

CAUTIONS ABOUT THE PRACTICE EXAM

DEAR STUDENT: This practice tests consists of questions from past exams. By taking this practice test, you should gain an idea of whether you understand the course material as well as you think you do. Research studies have found that many students overestimate how well they know the material in their courses.

Before you take the practice test, please carefully read the CAUTIONS below.

CAUTION #1: These questions are only a **SAMPLE** of the many questions that could have been asked. Please don't come away from this test thinking that the content in the items below is the only content you need to study.

CAUTION #2: Trying to “Memorize” Answers to Practice Test Questions: A Dangerous Approach. Some students try to memorize the answers to the practice test questions, rather than use the questions as a way to measure whether they understand the underlying concepts. This can be a big mistake for two reasons. First, when you see a question on an actual exam, sometimes it may look similar to a practice test question, but if so much as a single key word is different, then it becomes a different question entirely and has a different answer. Sometimes students come to my office and say “Why did I get this question wrong? I put down answer C and on the practice test C was the correct answer.” And then I show them how they didn’t read the actual test question carefully enough, and that the actual test asked about Concept X whereas the practice test asked about Concept Y, even though the wording of the rest of the question was the same. On the actual test, read every question carefully and treat it as a “fresh” question.

CAUTION #3: Some students do not look at this exam until a day or two before the real exam, by which time they have done all the readings and have studied for the real test. Then they use this practice exam and the answer key as a way to measure how well they understand the material.

Other students are curious to see what types of questions are on the test, so they look at this practice test right away or before they’ve finished studying. Curiosity is understandable. But realize that if you look at this exam before studying, and then take the exam as a practice test after studying, your score may be inflated because you “knew” what questions were on this test in advance. Of course, if you look at the exam **AND** the answer key out of curiosity now, then the exam becomes worthless as a practice test later! So don't look at the answer key just out of curiosity!

KEEP SCORE: Score how many questions you answer correctly. Don't rely on a subjective impression (e.g., “I got most of them right” could mean you got 70% correct, which is less than a grade of C). To convert your practice test score to a grade, do the following.

1. Multiply the number of points you achieve on the practice test by 5. This converts the 40-point exam to a 200 point scale.

2. Look up the grade point on the grading scale (page 4 of syllabus). This tells you what the equivalent grade point of your practice exam would be.

EXAMPLE: George gets 34 items correct on the practice test.

$34 \times 5 = 170$. So, if the exams were graded using grade points, then a score of 34 points on an exam is equivalent to a 3.1 grade point.

SAMPLE EXAM 2

IMPORTANT: The questions in this “practice exam” cover material that I discussed in lecture, that your TAs presented in labs and/or discussion sections, and that your textbook covers. **As in this practice exam, your actual exams will include questions on material from the assigned readings, even if that material was not covered in lecture or by your TA.** With the permission of Dr. Beth Kerr, some items below are based on questions from her Psychology 209 exams: She uses the same textbook and covers much of the same material in class that we do. Other questions come from or are based on my past exams. These questions ARE ONLY A SAMPLE of the possible questions that could have been asked.

1. Suppose that your skeptical uncle complains that research on jury decision making conducted with students in the psychology department subject pool will not generalize to what people do when they actually serve on juries in the courtroom. Your uncle is complaining about the _____ of the research.
 - a. internal validity
 - b. construct validity
 - c. criterion validity
 - d. external validity
2. Dr. Jones wants to examine whether extraverted people have better facial recognition abilities than introverted people. He administers an introversion—extraversion personality test to 100 people. Based on the test scores, Dr. Jones forms two groups: Group 1 consists of the 20 people who had the highest introversion scores, and Group 2 consists of the 20 people with the highest extraversion scores. These participants then perform the same series of facial recognition tasks. The researcher records how well each participant performs these tasks. This study represents _____ in which introversion/extraversion is a _____.
 - a. a true experiment; a subject variable.
 - b. a true experiment; a manipulated independent variable
 - c. nonequivalent groups (natural groups) design; a subject variable
 - d. nonequivalent groups (natural groups) design; a manipulated independent variable
3. In Dr. Jones’ study (see Question 2), suppose that a separate one-hour session is held for each participant. Over the course of 5 days, 4 introverts and 4 extraverts participate each day. Dr. Jones uses a block randomization procedure to ensure that each day, 2 introverts and 2 extraverts will participate in the morning hours, and 2 introverts and 2 extraverts will participate in the afternoon hours. In this example, time of day (morning versus afternoon) best represents an:
 - a. independent variable.
 - b. dependent variable.
 - c. extraneous variable, but one which does not confound the results
 - d. extraneous variable that confounds the results (i.e., a confounding variable)
4. In a matched groups design, the matching variable is:
 - a. a factor that is believed to be correlated with the dependent variable
 - b. a factor that is believed to be correlated with the independent variable
 - c. always identical to the dependent variable
 - d. always identical to the independent variable

