

icognition – towards telemonitoring of cognitive performance in MS

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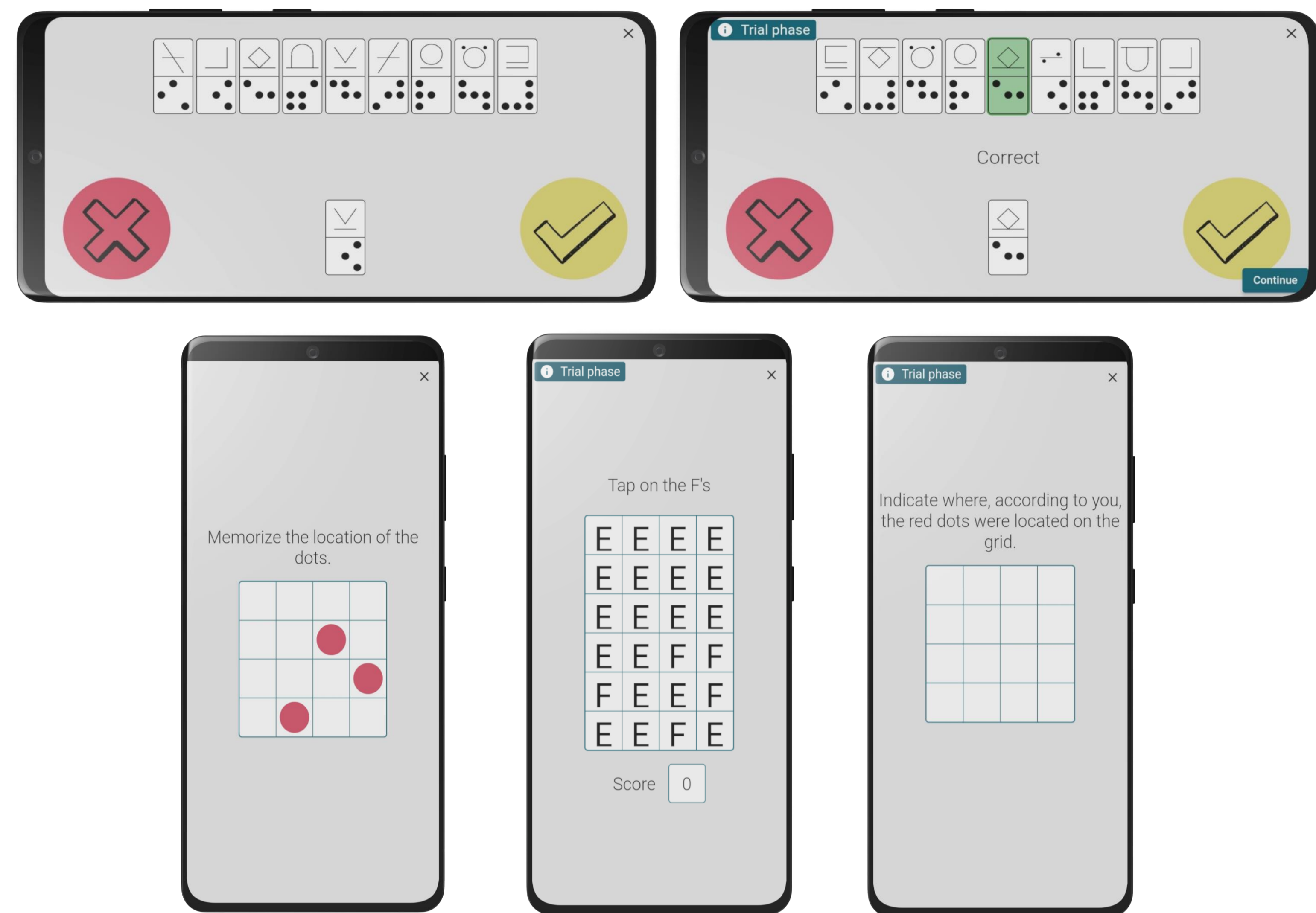
Introduction: Monitoring of cognition = paper-pencil cognitive tests:

- issues of practice effects
- trained personnel
- testing conditions during clinical visits:

Methods: Smartphone-based cognitive assessment tool with randomly generated exercises, independent use by patient and at-home monitoring.

