

Experiment Flow

This document outlines the structure of performance experiments we conduct on Mechanical Turk.

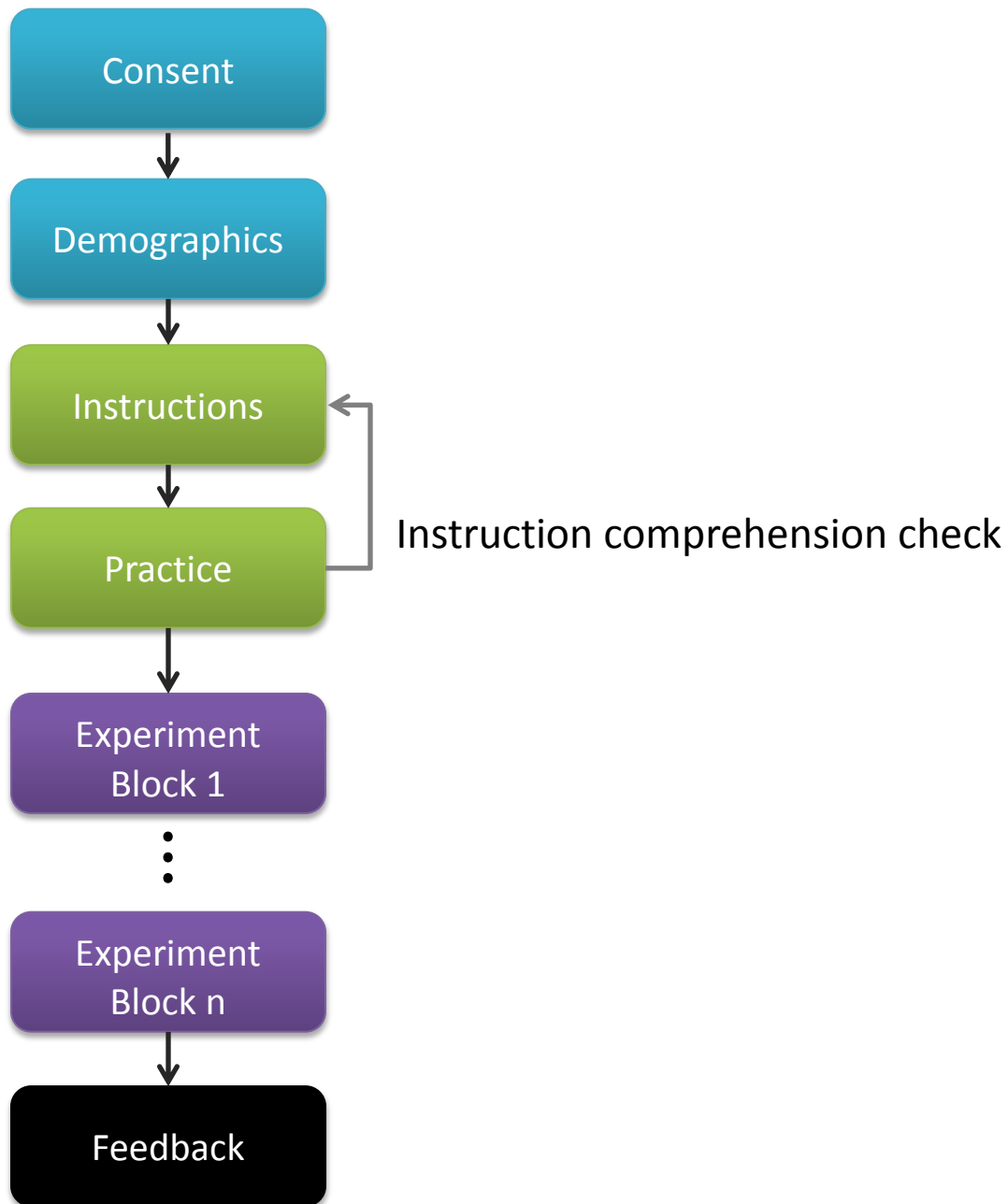


Figure 1: High-level view of the experiment flow

1. Consent

Consent

Please consider this information carefully before deciding whether to accept this task.