5. What does the letter X stand for in the table below?

RESEARCHER'S DECISION	STATE OF THE WORLD (Reality)	
	H_0 is True	H_0 is False
Fail to Reject H_0	X	
Reject H_0		

- a correct decision
 - a Type I Error
 - a Type II Error
 - the Power of our statistical test
6. Dr. Liebert wants to determine which brand of golf balls, brand A or brand B, is better (i.e., which brand travels a greater distance after being hit with – presumably – the same force). Five golfers each hit 50 brand A golf balls. Next, the same five golfers hit 50 brand B golf balls. On average, the brand B balls go significantly farther. Which of the following could explain the results?
- a warm-up effect
 - a change in the direction of the wind
 - brand B is better than brand A
 - all of the above are possible explanations
7. Sometimes a subject's behavior is affected by the mere knowledge that he or she is participating in an experiment. Historically, this has been termed
- the good subject effect
 - the Hawthorne effect
 - the bad subject effect
 - the evaluation apprehension effect
8. Researchers randomly assign individuals with Traumatic Brain Injury to an 8-week program that teaches how to recognize emotions or to a control group that receives an 8-week program that provides math instruction. At the end of the programs, the researchers measure the ability to detect the emotions shown by actors playing roles shown in videotapes. This research is an example of a: (Note: There are only 3 choices below.)
- true experiment using a between subjects design
 - true experiment using a within subjects design
 - nonequivalent groups (i.e., natural groups) design
9. If researchers select a stricter alpha level of .01 rather than .05, they increase the chance of making: (Note: There are only 3 choices below.)
- a Type I error
 - a Type II error
 - both a Type I error and a Type II error

10. Fifth graders will be randomly assigned to one of two Spanish language instruction programs using MATCHING based on reading scores (English) at the start of the program. Suppose that reading scores for 8 participants are: 50, 48, 47, 43, 42, 40, 37, 32. Which option shows a correct initial assignment (more than one correct assignment is possible but only one answer is possibly correct)?
- a. 48 47 40 37 to condition 1
50 43 42 32 to condition 2
 - b. 50 47 43 32 to condition 1
48 42 40 37 to condition 2
 - c. 47 48 37 32 to condition 1
50 43 42 40 to condition 2
 - d. None of the other answers could be correct
11. To claim that we have demonstrated a cause—effect relation between two variables, we must meet which of the following criteria?
- a. covariation, mundane realism, temporal order
 - b. mundane realism, covariation, elimination of plausible alternative explanations
 - c. mundane realism, elimination of plausible alternative explanations, temporal order
 - d. covariation, temporal order elimination of plausible alternative explanations,
12. Dr. Holman conducts an experiment. Each participant is placed in a room and performs a series of math problems. For half of the participants the room is kept quiet while they try to solve the problems. For the remaining participants, background music is broadcast into the room while they work on the problems. Dr. Holman records the number of math problems that each participant answers correctly. In this experiment, the _____ is the number of math problems that each participant answers.
- a. the independent variable.
 - b. the dependent variable.
 - c. confounding variable.
 - d. demand characteristic.
13. Suppose that all of the participants in Dr. Holman's experiment (see question 12) were math majors at the local university. Suppose also that Dr. Holman conducted his experiment properly (i.e., there were no confounding variables) and that the results indicated that participants solved more math problems when the room was quiet than when it had background music. Researchers at two other universities successfully replicate Dr. Holman's findings in experiments with math majors. Next, other researchers conduct follow-up studies using different populations of participants (e.g., English majors, athletes; children). These researchers fail to replicate Dr. Holman's findings, and instead find that participants perform equally well regardless of whether the room is quiet or has background music. This overall pattern of findings across studies most directly suggests that Dr. Holman's original research has _____ and _____.
- a. low internal validity and low external validity.
 - b. low internal validity and high external validity.
 - c. high internal validity and low external validity.
 - d. high internal validity and high external validity.

