NUHS SLEEP STUDY

Protocol Details

Lab Visit Briefing

Z4IP

Ecological Momentary Assessment App

User Guide V1.0
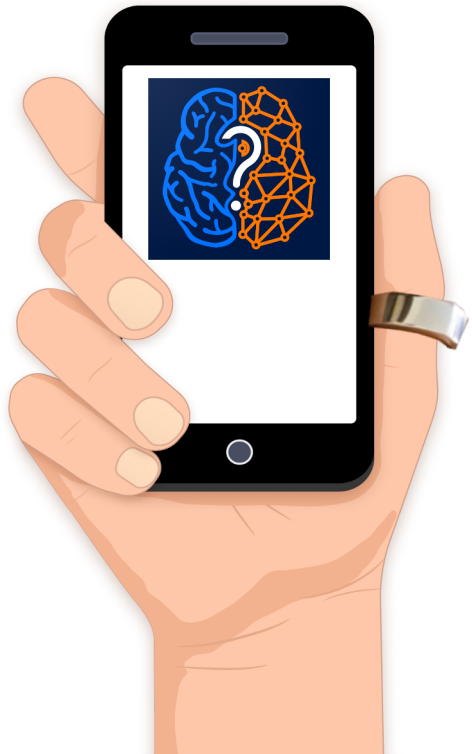
Daily Z4IP tasks

Complete 1x daily

Between <mark>5 am – 10 pm</mark>: (optimally approx. 30 mins after wake.)

- **Cognitive tests** comprising **3** simple and short games
- **Short questionnaire** assessing your sleep and well being

Approx. 6 mins per session

Complete at any time during the day:

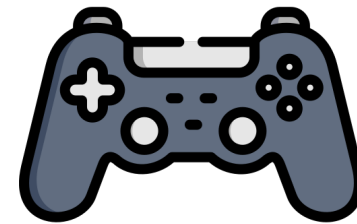- **Time-use diary** (last 3 days are editable)

On-the-go Cognitive Assessment Tool

- Test your cognitive performance using simple and short games (~5 minutes for each session)

1. Symbol Search

2. Dot Memory

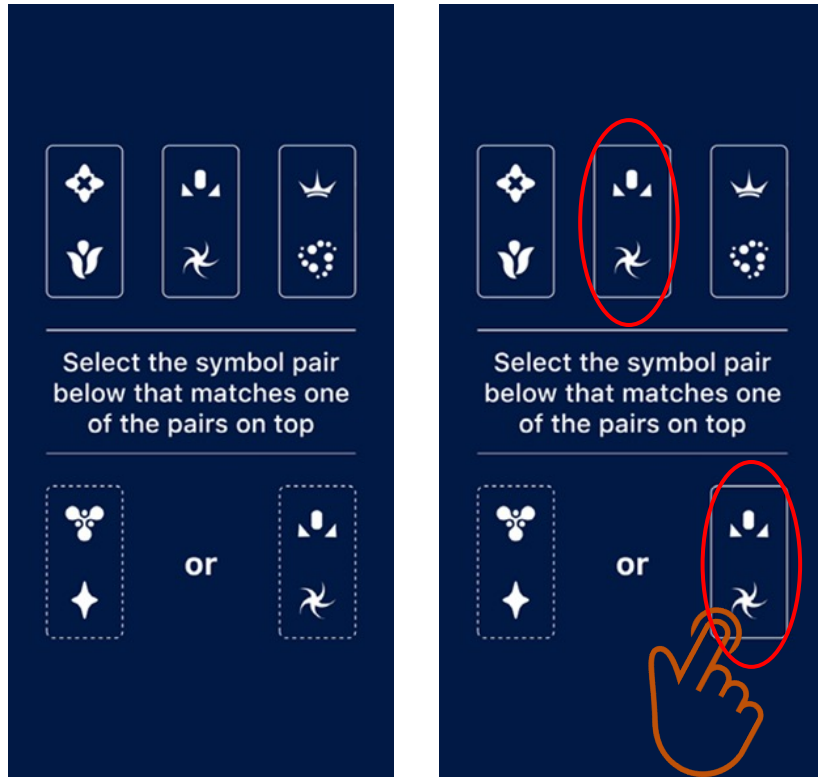3. 3-min PVT

5-min / Session

When completing the games..