PURPOSE OF RESEARCH: To examine the menu selection performance of predictive menus.

WHAT YOU WILL DO: You will be asked to perform a number of menu selections from a menu interface in the document area of your browser. A prompt will indicate which item to select. The selections will be spread over multiple short blocks, between which you can take breaks.

TIME REQUIRED: Participation will take approximately 20 minutes.

RISKS: There are no anticipated risks associated with participating in this study. The effects of participating should be comparable to those you would experience from viewing a computer monitor for 20 minutes and using a mouse.

COMPENSATION: Upon completion of this task, you will receive a code to enter on the Amazon Mechanical Turk task page, and you will receive the amount that was indicated on the task page.

CONFIDENTIALITY: Your participation in this study will remain confidential. Your responses will be assigned a code number. You will NOT be asked to provide your name. You will be asked to provide your age and gender. Throughout the experiment, we may collect data such as browser type, operating system version, mouse movements, and error rates.

PARTICIPATION AND WITHDRAWAL: Your participation in this study is voluntarily, and you may withdraw and return the task to Amazon Mechanical Turk at any time. You will receive a compensation only if you complete the task. You may withdraw at any time by closing the web page of the task.

AGREEMENT: The nature and purpose of this research have been sufficiently explained and I agree to participate in this study. I understand that I am free to withdraw at any time.

I agree and will participate in this study.

Figure 2: A standard consent form is displayed at the beginning of the experiment.

2. Demographics

First a Few Questions

Age

Gender ▼

Pointing device ▼

Any difficulties operating a computer
(tremor, difficulty moving the mouse, etc.)
This will not affect your pay!

Figure 3: Collecting demographics. All questions are optional to encourage honest reporting. No participants are denied reimbursement based on their answers, however some may be excluded from the analysis: e.g., participants with medical conditions.

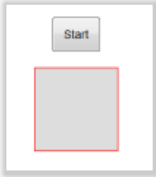
3. Instructions

Instructions

What do I need to do?

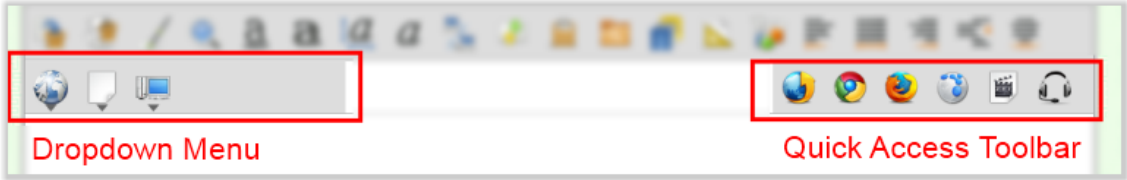
You need to use your mouse to select an item from a dropdown menu **as quickly as possible while avoiding errors**. You will perform 190 such selections in total, divided into four sections (one practice and three main sections).

Which item should I select?



At every step the item you need to select will be displayed in the grey square box in the center of the screen.

Where do I select the item?



Dropdown Menu **Quick Access Toolbar**

You can find the item you need to select in one of the three categories of the dropdown menu. You might also be able to find the same item in the quick access toolbar, which will help you select it faster. Use it to save time!

Anything else before I start the practice section?

Please remember to:

1. Work as quickly as possible
2. Avoid errors
3. Focus on the task and avoid distractions

[Start a practice block](#)

Figure 4: The instructions section explains the task.

