

16.400/453 Project #2

Visual vs. Auditory Reaction Times

Due ^ Ž

The goal of this experiment is to determine whether a subject population has faster visual or auditory reaction time to a stimulus. Go to <http://cognitivefun.net/> and become familiar with the visual and auditory reaction time tests (Tests #1 & 3 under Attentional Tests.). Teams should be no larger than 3, and you will need at least 10 participants.

There are two testing phases, 1) the visual and auditory reaction time tests with no distraction, and 2) the visual and auditory reaction time tests with distraction. In the distraction case, have the participants estimate the length of time between clicking the start button and the presentation of the signal. Make sure you use the same computer for all tests.

Each participant should have 3 practice trials for each phase and then 10 test trials. This should be a within subjects experiments and you should counterbalance the presentation of the 4 tests (visual no distraction, visual with distraction, audio no distraction, audio with distraction.)

Final Report

Each team will produce a final report, which should have the following subsections:

- Introduction
- Method
 - Participants, including your test matrix (the order in which you assigned participants to conditions)
 - Apparatus
 - Procedure
- Results
- Discussion
- Conclusion

The results section should contain the appropriate statistical analyses. In the discussion section, be sure to discuss the implications of your results for cockpit design, as well as for driving.

MIT OpenCourseWare
<http://ocw.mit.edu>

16.400 / 16.453 Human Factors Engineering
Fall 2011

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.