14. Tim is a college senior majoring in psychology. For his Honors Program thesis, he is going to conduct an experiment, and the participants will be students from Psych 101. According to an ethical guideline called _____, at the start of the study, before each student can begin to engage in the experimental task, it is Tim's responsibility to provide that student with a description of the research procedures and the potential risks and benefits of participating.
- right to privacy
 - informed consent
 - psychological risk
 - social risk
15. Which option below is not an essential characteristic of a true experiment?
- Experimenter manipulates one (or more) variables.
 - Experimenter measures one (or more) variables.
 - Experimenter attempts to eliminate plausible alternative explanations for why changes in the measured variable occurred.
 - Experimenter conducts the study in a laboratory setting.
16. Suppose that you wish to conduct an experiment using a within-subjects design. Given the fact that your experiment will have 6 separate experimental conditions, you should avoid using the _____ design because it will require a huge number of participants.
- random starting order with rotation
 - all possible orders.
 - ABBA counterbalancing
 - block randomization
 - Latin Square
17. Dr. Nguyen is conducting an experiment to exam how room temperature influences people's ability to perform a memory task (e.g., memorizing lists of words). There are two conditions (hot room, cold room) and a total of 40 participants. Each participant does the task in both conditions. 20 participants do the task for the first time when the room is hot, and then they do the task again when the room is cold. The other 20 participants do the task first when the room is cold, and then do it again when the room is hot. This example directly illustrates which of the following research procedures?
- a placebo control design
 - random assignment of participants
 - random sampling of participants
 - counterbalancing.

18. In a study examining gender differences in “creativity,” which outcome would be a Type II error? (Note: There are only 3 choices below.)
- in the population, females actually are better, but your study failed to find a gender difference
 - you reject the null hypothesis when in fact a true difference exists
 - in the population, no real difference occurs, but the males in your study performed significantly ($p < .05$) better than the females.
19. Dr. Crowe believes that traditional IQ tests underestimate young children's intelligence. She develops a new "visual" IQ test (all the questions involve pictures or drawings) that she claims is more accurate. For convenience, Dr. Crowe locates two nursery schools that are close by. School A is associated with the university where she teaches, and is located in an economically wealthy town. School B is located in a nearby, economically poor town. Random assignment is used to determine which nursery school gets which test. All the children at School A get the “new” IQ test, and all the children at School B get a “traditional” IQ test. Results indicate that the children who take the new visual test receive higher IQ scores than the children who take the traditional test. Dr. Crowe concludes that her new IQ test is more accurate. In this study the type of IQ test (i.e., visual or traditional) that the children were administered represents a(n):
- independent variable.
 - dependent variable.
 - an extraneous variable, but one which does not confound the results
 - an extraneous variable that confounds the results (i.e., a confounding variable)
20. In Dr. Crowe’s study (see Question #19 above), the economic status of the two towns represents a(n):
- independent variable.
 - dependent variable.
 - an extraneous variable, but one which does not confound the results
 - an extraneous variable that confounds the results (i.e., a confounding variable)
21. In Dr. Crowe’s study (see Question #19 above), the children's score on their IQ test represents a(n) _____ variable.
- independent
 - dependent
 - an extraneous variable, but one which does not confound the results
 - an extraneous variable that confounds the results (i.e., a confounding variable)
22. In a study that uses a yoked control group design:
- the exact sequence of events for each member of the control group is planned ahead of time.
 - participants in the experimental and control groups are always directly interacting with each other in some way.
 - what happens to a given member of the control group depends on what happens to a particular member of the experimental group.
 - participants in the control group try to outperform participants in the experimental group.

