Excel Take Home Assignment
Discussing a Correlation: Common Mistakes to Avoid

In your Excel Take Home Assignment you are asked to describe a correlation in two sentences. In the first sentence you'll report the strength and direction of the correlation between the two variables, and in the second sentence you are asked to describe what the correlation means. Please read the advice below to avoid making mistakes that will result in point deductions.

1. Negative correlations are not "bad." The statement, “Although the correlation was negative, it was still strong” implies that a negative correlation is not as desirable as a positive correlation: \( r = -0.54 \), for example, is just as strong and important and desirable as \( r = +0.54 \). The proper way to report a negative correlation is the same as for reporting a positive correlation, such as "a moderate positive correlation between.....was found"; "a moderate negative correlation between....was found".

2. Avoid phrases that imply causation. For example, suppose that children's self-esteem and number of friendships are positively correlated. When you describe what this correlation means, it is incorrect to say that “the correlation indicates that children with higher self esteem will develop more friendships” or "the correlation shows that having friends increases children's self-esteem." Such statements improperly imply a causal effect.

3. When describing what a correlation means, describe the relation in terms of “On average...”, "Overall..." or "there is a tendency toward ...." Do NOT describe it in terms of an individual. For example:

   “The correlation indicates that a child with high self esteem will have more friends” is not correct. Rather, say one of the following:

   “Children with higher self-esteem tend to have more friends”;
   “Overall, children with more friends have higher self-esteem.”
   “On average, higher self esteem is associated with having more friendships.”

FINAL COMMENT
You may have noticed in the correlational articles that you have already read/are reading for Homework 1 and Homework 2, that when authors discuss their findings, sometimes they do talk about correlational results as if these results implied cause and effect. In general this should be avoided unless such discussion is clearly labeled as speculation, or unless the authors qualify their statements with phrases such as "this may suggest that," "it may be that," "one possibility is that...", and so forth. In your class project paper, as long as you properly qualify your statements, you'll be able to speculate about cause and from correlation findings if you wish. **But, for this Excel Assignment, your one sentence that explains the meaning of the correlation you obtain should avoid any mention or speculation about cause and effect.**