

HCI Practical Lab Manual

Practical 10 - A/B Testing + ANOVA + Fitts' Law Combined Experiment

Aim:

To compare two UI versions using A/B testing, ANOVA, and Fitts' Law.

Objectives:

1. Create two UI variations.
2. Conduct an A/B test.
3. Record completion time and accuracy.
4. Apply Fitts' Law to performance.
5. Use ANOVA for statistical significance.
6. Recommend better design.

Tools / Software Required:

- Python with Tkinter / Web UI builder
- Excel / Python for ANOVA
- Stopwatch

Procedure:

1. Build two UI versions.
2. Assign participants randomly.
3. Record data for time and errors.
4. Apply Fitts' Law and ANOVA.
5. Interpret results.

Submission Format:

- Test data table.
- Fitts' Law calculations.
- ANOVA results.
- Recommendation report.