Validation – 76 MS patients:

1. Symbol test ~ SDMT: information processing speed
2. Dot Memory test ~ 10/36 Spatial Recall test: visuospatial short-term memory and learning

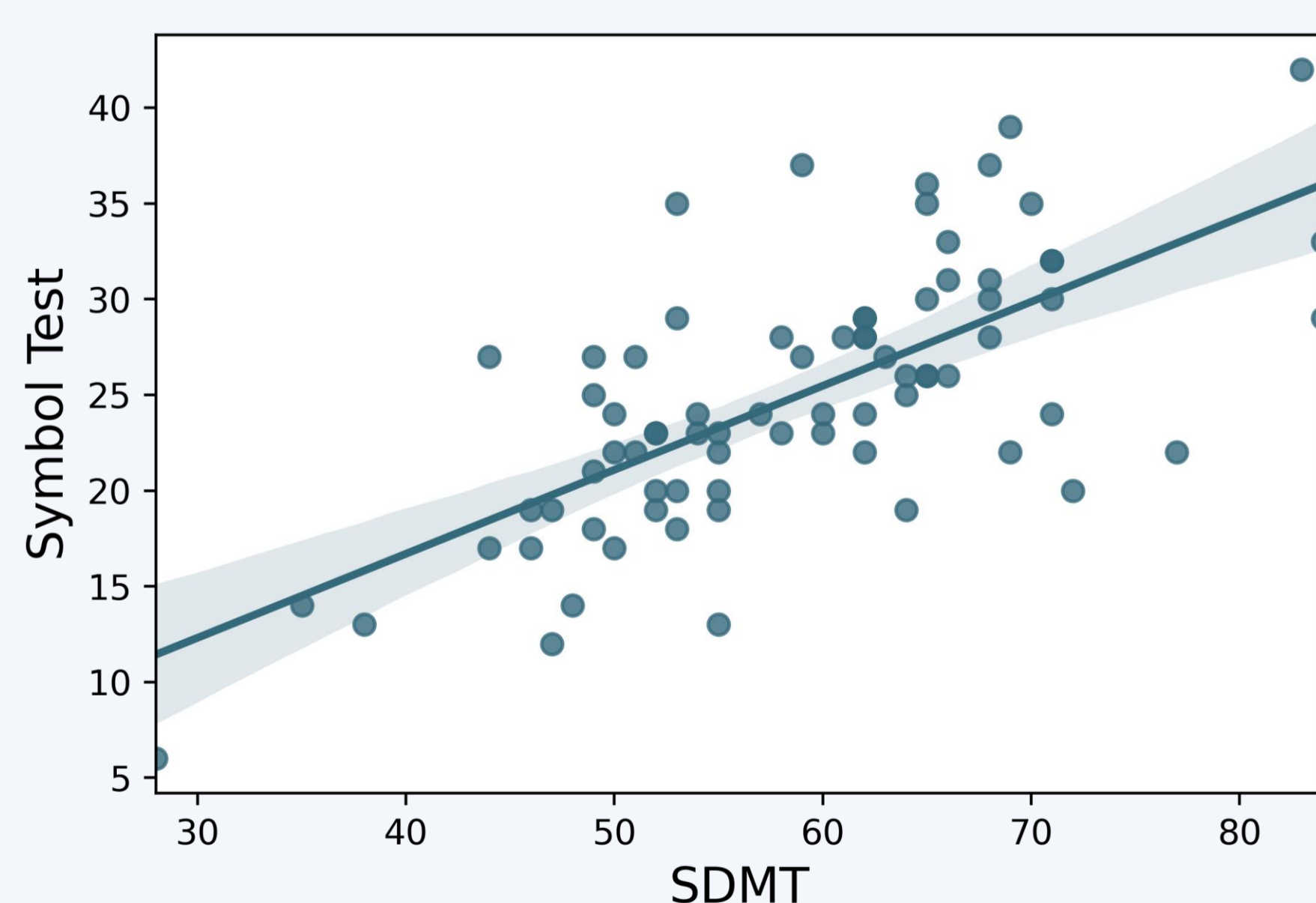


The smartphone-based symbol test is a good alternative for more frequent and reliable cognitive monitoring in MS.



