Name

Professor name

Subject

Date

**Topic 37 exercise 250**

1. The purpose of the experiment is to determine cause-and-effect relationship of pretest and posttest with experimental treatment.
2. The researchers can find that there is no bias in assignments by assigning participants randomly to groups.
3. The symbol ‘O’ stands for observation measurement.
4. The symbol ‘X’ stands for experimental treatment.
5. The name of potential problem caused by pretest is pretest sensitization or reactive effect of testing.
6. True experiment design that has no pretest is randomized control group design.
7. The drawback to Solomon randomized four-group design is that each must have sufficient number for yielding reliable results.
8. True experiment designs are easy to spot because they are characterized by random assignment to treatment.
9. An experimental problem for which researcher would not be able to assign participants at random to conditions to pretest. In this experiment it is not possible to assign participants randomly.

R X O

R O

1. If I will be conducting experiment I will be using true experimental design. This is because it is possible to spot them easily by characterizing random assignments to treatments. My experiment is not on treatment that is mandated by law so it would be appropriate to randomly assign participants to groups. I will use this experiment for comparing the impact of treatment on two groups. Even without pretest I would be able to find if the treatment is more effective than the control group.

**Topic 38 exercise**

1. The name of threat that indicates that taking pretest might effect the performance of protest is threat to internal validity.
2. When students are watching a program and they the name of alphabets to be different from what was taught to them in treatment leads to the problem of history. This is because the names were told to the students for helping them in creating self-concept but if they learn new information they might improve the self-concept.
3. If observer is more tired and less astute during making posttest observations than pretest observation the threat of instrumentation. This reflects changes in the measurement procedure. The observer fails to notice signs of self-concept.
4. Non-random assignment of participants to experimental and control group pose threats of selection. The selection is not made randomly.
5. If infants naturally improve in visual acuity and perform better at the end of experiment this leads to the threat of selection-maturation interaction.
6. Statistical regression with operate under circumstances of selected participants on the basis of extreme scores. Those who appear to be low on screening test will score high.
7. True experimental design can be used for overcoming the threats to validity. By assigning participants randomly will remove bias.
8. The interpretation is flawed because it exhibits interval validity threat of selection-maturation interaction. This is because rates of maturation have impacted the self-concept of the participants.
9. If I am conducting an experiment of improving the behavior of aggressive teens I believe that it would be facing certain threats of validity that include maturation. This is because the participants will mature naturally which does not reflect the influence of treatment.

**Topic 39 exercise**

1. The validity that deals with the question of whether a researcher can generalize with confidence to a larger population in a natural setting is selection bias. This is because ability of generalizing population is limited.
2. Whether the treatment is directly responsible for any changes observed in the experimental settings leads to the threat of reactive effects of experimental arrangements. This occurs because the experimental settings deviate from the natural or initial settings.
3. The threat that warns researcher for remaining careful in generalization when experiment is conducted to a non-random sample is reactive effect of testing or pretest sensitization.
4. When random sample of workers in factory are exposed five different kind of reward systems the researchers might experience the threat of multiple treatment interference. Generalization is risky in such situations because researchers might get large amount of data.
5. The results may not generalize to other classrooms without observer leads to the threats of external validity.
6. When a pretest causes change in participant leads to the threat of multiple-treatment interference.
7. A hypothetical experiment with high risk of internal validity and low risks of external validity is explained as; an experiment of controlling aggression among children by assigning groups randomly.
8. If I am conducting an experiment I will conduct experiment of controlling drug abuse among teenage groups. I would encounter threat of reactive effects of experimental arrangements. This is because the reduction in use of drugs will be due to the fact that experimental conditions are different from the natural settings.

**Topic 40 exercise**

1. Pre-experimental designs only offer limited value for determining cause-and-effect relationships. This us because they exhibit poor internal validity.
2. If a researcher administers new program to all students at school the comparison of the average scores of two groups are useful for determining affects of the program. By comparing the performance of the students who receive treatment with the students of control group it is possible to find the practical results. This will help in drawing effective comparisons.
3. The pre-test design used in question 2 is one-shot case study. This is used for determining how program improved the performance of the students.
4. If a researcher gives pretest of the knowledge of child abuse to a group of social workers, then give series of seminars based on posttest one-group pretest-posttest design.
5. One-group pretest-posttest design used in question 4 is useful for determining cause-and-effect relationship because it leads to multiple explanations. This is because students might exhibit achievement on posttest that was not revealed in pretest.
6. If a researcher has used one-group pretest-posttest design it would to explore cause-and-effect relationship. The role of instruction can be revealed.
7. I have used pre-experimental design in my profession by studying impact of 8 hours sleep on level of students concentration in classroom. The activity did not explained cause-and-effect relationship because I had studied only the role of sleep on student performance by comparing grades.
8. If I was conducting research I would not use pre-experimental designs because they lacks validity. I would prefer to use more reliable methods instead.

**Topic 41 exercise**

1. The name of designed diagram is non-equivalent control group design.
2. The design in question 1 show that the participants were not assigned at random to the groups because it consist of two intact groups. The design also depict threats of selection, mortality and interaction.
3. If the researcher uses matching for forming two groups, the resulting experiment will be better than true experiment. This is because by forming groups internal validity of the results is improved.
4. The main advantage of equivalent time-sample designs is that it serves both the control participants and experimental participants. The groups are identical in general characteristics.
5. The main disadvantage of equivalent time-sample designs is that there is strong probability of multiple-treatment interference.
6. In psychology ABAB is a simple group design in which A and B represent alternative treatments.
7. The researcher will have a longer baseline in case of class A because much variation has been observed in amount of calling out.
8. In conducting research I will be using quasi-experiment because they offer better validity. The results could be compared between groups that are reliable.

**Topic 42 exercise**

1. A confound is a source of confusion about explanation for a given difference.
2. The name of the effect that refer to the possibility that control group might become aware of inferior status is Hawthorne effect.
3. Formal name of attention effect is Hawthorne effect.
4. Other group than experimental and traditional used to control Hawthorne effect is control group with attention.
5. The term placebo effect refers to the tendency of improving among individuals.
6. The type of experiment in which neither participants not individuals dispense the drug is a double-blind experiment.
7. A demand characteristic is a cue that let participants know what could be results of the experiment.
8. If I was a participant in an experiment I would try to guess what is the hypothesis of the researcher. I also believe that my guesses will impact my behavior throughout the experiment. This will affect the validity and reliability. I will not act naturally because I might want to show improvement in my behavior.
9. If I will be conducting an experiment I will definitely take measures for preventing potential sources of confounding identified in the topic. I would try to conceal the expectations. This will prevent participants from affecting the validity of the experiment. I would make sure that the participants are unable to find the hypotheses.