**Investigation 3.1A: Memory Study**

You will be asked to study a sequence of letters for 20 seconds and then to write down as many as you can remember, in order. Your score will be the number that you remember correctly before your first error of any kind.

a) Is this an observational study or an experiment? Explain.

b) Identify and classify the explanatory and response variables.

c) Did this study design make use of randomization? Random assignment, or random sampling, or both, or neither? How, and for what purpose?

d) Did this study design make use of blindness? How, and for what purpose?

e) Produce graphs that compare the results between the two groups. Do the graphs suggest that the two “treatment” groups tended to produce different responses? Explain.

f) If analysis reveals that the differences between the two groups are “statistically significant,” meaning that they are unlikely to occur by random variation if there were no underlying difference between the groups, would you have reason to conclude that one treatment caused lower/higher performance on the task? Explain.

g) How, if at all, did this study control for the fact that some people are better memorizers than others?