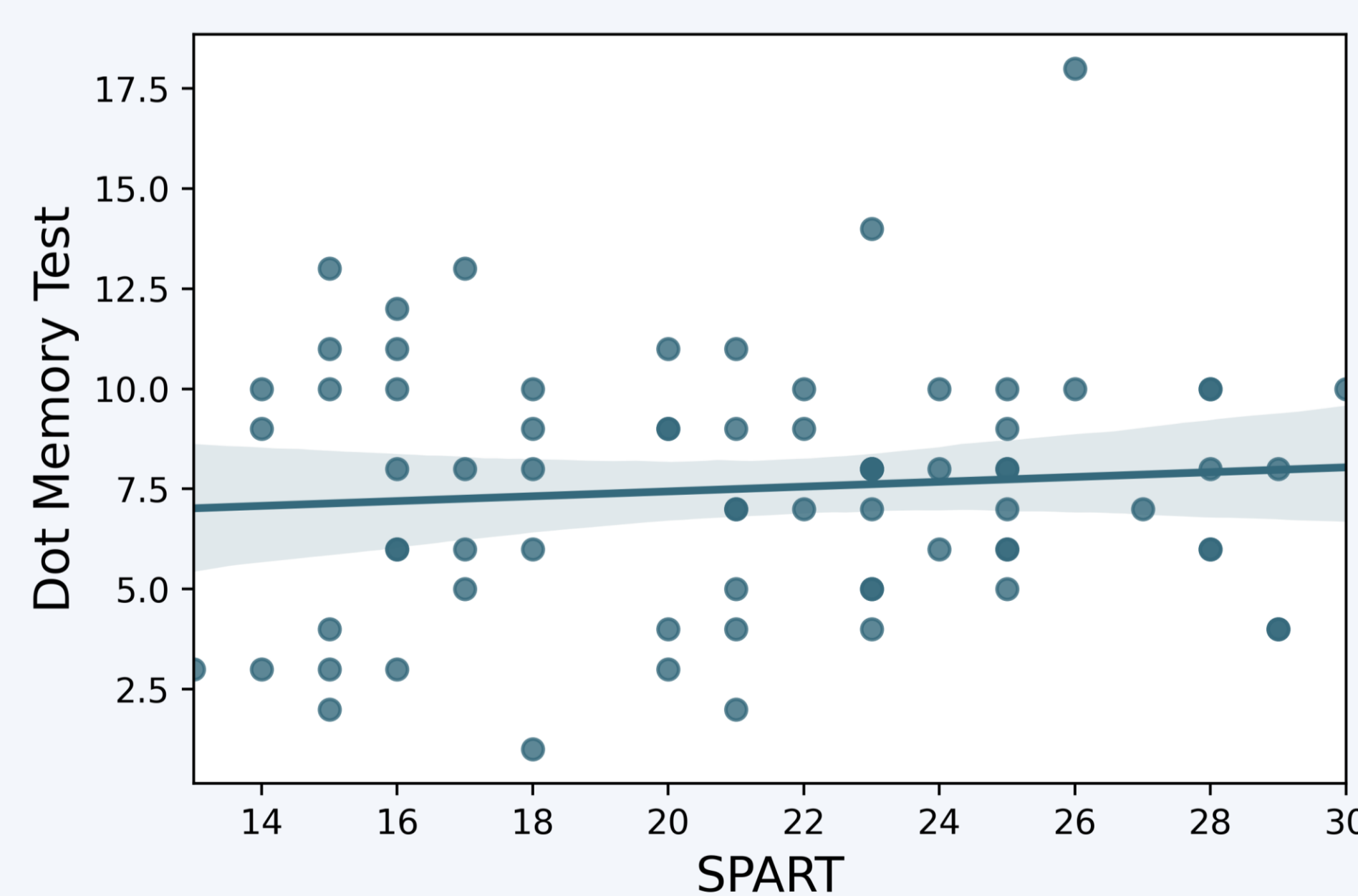
- Symbol test – SDMT:
 $r = 0.69, p < 0.001, n = 76$

→ Moderate concurrent validity



- Dot Memory test – SPART:
 $r = 0.09, p = 0.444, n = 70$

→ No correlation



To be continued:

- 100 MS patients and 100 healthy controls
- Digit Span test
- Finger Dexterity test

