

Script: Comparing Bar Chart Authoring with Microsoft Excel and Tangible Tiles.

Notes:

All even participants do the tiles task first

All odd participants do the excel task first

Before arrival

1. Check save files/screen captures/camera files of previous participant. Make sure all files are there before refreshing

When participant arrives

1. **Welcome.** Introduce self, thank participant for taking part in the study.
2. **Explain.** Tell the participant the format of the study. Tell participant that they will be doing two tasks with Excel + Tiles. Explain that they will be completing the Visual Literacy test before, between, and after the two tasks. Explain questionnaires. Explain their ability to withdraw at any time. Explain remuneration amount.
3. **Consent form.** Participants fill out consent form.
4. **Pre-session questionnaire.** Contains questions on demographics and experience.
5. **Visualization Literacy Test 1.** Ask participant to move to computer table. Load up Visualization Literacy test, explain what it is and how to go through it.
6. **Save score of VL test 1.**
7. **Start task 1.** Excel or tiles.

Task: Excel

1. **Primer test – Excel.** Ask participant to come to computer table and complete. Save results.
2. **Load software.** Load up Excel, screen recorder, and hand them Excel dataset.
3. **Ask them to create a visualization on it.**
4. **Start timer.**
5. **Annotations.** If necessary, ask them to color and annotate.
6. **Complete.** Stop timer. Take dataset.
7. Screenshot and save visualization and Excel sheet. Load screenshot into **Reading test – Excel.** Save result. Stop camera.
8. **Complete Excel questionnaire.**

After first task

1. Complete **Visualization Literacy Test 2.** Save score

Task: Tiles

1. **Primer test – Tiles.** Ask participant to come to computer table and complete. Save results.
2. Turn on cameras at tiles table. Ask participant to come to tiles table. Hand them Tiles dataset.
3. **Ask them to create a visualization on it.**
4. **Start timer.**
5. **Annotations.** If necessary, ask them to annotate.
6. **Complete.** Stop timer. Take dataset.

7. Cover visualization with box. Load **Reading test – Tiles**. Unobscured visualization when timer starts for questions. Save result. Stop camera. Do not clean tiles.
8. **Complete Tiles questionnaire.**

After all tasks

1. **Visualization Literacy Test 3.** Save results
2. Ask participant to fill out **end session survey**.
3. **Interview.** Turn on side camera. Load up screenshot of visualization on computer.. Ask participant to come to tiles table. Ask interview questions. Stop camera.
4. **Study is now complete.** Ask participant if they have any questions. Thank participant. Hand them remuneration and ask them to sign confirmation sheet saying that remuneration has been received.
5. **Reset** tiles table, excel table, camera for next participant.