23. Dr. Van Kammen has 40 participants perform a visual reaction time task. Half of them are assigned to an Alone Condition (one at a time, each person performs the task alone) and half are assigned to an Audience Condition (one at a time, each person performs the task in front an audience). He hypothesizes (H_1) that, overall, reaction time in the Audience Condition will differ from the reaction time in the Alone Condition. In this experiment, the null hypothesis would be that reaction time in the Audience condition:
- will not differ from reaction time in the Alone Condition.
 - will be faster than reaction time in the Alone Condition.
 - will be slower than reaction time in the Alone Condition.
 - will differ from reaction time in the Alone condition, though we can't say in which direction.
24. In experiments that use a within-subjects design, which of the following statements best describes the problem of "carryover effects"?
- As participants proceed through the various conditions of the experiment, their performance steadily deteriorates due to physical or mental fatigue.
 - Something that happens to participants in one of the earlier conditions causes them to drop out of the study and therefore they never complete the latter conditions.
 - Participants' performance in one condition differs depending on the particular condition or sequence of conditions that precede it.
 - Participants guess the researcher's hypothesis and alter their behavior in an attempt to "help" the researcher confirm the hypothesis.
25. Dr. Truong examines whether a new drug will reduce schizophrenic symptoms. From a group of 40 schizophrenic patients, 20 are randomly assigned to receive the drug and 20 others receive a placebo pill. The participants take the pills for a month, and during this time the Drug Group shows an overall 28% decrease in the number of symptoms, whereas the Placebo Group shows an overall decrease of 21%. An analysis reveals that this difference between the two groups (28% versus 21%) is statistically significant. Therefore, Dr. Truong should _____ the null hypothesis and conclude that the difference in symptom reduction between the Drug and Placebo Groups _____.
- reject; most likely is due to chance
 - reject; most likely is NOT due to chance
 - fail to reject; most likely is due to chance
 - fail to reject; most likely is NOT due to chance
26. Continuing the example in Question #25 above, suppose that IN TRUTH (i.e., The Real "State of the World"), this new drug actually does NOT reduce schizophrenic symptoms. In this case, the decision/conclusion that Dr. Truong reached would represent a: (Note: There are only 3 choices below).
- Type I error.
 - Type II error.
 - correct decision.

27. Dr. Wilson studies people's color preferences. He conducts an experiment in which participants engage in 4 trials of a color judgment task. In each trial, participants are shown one of four colors -- Blue (B), Red (R), Green (G), and Yellow (Y) -- and then rate how much they like that color on a 7-point scale. The research design is shown below:

	Trial #			
	1	2	3	4
Participant 1	B	G	R	Y
Participant 2	G	Y	B	R
Participant 3	Y	R	G	B
Participant 4	R	B	Y	G

This design represents:

- random starting order with rotation.
 - block randomization.
 - Latin Square.
 - ABBA (reverse) counterbalancing
 - all possible orders
28. Suppose that Dr. Wilson had used the following design instead.

	Trial #			
	1	2	3	4
Participant 1	B	G	Y	R
Participant 2	G	Y	R	B
Participant 3	Y	R	B	G
Participant 4	R	B	G	Y

This design represents:

- random starting order with rotation.
 - block randomization.
 - Latin Square.
 - reverse counterbalancing
 - complete counterbalancing (all possible orders)
29. According to APA ethical guidelines, consent is obtained for participants/subjects who are _____ and assent is obtained for participants/subjects who are _____.
- humans; other species
 - other species; humans
 - adults; children
 - children; adults.
30. All of the following represent different types of between-subjects designs, EXCEPT:
- the matched groups design.
 - the all possible orders design
 - the yoked-control design
 - the placebo control design
 - the independent groups design