4. Practice

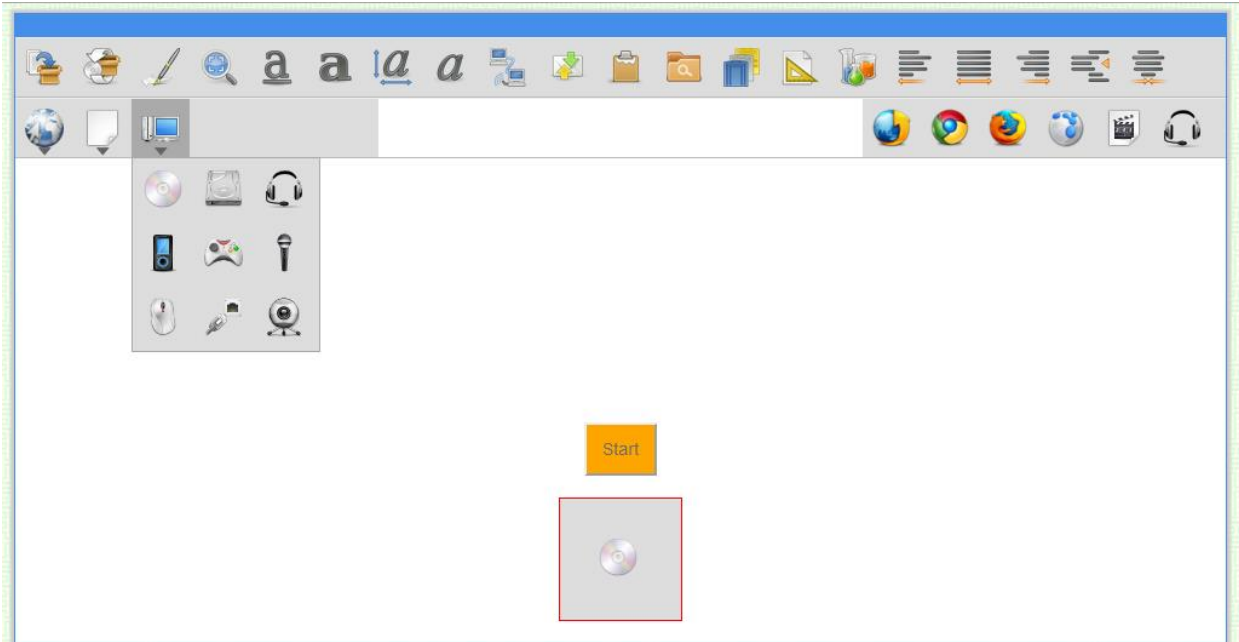


Figure 5: The practice section serves two purposes. First, it allows the participant to acquaint himself with the interface and the nature of the task. Second, it tests whether the participant understood the instructions.

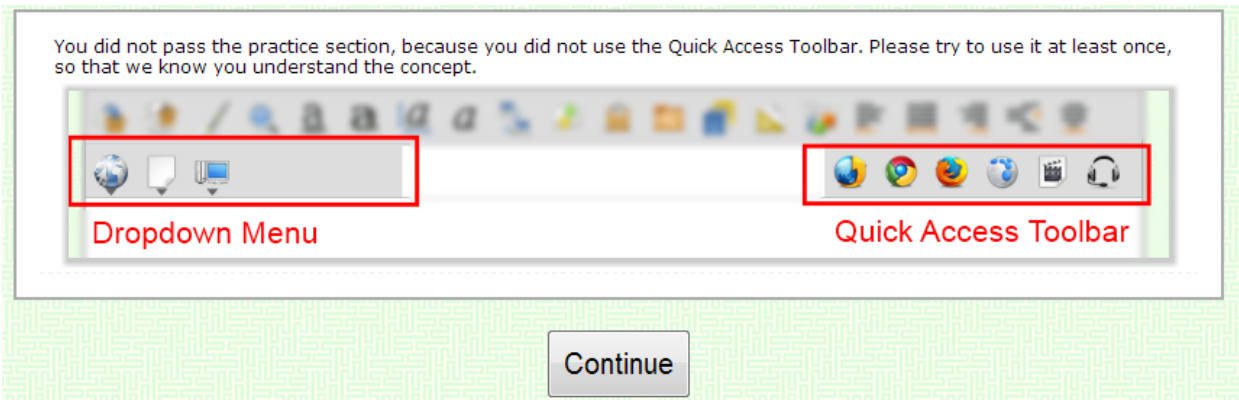


Figure 6: If the participant failed to demonstrate comprehension of the instructions (specifically, if the participant fails to use the Quick Access Toolbar at least once), he is asked to repeat the practice section until he passes.

