Lab 1: Change Detection

# Joe Cool

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**Introduction**

Change detection is the ability to detect change. I feel that this is an extremely fascinating topic. Scientists have studied this alot. For lab, we wanted to look at whether people are slower detecting change with a flicker versus a not flicker.

After learning about this in class, I thought about this one time when my friend ran into a pole while walking. She looked down at her phone and looked back up and didn’t even notice the pole. She totally broke her nose. This makes me feel like change detection definitely exists. But we want to test this in the lab. Here’s what we did:

**Methods**

**Participants.** I recruited myself and four people to my experiment. The participants’ ages were 12, 32, 64, and 25 (average age = 42). There were 2 men and 3 women. I found them on a street corner and they sounded like native English speakers.

**Materials.** I used CogLab to run the experiment on my iPad. The stimuli were about 1x1.5 inches.

**Procedure.** Participants were given 16 trials. On each trial they were given a series of images and had to tell whether the images were the same or different from the previous image. The images would continue to swap between from one image to the other until the person saw a change or decided that there was no change. There were four conditions, making this a 2x2 design. The conditions were flicker or no flicker (Flicker: white screen between each image. No flicker: no white screen). In half of trials there was a change and in half there was no change.

**Results**

Using a pear sampled t-test, I analyzed the results. I found a difference between flicker and no flicker (p < 0.05), thus proving that our means are differentiated and also change blindness exists.

**Discussion**

Detection of changes was harder for the people to notice because the flickering happened. It was easier when the flickering did not happened. I believe that change detection awareness is important because you could hurt yourself like my friend did. I do not want other people to hurt themselves.