Do students at various universities differ in how sociable they are? Twenty-five students were randomly selected from each of three universities in a region and were asked to report on the amount of time they spent socializing each day with other students. The result for University X was a mean of 5 hours and an estimated population variance of 2 hours; for University Y, *M* = 4, S2 = 1.5; and for University Z, *M* = 6, S2 = 2.5. Using the 5 steps of hypothesis testing listed below, what should you conclude? (Refer to page 319 in the text for steps to complete this problem).

Step 1 (Restate the Question as a research hypothesis and null hypothesis about the populations) (**.4pts)**

Population 1:

Population 2:

Population 3:

Research Hypothesis (.**2pts**):

Null Hypothesis (.**2pts**):

Step 2 (Determine the characteristics of the comparison distribution) (**.5pts)**

df between (.**4pts**):

What distribution? (.**1pt**):

Step 3 (Using the .05 level, determine the cutoff sample score on the comparison distribution at which the null hypothesis should be rejected) (**.4pts)**

Probability (.**1pt**):

Degrees of freedom (.**2pts**):

Cutoff score (.**1pt**):

Step 4 (Determine your sample’s score on the comparison distribution) (**.5pts)**

Between groups population variance estimate (.**15pt**):

Within groups population variance estimate (.**15pt**):

F (.**2pts**):

Step 5 (Decide whether to reject the null hypothesis) (**.2pts)**

1. Figure the effect size for the study (**.2pts)**