5. Experiment Block 1, 2, ..., N

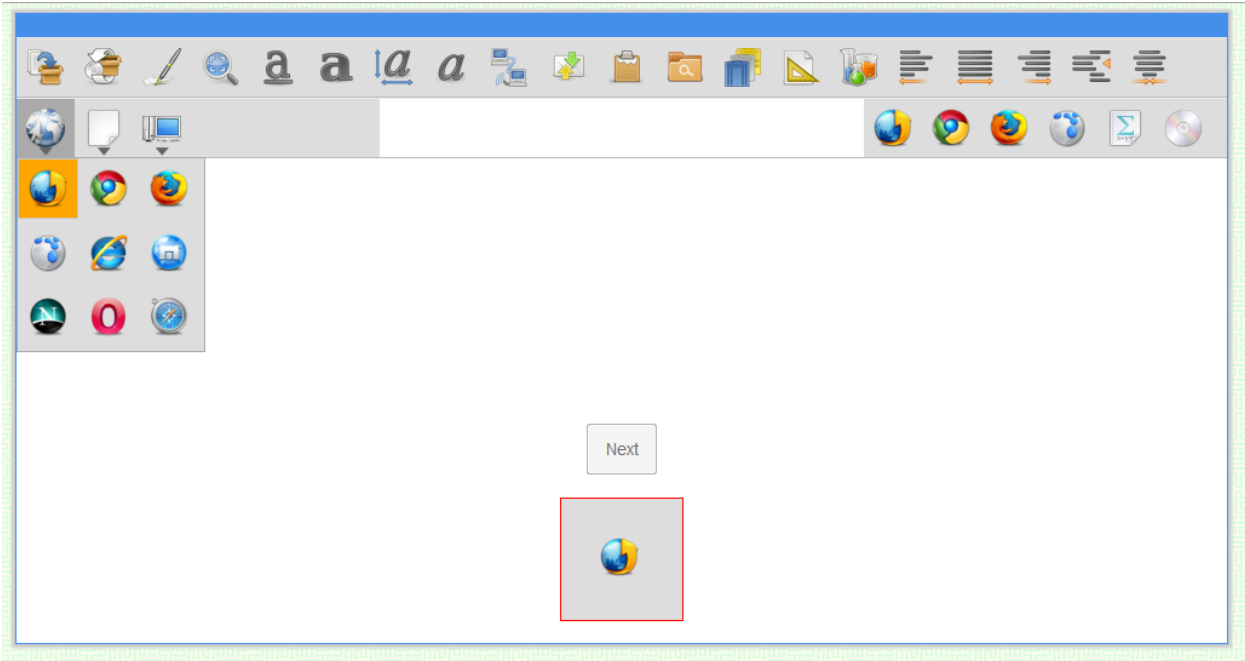


Figure 7: After successfully passing the practice section, the participant completes N experiment blocks, in which the variables of interest (speed, accuracy, etc.) are measured. Depending on the experiment the first few blocks and/or the first few trials of each block may be discarded as they serve as a warm-up and may not be indicative of the actual performance. If this is a within-subjects experiment, different blocks will represent different test conditions.

Implementation issues:

- All HTML resources (images, scripts, etc.) are preloaded before the participant begins each block.
- Performance data (logs) are sent back to the server asynchronously, at regular intervals.
- If the experiment is graphics-intensive (uses HTML5 Canvas), the browser rendering performance in terms of Frames per Second (FPS) is recorded.

Thank you for completing block 1 of 4. Next is block 2 of 4 consisting of 6 selections.

Continue

Figure 8: After each block the participant receives a progress update.

6. Feedback



The image shows a feedback form with the following elements:

- A label "Code:" followed by a small rectangular text input field.
- A label "Any comments?" followed by a larger rectangular text area for comments.
- A "Submit" button located at the bottom left of the form.

Figure 9: At the end of the experiment, the participant has the opportunity to provide any feedback on the Amazon Mechanical Turk HIT page. The participant most commonly comment about the difficulty or enjoyment of the experiment. Occasionally, there are reports of technical issues.