AP Psychology -- Chapter 02 Review
Research Methods in Psychology

1. In the opening vignette, to what was Alicia's condition linked?  
The death of her parents and only brother

2. What did Pennebaker’s study find?  
That college students were healthier if they wrote their deepest thoughts and feelings

3. What did Pennebaker’s study show?  
That keeping a journal is helpful because it allows the writer to think about their deepest emotions, feelings, and opinions.

4. What is a theory?  
A systematic way of organizing and explaining observations

5. What is a hypothesis?  
A tentative belief about the relationship between two or more variables

6. What is a variable?  
Any phenomenon that can differ, or vary, from one situation to another, from one person to another, or from one time to another

7. What are continuous variables?  
Variables that can be placed on a continuum, such as the degree of happiness or the amount of income

8. Male and female are what kind of variable?  
Categorical variable

9. To ensure that I have good results, how should I run an experiment?  
Have the same basic procedure so as to minimize unintended variations

10. Why do investigators typically conduct research?  
In order to better understand the behavior of the population

11. What is a sample?  
A subgroup of the population that is likely to be representative of the population as a whole

12. Should experiments involve a sample?  
Yes

13. If I use students at one university in order to learn about students at all universities, then
what is the student body at the university studied?
A sample

14. If I study some students at a university to learn about all of the students at that university, then what does the entire student body represent?
A population

15. Why does good psychological research use ‘standardized procedures?’
In order to expose participants in a study to as similar procedures as possible

16. What is generalizability?
The ability to infer something about a larger population from the behaviors of a subset of that population

17. What are some things that might threaten the internal validity of a study?
An unrepresentative sample, non-standardized procedures, and extraneous variables

18. How do you know if an experiment has internal validity?
If the methods of an experiment test the hypothesis

19. What does it mean if an experiment has external validity?
Its findings can be generalized from the laboratory to the real world

20. What is the experimenter’s dilemma?
The more tightly a researcher controls what participants experience, the less the situation may resemble life outside the laboratory

21. In order to ensure that the findings obtained with your sample can be applied to the population, your study should have what feature?
External validity

22. What would a study look like that is low in external validity?
The results don’t actually predict what people do in the real world

23. What is test-retest reliability?
A test that yields relatively similar scores for the same individual over time

24. How can you ensure test-retest reliability?
Give the same questionnaire to the same participants at three different points in time, getting essentially the same answers

25. What is interitem reliability?
Having a number of ways of asking for the same information

26. What is interrater reliability?
If two or more individuals agree on some dimension and give a participant the same score

27. When is validity present?
   **When the test measures what it is supposed to measure**

28. What is construct validity?
   **The extent to which a measure actually assesses what it is believed to measure**

29. What is criterion validity?
   **When a test or measure can differentiate among different groups with regard to behaviors**

30. What are the types of validity discussed in the book?
   **Face validity, construct validity, and criterion validity**

31. What is one of the best ways to obtain an accurate assessment of a variable?
   **By using multiple measures**

32. What type of research is used to simply describe behavior rather than to manipulate variables?
   **Descriptive research, or descriptive statistics**

33. What is a case study?
   **Researchers who study one person or maybe a small number of people in-depth**

34. If I do an in-depth study of Bill Gates and Donald Trump to learn about financial success, what type of research method am I using?
   **Case study**

35. What are some possible limitations of the case-study method?
   **Investigator bias, small sample size, and lack of generalizability**

36. What method was used by Jane Goodall in her studies of apes in Africa?
   **Naturalistic observation**

37. What is one of the problems in doing naturalistic observations?
   **The awareness of being watched may alter people's 'natural behavior'**

38. If my study involves asking those who happen to pass by to answer a series of questions, what type of research am I doing?
   **Survey**

39. What does good survey research involve?
   **Asking people questions, a large sample, and a random sample**
40. What is a major problem with survey methods?
   They rely on participants to report on themselves truthfully and accurately

41. What is a key issue with survey research and samples?
   The sample must accurately represent the population of interest

42. How are participants for a study typically selected?
   Randomly

43. What does a stratified sample reflect?
   The proportion drawn from each population category

44. If I go so far as to make sure that the proportion of each category of subjects (e.g., males and females) is the same as that found in the population, what technique have I used in selecting my participants?
   Stratified random sampling

45. What do descriptive statistics do?
   They summarize quantitative data in understandable form

46. What is the mean?
   The sum of all the scores is divided by the number of scores

47. What are some facts about the mean?
   It is the average of the scores; it is the most commonly reported measure of central tendency; it is the most intuitively descriptive statistic

48. What is the median?
   If I rank all the scores from lowest to highest (or highest to lowest), it is the middle score (the one in the middle of the list)

49. What is the mode?
   The most common or frequently occurring score

50. A teacher determines that the score of 78 occurs more often than any other score on the first exam. What is 78 then?
   The mode

51. If I have found out that the difference between the highest and lowest score on an exam is 72, then what does 72 represent?
   The range

52. What is a standard deviation?
   The amount the average participant deviates from the mean

53. The average on the first exam in my class is 79.5%, but the average student differs from
that score by 8.2%. What does 8.2 represent?

A standard deviation

54. What type of research allows the researcher to determine causality?

Experimental research

55. What is the independent variable?

The variable that is manipulated by the experimenter

56. I vary the distance of a sound-producing object and measure the ability of observers to accurately report the distance of the sound source. The distance of the sound source is what kind of variable?

