Review Exercise 7

Chapter 8   1 point extra credit

1.   Describe when it is appropriate to use the matched pairs (or repeated measures) t-test.

2.   Describe what is contained in the sampling distribution for the matched pairs (or repeated measures) t-test.

3.   Describe when it is appropriate to use the (independent) two-sample t-test.

4.   Describe what is contained in the sampling distribution for the(independent) two-sample t-test.

5.   Suppose a rehabilitation psychologist has developed a new job skills training program for people who have not been able to hold a job. Of the 14 people who agree to be in the study, the researcher randomly picks seven of these volunteers to be in a experimental group who will go through the special training program. The other seven volunteers are put in a control group who will go through an ordinary job skills training program. After finishing the training program (of whichever type), all 14 are placed in similar jobs. A month later, each volunteer's employer is asked to rate how well the new employee is doing using a 9-point scale where a score of 1 indicates "very poor" and 9 indicates "Excellent." The following ratings for the 14 employees are given below.

New Training Program: 6   4   9   7   7   3   6

Ordinary Training Program: 6   1   5   3   1   1   4

A. Identify the independent variable and its levels; also identify the dependent variable and its measurement scale.
B. State the null hypothesis for the study described.
C. Use Excel to conduct the appropriate statistical test for the study described (*p*=.05). Be sure to properly state your statistical conclusion regarding the null hypothesis.
D. Provide an interpretation of your answer in part C.
E. What type of statistical error might you have made in part C?