31. Dr. Shapiro conducts a study. She shows 100 male college students one photograph of a smiling Caucasian woman. The men are randomly assigned to one of four conditions, resulting in 25 participants per condition. Dr. Shapiro uses a computer to digitally alter the photograph, and in Condition 1 the photograph shows the woman's hair to be blonde. In Condition 2, her hair color is shown as black. In Condition 3, the hair color is brown. In Condition 4, the photo shows the woman to be a redhead. Each participant rates the woman's attractiveness on a 7-point scale ranging from -3 (Very Unattractive) to +3 (Very Attractive). This study represents:
- a true experiment using an independent groups design.
 - a true experiment using a matched groups design
 - a true experiment using a yoked control design
 - a true experiment using a placebo control design
 - a nonequivalent groups design, and therefore not a true experiment
32. In the study by Dr. Shapiro presented in Question #31, what is the independent variable?
- the rating of how attractive the woman is, using the -3 to +3 scale.
 - the sex of the participants (the fact that all the participants were men)
 - the hair color of the woman in the photographs
 - the ethnicity of the woman in the photo (the fact the photos always showed the face of the same Caucasian woman)
33. In the study by Dr. Shapiro presented in Question #31, all the participants were men. The fact that Dr. Shapiro did NOT include female participants as well as male participants:
- potentially decreases the internal validity of the study
 - potentially decreases the external validity of the study
 - potentially decreases both the internal and external validity of the study
 - has no relevance to either the internal or external validity of the study
34. Researchers randomly assigned participants to listen to (a) classical music or (b) no music before they learn a list of words. Researchers calculate the mean number of words participants recall. This step is an example of _____ statistics. The researchers also conduct the appropriate statistical tests to determine whether the difference between means for the two groups is statistically significant and to draw a general conclusions about whether listening to classical music affects immediate memory recall. This step is an example if _____ statistics.
- descriptive / descriptive
 - descriptive / inferential
 - inferential / inferential
 - inferential / descriptive

35. The power of a statistical test refers to the probability of:
- failing to reject the null hypothesis when in fact the null hypothesis is false.
 - failing to reject the null hypothesis when in fact the null hypothesis is true.
 - rejecting the null hypothesis when in fact the null hypothesis is false.
 - rejecting the null hypothesis when in fact the null hypothesis is true.
36. What are the APA ethical guidelines related to deception in research? (Note: There are only 3 choices below.)
- deception may be used without restriction but participants must be debriefed
 - deception can only be used in studies that are minimal risk
 - deception may be used only if equally effective alternative procedures are not feasible
37. When the results of an experiment are statistically analyzed, the "alpha level" (i.e., " α level" or " p level") represents the probability:
- of making a correct decision
 - of making a Type I error.
 - of making a Type II error.
 - none of the above.
38. Within-subjects designs usually _____ than between-subjects designs.
- are more efficient
 - require a greater number of subjects
 - are less sensitive
 - All of the above are true.
39. Dr. Martinez administers a psychological test that measures "self-esteem" to a sample of 300 children in first grade. She then gives these same 300 individuals the self-esteem test again when they are in grades 2, 3, and 4. After collecting the data, Dr. Martinez explores how self-esteem changed as the children grew older. This type of research represents a _____, and even though it is not an experiment, it essentially takes a _____ approach to examining behavior.
- cross-sectional study; between-subjects.
 - cross-sectional study; within-subjects.
 - longitudinal study; between-subjects.
 - longitudinal study; within-subjects.
40. Dr. Rosenberg administers a questionnaire to 400 students taking PSYCH 101. Based on this questionnaire, he identifies 20 students who are Musically Experienced (i.e., they have played a musical instrument regularly for at least ten years) and 20 students who are Musically Inexperienced (they have never played a musical instrument). Dr. Rosenberg then brings each of these 40 students to a laboratory, where each participant's reaction time at an auditory task is then recorded. Dr. Rosenberg finds that students in the Musically Experienced condition display faster reaction time at this task than students in the Musically Inexperienced condition. This study represents:
- a true experiment using an independent groups design.
 - a true experiment using a matched groups design
 - a true experiment using a yoked control design
 - a true experiment using a placebo control design
 - a nonequivalent groups design, and therefore not a true experiment