

Sample Study Preregistration (based on questions at [aspredicted.org](http://aspredicted.org))

1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

Compared to word pairs of the same size, will a difference in text size have a larger detrimental effect on decision speed for small size difference than large size differences? When people decide which of two objects is larger, they may compare the size of mental images of the two objects, especially when the two objects are close together in size. This process may be more difficult when the text size for a pairs of words is different.

3) Describe the key dependent variable(s) specifying how they will be measured.

The main dependent variable will be the total amount of time it takes to make decisions for 24 word pairs.

4) How many and which conditions will participants be assigned to?

There are two independent variables. The first, *size difference*, is a within-subjects variable: for one list of word pairs, there is a large size difference, but for the second list the size differences are small. The second variable, *text size*, is a between-subjects factor: some participants will be tested using lists in which the text size is the same for all words, while other participants will be tested using lists that contain one word printed in small text and one word in large text.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

Our primary analyses will be graphical (plots of mean scores in each condition, along with a measure of variability such as a confidence interval). We will also conduct a 2 x 2 ANOVA (both classical and Bayesian) to examine the two main effects and the interaction.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We plan to include all scores in the analysis. All decisions about any outliers will be done post hoc, and will be identified as such.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

There are 15 students in class, and each student will be asked to test two people.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

No.

## PSY 222 Fall 2022: Class Research Study

Each student in class will test two research participants. Test one person using the lists that are all the same text size. Test a second person using the other list (with words of different sizes).

Obtain the consent of the first participant. Flip a coin to determine which test sheet to use: Heads = same text size, tails = different text sizes.

Have all the necessary test materials ready (test sheets, pencil, timer). Test each person individually in a location with no distractions.

Start the watch when they circle the first item, and stop it when they do the last one. Record the time under the list.

Read these instructions:

Thank you for participating in my study of decision-making speed. In a minute I will give you a list of 24 word pairs, such as elephant-bird. Your task is to circle the larger of the two things (elephant). Do this for all 24 pairs as quickly as you can. However, avoid making mistakes, because you will be penalized for each error. I will time how long it takes you to complete the list. After you do the first list, I will time you on a second list. Remember, go as fast as you can but avoid making mistakes. Ready? Go!

After testing is complete, record (1) Does the participant report being dyslexic? (2) the participant's gender, (3) the participant's age, (4) the number of errors made on each list.

hog	<b>cow</b>
ant	<b>roach</b>
<b>duck</b>	dove
moth	<b>ant</b>
flea	<b>bee</b>
<b>bear</b>	hog
ant	<b>moth</b>
horse	<b>sheep</b>
flea	<b>roach</b>
deer	<b>cow</b>
<b>pig</b>	fox
<b>frog</b>	rat
<b>roach</b>	ant
cat	<b>rat</b>
<b>rat</b>	duck
moth	<b>flea</b>
<b>ant</b>	bee
<b>frog</b>	moth
<b>wolf</b>	cow
<b>wolf</b>	bear
<b>flea</b>	roach
cow	<b>sheep</b>
hog	<b>cat</b>
<b>hog</b>	cat

rat	<b>horse</b>
moth	<b>wolf</b>
<b>rat</b>	elk
<b>quail</b>	whale
<b>bear</b>	quail
<b>roach</b>	whale
<b>horse</b>	fox
ant	<b>elk</b>
<b>bear</b>	rat
<b>quail</b>	cow
mouse	<b>lamb</b>
<b>fox</b>	worm
<b>cat</b>	moose
whale	<b>dog</b>
duck	<b>flea</b>
<b>cow</b>	rat
horse	<b>quail</b>
<b>flea</b>	wolf
bee	<b>hog</b>
bear	<b>flea</b>
bear	<b>frog</b>
<b>hog</b>	ant
roach	<b>horse</b>
moose	<b>frog</b>

rat horse
moth wolf
rat elk
quail whale
bear quail
roach whale
horse fox
ant elk
bear rat
quail cow
mouse lamb
fox worm
cat moose
whale dog
duck flea
cow rat
horse quail
flea wolf
bee hog
bear flea
bear frog
hog ant
roach horse
moose frog

hog cow
ant roach
duck dove
moth ant
flea bee
bear hog
ant moth
horse sheep
flea roach
deer cow
pig fox
frog rat
roach ant
cat rat
rat duck
moth flea
ant bee
frog moth
wolf cow
wolf bear
flea roach
cow sheep
hog cat
hog cat