

Pre-2020 Follow-Up Cognitive Testing

This document provides background information on the cognitive testing data collected during the pre-2020 follow-up phase of the AIRWAVE study. It outlines the time frames, testing structure, participation details and key differences compared to the post-2020 follow-up phase. The information here should give most analysts sufficient context to understand how the data were collected and organised.

More information on the Study is available at <https://police-health.org.uk/>.

Context and Timeline

The pre-2020 follow-up data were collected across three main periods:

1. November 2015 – December 2016
 - 5 cognitive tests administered
2. August 2017 – December 2018
 - 5 cognitive tests + Survey
3. June 2019 – March 2020
 - 9 cognitive tests + Survey

Key Methodological Differences

- During the pre-2020 follow-up phases, all cognitive tests were conducted in clinics.
- In contrast, the post-2020 follow-up allowed participants to complete the tests on their personal devices, reflecting a shift in data collection methods after the COVID-19 pandemic.

Participation Overview

- Unique participants: 14,431 (represented by 14,749 BARCODEs)
- Some participants completed cognitive testing up to three times, tracked by the variable `ATTEMPT_NUMBER`.
- Total cognitive tests started: 14,923
- Total cognitive tests completed: 14,512

Data Quality and Anomalies

Some records did not follow the expected test order. For example, participants might have completed the Surveys, Reaction, and then Vocabulary tests out of sequence. Unlike in the post-2020 follow-up, all such records are retained.

Standard Test Order

1. Surveys
2. Reaction
3. Quiz
4. Number
5. Pairing
6. Stroop
7. Matrices
8. Vocabulary
9. Trails
10. Symbols

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