose track of where they are and cannot proceed
- Not occupation-based
- Results do not translate into or give clear picture of function; relies on therapist judgment to interpret findings

Strengths:

- Quick and easy to administer
- No training required
- Free, easy to get
- Tests specific cognitive processes

References

- Corrigan J.D., Hinkeldey M. S. (1987). Relationships between Parts A and B of the Trail Making Test. *J Clinical Psychology*. 43:402-9.
- Gaudino E. A., Geisler M. W., Squires N. K. (1995). Construct validity in the Trail Making Test: what makes Part B harder? *J Clin Exp. Neuropsychol*.17(4):529-535.
- Lezak MD (1995). *Neuropsychological assessment*, 3rd edn. New York: Oxford University Press.
- Reitan RM. Validity of the Trail Making test as an indicator of organic brain damage. *Percept Motor Skills* 1958; 8: 271-276.
- Long, C. J. (1997). *Neuropsychology & Behavioral Neuroscience*. Retrieved from:
<http://neuro.psyc.memphis.edu/neuropsych/np-test1.htm#trails>