The independent variable

57. What is the dependent variable?

The variable that is measured by the experimenter is the:

The dependent variable

58. I vary the distance of a sound-producing object and measure the ability of observers to accurately report the distance of the sound source. The accuracy of the participants' perceptions is what kind of variable?

The dependent variable

59. What are conditions of the variable?

The different levels or variations of the independent variable

60. In order to accurately determine the extent to which sleep influences grades, I randomly assign my subjects to one of four groups: 4, 6, 8, or 10 hours of sleep per night. What are the four different groups?

The conditions of the independent variable

61. What is the first step in conducting an experiment?

To frame your hypothesis

62. What does it mean to operationalize a variable?

To take something that is unobservable (e.g., intelligence) and find a way of making it observable and measurable by a set of actions

63. What is one way to operationalize depression?

To count how long an individual walks with their head angled down towards the ground as well as the number of times the person talks when in a social setting.

64. I think that playing music during an exam will help students to relax. My thinking is that, if they are more relaxed, then they will perform better. One class gets to listen to rap, another to classical, another to country western, another to easy listening. I should have one more group. What group am I missing?
A control group which does not listen to music

65. What does a control group provide?
   A basis for comparison for the performance of the experimental group

66. In my experiment, there are several indicators that I am interested in how much eating chocolate helps people study for exams. What are these cues in the experimental situation that reveal the purpose of the experiment known as?
   Demand characteristics

67. What happens in a single-blind experiment?
   The participants are kept unaware of crucial information, such as the group to which they are assigned

68. In a double-blind study who is prevented from knowing crucial information?
   The subjects and the researchers

69. How can bias in an experiment be reduced?
   Conduct a single-blind study; minimize the demand characteristics in the experiment; conduct a double-blind study

70. What is a confounding variable?
   Any variable, other than the independent variable, that may be influencing the dependent variable in a systematic way

71. An experiment compares student GPAs between those who eat breakfast and those who don't. After the experiment, it is found that those who eat breakfast in the cafeteria are also listening to music. Not only do the two groups differ in terms of who has breakfast, but they also differ in terms of who hears the music. What does music represent in this experiment?
   A possible confounding variable

72. If I perform some statistics on the data that I have gathered, and those statistics merely summarize the findings, what type of statistics are being used?
   Descriptive statistics

73. When should you use inferential statistics?
   When you want to know if the independent variable affected the dependent variable

74. What are some weaknesses of experimental research?
   Results may not generalize outside the lab; complex phenomena may not be easily controlled in a lab setting; researcher bias may limit appropriate conclusions that can be drawn from the data

75. What is a major weakness of a quasi-experimental design?
   A lack of random assignment
76. If I am not in total control of assigning subjects to control and experimental groups, what kind of research method am I using?  
**It is quasi-experimental research**

77. What is p-value?  
The probability that the findings I obtained at the end of my experiment are due to chance

78. If you decide to run the exact same experiment all over again to see if you get the same findings that I did, what are you doing?  
**You are conducting a replication**

79. It is determined that the more hours that students socialize, the lower their grade. What kind of research is this?  
**Correlational**

80. What does correlational research measure?  
The extent to which knowing the value of one variable will allow the prediction of the other variable

81. How does a positive co-relationship look in terms of data points?  
The distribution of data points will move from lower left to upper right

82. What does a negative correlation between two variables suggest?  
**That a subject scored high on one variable and low on another**

83. What does a zero correlation suggest?  
**That performance on one variable does not allow one to predict performance on another variable**

84. I find out that there is absolutely no linear relationship between the size of one's head and that person's IQ. What do I have?  
**Zero correlation**

85. From where can correlation coefficients vary?  
**From -1 to +1**

86. What is a strong negative correlation coefficient?  
**-0.99**

87. If the data form an inverted (upside down) U on a scatterplot, what kind of correlation should I see?  
**A zero correlation because it is a curvilinear relationship**

88. True or False: Correlation implies causation.
False. Correlation does not imply causation.

89. What does it mean to have a strong correlational coefficient?
   Knowing one variable will allow you to confidently predict the other variable

90. If there is a +.59 correlation between shoe size and intelligence, what can I correctly conclude?
   Shoe size and intelligence are related but I cannot make a conclusion about cause and effect.

91. Who conducted a series of now classic studies on obedience to authority?
   Stanley Milgram

92. What is true regarding the ethics of Milgram's studies?
   Individuals who were told that compliance was high were more likely to judge the study unethical than were individuals who were told compliance was low.

93. According to the authors, when critically analyzing a study, why is it important to evaluate the sample of the study?
   To determine if the sample adequately represents the population from which it is drawn

94. When evaluating a study critically, your authors state that there are seven questions that should be considered. Is ‘Was the study expensive?’ one of them?
   Look it up.

95. What is informed consent?
   Before an experiment begins, the participant must agree to participate in the study

96. What is a confederate?
   A person who pretends to be a subject in an experiment but is actually an accomplice of the experimenters

97. What is an example of a confederate?
   You decide to run an experiment where a person pretends to be a subject and at one point refuses to participate in the experiment anymore. You want to see how others react.

98. What conditions must be met in order for deception to be used in an experiment?
   The research is important and cannot be conducted without deception; participants can withdraw from the experiment at any time; experimenters debrief the participants afterwards

99. When it comes to the ethics of animal research, what are some issues?
   Whether animals have rights; to what extent humans can use other creatures to solve human problems; that animals cannot give informed consent
100. What does it mean to debrief a subject?
You explain the purpose of the study and remove any stressful after effects after the participant is finished.