- Sit in an **upright** position

- Hold the phone in your non-dominant hand, **complete the game using your dominant hand**
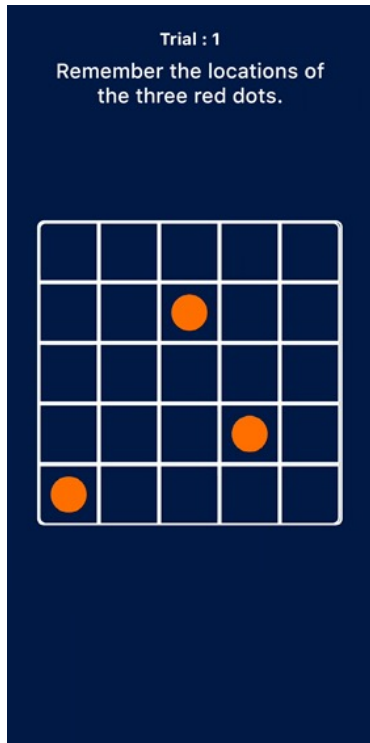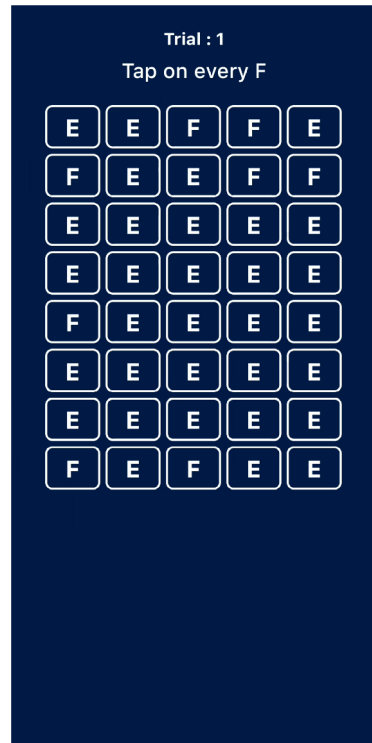
Game 1 – Symbol Search

