**PrepGuide/IT-6**

Based on Heath, Ch. 10 (Quasi-Experiments)

**NAME:**

**IMPORTANT:** Deposit a Microsoft WORD document on Moodle in the space provided. We cannot read or accept ANYTHING else, not .pages, not pdfs, nothing else.

**Directions:** Please type your answers below each question. PLEASE leave the question in the document, spacing as needed. *Use your own words*. Recall, we are not as interested in “the correct answer” as we are in clear evidence of the *effort and thoughtfulness* of your attempt. You may be brief, yet still thorough. Try your best.

**1. Imagine you wanted to design a quasi-experiment to study the hypothesis that joining a sorority causes students to become more concerned with their physical appearance.**

1. Design four studies, one of each of these Q-E types to answer this question above. Explain how you would design each study, and create a hypothetical graph of each study’s results. Finally, explain whether or not each study can support (more or less) a causal statement and why or why not (e.g., which of the threats to internal validity discussed in the chapter (pp. 251-257) could reasonably be at work, if any?) During class, I will assign different groups to go to the board to show your design and graph.
   1. Nonequivalent control group design (posttest-only)
   2. Nonequivalent control group design (pretest/posttest)
   3. Interrupted time-series design
   4. Nonequivalent control group interrupted time-series design

B. Why might it be more practical to conduct a quasi-experiment on this general research question, rather than a true experiment?

**2. Below are made-up research scenarios, each of which contains a major threat to internal validity discussed in chapter 10 (selection, maturation, history, instrumentation, testing, regression toward the mean, attrition). Simply identify the most plausible threat, but take care not to invent something that is not given to you in the question itself. For example don't create a far-fetched example of a history event that is not present in the actual scenario.**

A. Children recently enrolled at a nursery school are having trouble adjusting to the teacher and the scheduled activities. The head area teacher (Dr. Snape) designs a program of story telling that is intended to help them adjust. Four weeks later, observations are made and the children are found to be better adjusted than they were before the program began.

B. Mad-Eye sought help for his excessive drinking from Dr. Parker. After a series of tests, he was diagnosed with alcoholism. Dr. Parker began a new therapy designed to eliminate the urge to drink within a two weeks. Mad-Eye’s friends and family, once distanced by his drinking behavior, now are kind and patient with him as he goes through this ordeal. Two weeks later, he’s dry as a bone – no urge to drink whatsoever. Dr. Parker is thrilled with the success of her new therapy.

C. Ever since she played football in high school, Rachael has had a persistent back problem, which was worse on some days than others. One time, when she could stand the pain no longer, she went to see a sports trainer, who wrapped her in some K-tape around the affected areas. The next day she felt much better. A few weeks after that, she experienced the intense pain again and had another K-tape wrap, again resulting in relief for the next little while. This happened a third time about two months later. Rachael was initially skeptical about this treatment, even after her first visit, but having had three successful encounters with the K-tape she was now convinced that the K-tape was responsible for her feeling better afterwards.

D. Dr. Smith learned that one sorority on campus had purchased several Mac computers and another sorority had purchased several Windows-based computers. Dr. Smith was interested in whether the type of computer affects the quality of students' papers and so went to each of the sorority houses to collect samples of papers from the members. Two graduate students in the English department then rated the quality of the papers. Dr. Smith found that the quality of the papers was higher in one sorority (Mac) than in the other (Windows).

E. A hypnotist claims that hypnosis can cause increases in strength. To “prove” his claim the hypnotist has participants see how many times they can squeeze a hand-grip in two minutes. Then, he hypnotizes them and has them practice for two weeks. At the end of 2 weeks, they can squeeze the hand-grips together many more times than they could at the beginning.