Lab 1 - Data Collection

1 Introductions

This lab in intended to collect data that will be used for several purposes throughout the semester.

1.1 Tests

Below, you will find the links to several cognitive tests. Wait for further instructions from your instruction before start taking the tests. This is important because becoming familiar with the tests before other students will likely add noise to the data.

1.1.1 1. Verbal Memory Test

This test measures how many words you can keep in short term memory at once. The number of words you need to remember grows continually, until you can't keep them in your head anymore. Go as long as you can. You have 3 strikes until game over. Your score is how many turns you lasted.

1.1.2 2. Number Memory Test

The average person can only remember 7 digit numbers reliably. Can you do more? You will be presented with a single-digit number and be asked to remember it. The numbers will increase unit you can no longer remember.

1.1.3 3. Sequence Memory Test

Memorize the sequence of buttons that light up, then press them in order. Every time you finish the pattern, it gets longer. Make a mistake, and the test is over.

1.1.4 4. Chimp Test

This is a test of working memory, made famous by a study that found that chimpanzees consistently outperform humans on this task.

In the study, the chimps consistently outperformed humans, and some chimps were able to remember 9 digits over 90% of the time.

This test is a variant of that concept, that gets increasingly difficult every turn, starting at 4 digits, and adding one every turn. If you pass a level, the number increases. If you fail, you get a strike. Three strikes and the test is over.

1.1.5 5. Typing Test

This is a simple test of typing speed, measuring words per minute, or WPM. The standard measure of WPM is (number of characters / 5) / (time taken). By that measurement, "quick brown fox" is 15 characters, including spaces. The recorded score is WPM * Accuracy.

1.1.6 6. Reaction Time Test

This is a simple tool to measure your reaction time. When the red box turns green, click on the screen as soon as you can. Then, click anywhere to start the new trial.

1.1.7 7. Aim Trainer Test

Click the targets as quickly and accurately as you can. This tests reflexes and hand-eye coordination. Once you've clicked 30 targets, your score and average time per target will be displayed.

1.1.8 8. Visual Memory Test

Every level, a number of tiles will flash white. Memorize them, and pick them again after the tiles are reset! Levels get progressively more difficult, to challenge your skills. If you miss 3 tiles on a level, you lose one life. You have three lives. Make it as far as you can!

2 Submission

1. Visit the Human Benchmark Dashboard and copy the permalink associated with dashboard.
2. Visit the Lab 1 assignment in Canvas and submit the link.
3. While in class, you will be asked to input your scores on a spreadsheet. The data will be used throughout the semester for various purposes.

Link to create `ID`: https://www.getuniqueid.com

- Visit the link above
- Copy ONLY the first sequence of characters + the first dash (9 characters including the dash)
- Paste the code sequence elsewhere (i.e., Word doc)
- Add the current year and semester (i.e., spring2023 or fall2024) after the dash
- The final form of your `ID` should look like this: `c7b96573-spring2023`

Submit scores here: https://bit.ly/3JYNheP

- Visit the Human Benchmark Dashboard

- Open the link above; it will take you to a online spreadsheet (Google Sheets)
- Enter your `ID` in the `ID column`
- Select the first test you completed under `Test`; then select `Sex`, `Term`, `Year`, and input the raw `Score` and the `Percentile` associated with the test you took.
- Repeat this process for the other tests

3 Grading

Total points available: 80 points.

Component	Points[1]
Test 1	10
Test 2	10
Test 3	10
Test 4	10
Test 5	10
Test 6	10
Test 7	10
Test 8	10

[1] To earn full points on each test, students must follow the instructions, take the test, and submit the scores and their respective percentiles via Canvas.