Does frequent cannabis-use affect cognitive-motor performance?

Online browser study. Participants (N=217; M\_age = 22.2, SD\_age = 7.21; M=51, F=166) completed a cannabis-use questionnaire and a battery of tasks assessing cognitive-motor performance.

Spatial Working Memory
Participants observed a grid where a square appeared in one location, each trial. All participants completed three conditions: 1, 2, & 3-Back (‘n’ corresponds to the number of trials ‘back’ that had to be remembered.

Frequent users are more accurate in 1-back, and make faster errors!

Visual Attention
Participants searched for a target (regular, upright ‘T’) through sets (6,12, or 18) of irregularly shaped ‘T’s. Responses were a button press of ‘X’ when target was present and ‘M’ when target was absent.

No difference between frequent users and non-users!

Impulse Inhibition
Participants made a response when presented a ‘Go’ stimulus, and inhibited a response when presented a ‘No-Go’ stimulus.

Frequent users are faster!

Executive Function
Participants used their mouse to connect the circles, alternating between letters and numbers (e.g. 1A, 2B) as fast as possible.

Frequent users are faster!

Frequent cannabis-use does not impair cognitive-motor function.
Future work: immediate effects of cannabis on cognitive-motor function.