Up to 12s

1. 5 pairs of symbols will be shown for each trial
2. *Tap the pair below that matches one of the pairs above*
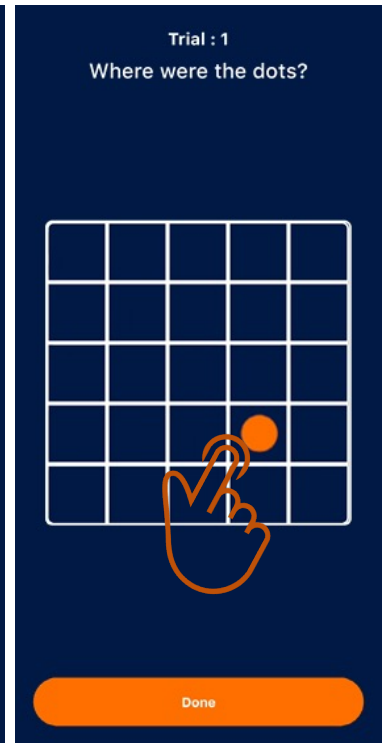
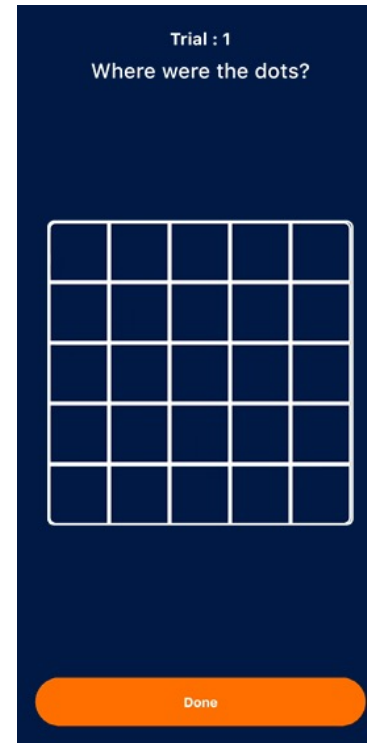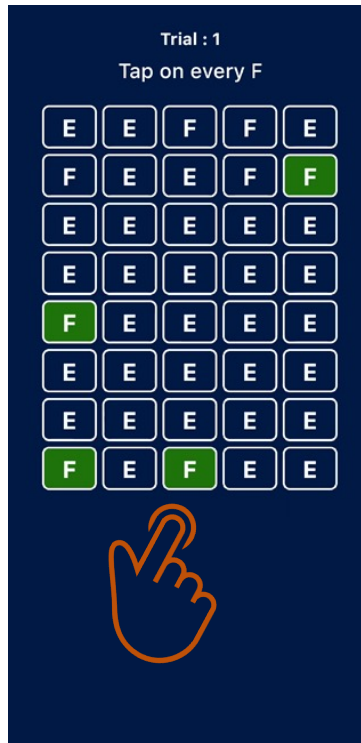*Try to be <u>as fast and as accurate</u> as possible!*
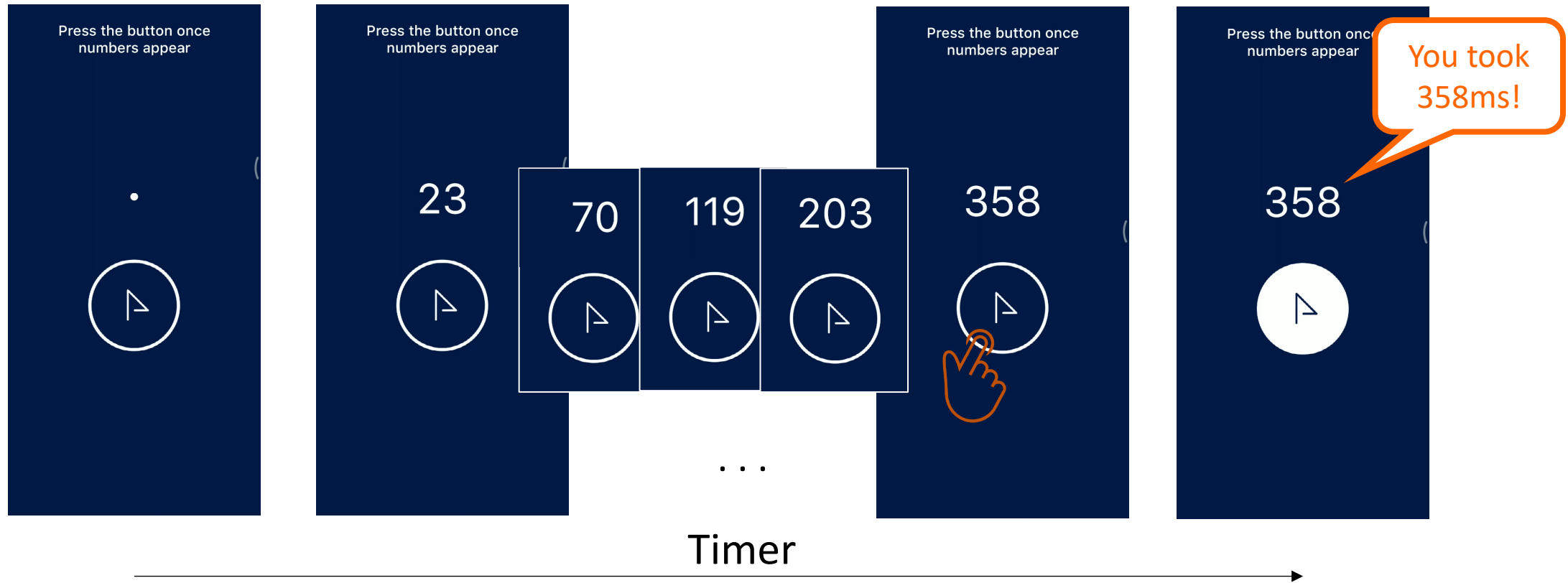
Game 2 – Dot Memory

3s

8s

Up to 10s

1. Remember the locations of the three dots

2. Tap on every 'F' within the time limit

3. Place the dots back to where they were (tap once to place, tap again to remove)

   * You need to identify enough hidden 'F's or else points from that trial won't count!

Game 3 – 3-min PVT

Timer

1. Tap the button as fast as you can once the numbers start appearing (timer starts)
2. The value at the point of your button press reflects your reaction time in milliseconds

Try to be as fast as you can but don't tap until the timer starts!

Z4IP App: Short questionnaire

Screen 1 (1 / 7):

Questionnaire

Timing of your longest sleep period (last 24 hours, excluding naps):

Bedtime
(in bed and preparing to sleep)

23 59
00 : 00
01 01

Wake time
(awake and not intending to snooze)

23 59
00 : 00
01 01

How was your sleep?

- ○ Very Good
- ○ Good
- ○ Fair
- ○ Poor
- ○ Very Poor

Screen 2 (2 / 7):

Questionnaire

How are you feeling right now?

50
0 — 100
Negative   Positive

How sleepy are you feeling right now?

50
0 — 100
Not at all sleepy   Very sleepy

How motivated are you feeling right now?

50
0 — 100
Not at all motivated   Very motivated

Screen 7 (7 / 7):

Questionnaire

Were you on-call/working a night shift yesterday night?

- ○ Yes, as scheduled
- ○ Yes. due to roster change (within the last 24h)
- ○ No

Z4IP App: Time-use diary