

13. Trail Making B

13.1. The Trailmaking Test Part B

The Trailmaking Test part B (Trails B) is a timed test of working memory, visual processing, visuospatial skills, selective and divided attention, and psychomotor coordination.

The test results are reported on FHN Form 232 - Trailmaking B Score Sheet.

13.2. Equipment and Supplies

- #2 pencils with eraser
- Stop watch
- Trails B sample form
- Trails B test form

13.3. Safety Issues and Exclusions

None.

13.4. Participant and Exam Room Preparation

Prior to administration of the test, remind the participant to bring their glasses or hearing aid, if applicable. As with the 3MS, the Trails B should be administered in a quiet place, with minimal distractions, at a desk or table the participant can use as a writing table.

13.5 Detailed Measurement Procedures

The Trails B involves connecting, in alternating order, encircled numbers (1-12) and encircled letters (A-L) randomly arranged on a page. This test is scored by overall time required to complete the connections accurately. The examiner points out and corrects mistakes as they occur; the effect of mistakes, then, is to increase the time required to complete the test. This test usually takes 3-4 minutes to administer **but up to 10 minutes is permitted, if needed.**

The participant is first given a sample test.

Script:

"You will notice that this page has both numbers and letters. Begin at number one, and draw a line from number one to the letter A, A to two, two to B, B to three, three to C, and so on, until you reach the end. Draw the lines as fast as you can."

After completing the sample test, the participant is given the Trails B test form.

Script:

"Good. Now do this test the same way. Begin at number one, and draw a line from number one to the letter A, A to two, two to B, B to three, three to C, and so on, until you reach the end. Remember, first you have a number, then a letter, and so on. Draw the lines as fast as you can. Go."

If an error is made during the test, it is pointed out by the test administrator, who instructs the examinee to continue with the test from the last correct connection. The clock does not stop during error correction.

The examiner records the time-to-complete the test (*in seconds*) for Question 5. If the participant is close to finishing but their ten minutes of time has almost expired, allow them to go over the allotted time so they can complete the task. Enter a maximum time of 600 seconds on the score sheet, and record the number of correct responses for Question 6.

If the task is not attempted due to a physical limitation such as vision or hearing impairment, severe arthritis, or illiteracy, that task is scored "Not Attempted/Disability". If a task is scored "Not Attempted/Disability", the reason the task was not completed must be specified in Item 104.

If the task is not successfully completed for any other reason, including errors due to cognitive dysfunction, refusals when no physical or functional disability is present, lack of response, enter a maximum time of 600 seconds on the score sheet.

13.6 Timing of Tests

The coordinator may split up the bedside tests onto 2 or more separate days. Irrespective of whether they are done on the same day or on different days, the order of the tests should be set:

- 1) Feeling Thermometer (this is done first to avoid mental and physical exhaustion from other tests affecting mood).
- 2) MiniMental
- 3) Trailmaking
- 4) Physical Function Tests (these are done last to avoid physical exhaustion affecting ability to do cognitive tests).