What is correlational research?

What is Correlational Research? The correlation research method is appropriate when researchers want to study and " assess relationships among naturally occurring variables. " Assessment means making predictions about the nature of the relationships being studied. It also means describing the relations and assigning them a " correlation coefficient" that describes the direction and magnitude of the movement of variables to one another. There are many types of correlational research.   The commonality among all types of correlational research is that they explore relationships between variables.   Where descriptive research only described what was going on, correlational research talks about the link between different things. It is important to understand that correlational research does NOT tell us that Variable A caused Variable B, but rather that they are somehow related. For example, if I told you that there was a correlation between domestic violence (violence between family members) and bowling, you would look at me strangely.   But there is a relationship between the variables (variable 1-domestic violence, and variable 2- bowling).   As more people bowl in the US, more domestic violence occurs.   [pic]   [pic] Does that mean that bowling causes domestic violence- like you had bad game and take it out on a loved one?   Or domestic violence causes bowling- like you fight with a sibling and feel the need to take it out on some pins?   As you have already guessed- one does not cause the other to occur, but they are related- for every time people bowl, I can predict that domestic violence will go up, and every time domestic violence goes down I should be able to find a lane at the local bowling alley.   There is a hidden variable that links both of them together. In this case it is winter time.   In the winter more people bowl and more people stay in their homes (which increases the chances of domestic

violence). Direction of a Correlation [pic]   [pic] Before we examine the different types of correlational research methods, understand that correlations can go in two directions: positive and negative.   - Positive Correlation: when two variables go in the SAME direction.   For example, domestic violence and bowling.   When bowling goes up, so does domestic violence.   When domestic violence decreases, so does bowling. -Negative Correlation: A relationship between two variables in which one variable increases as the other decreases, and vice versa. Here are a few examples of a negative correlation: The more time I spend at the mall, the less money I have in my checking account. The higher my mutual fund's expense ratio, the lower my investment returns. The more hours I spend at the office, the less time I spend with my family. -No Correlation or Zero Correlation: If there is no relationship between the two variables such that the value of one variable change and the other variable remain constant is called no or zero correlation. Correlational Research " Correlation is a statistical technique that can show whether and how strongly pairs of variables are related" (Creative Research Systems, 2010). Correlation research method is used in scientific research to study the association and/or relationship between variables. When the association between two variables becomes correlation coefficient, it is being calculated through quantitative measure. The goal for using this method is to observe if one or more variables cause and predict other variables, without having a causal relationship between them (Creative Research Systems, 2010).   One great article I found is about money and happiness: " Can Money Buy Happiness: Are Lottery Winners any Happier in The Long Run? " At first people see how happy and ecstatic people that win the lottery are on television, however, past that point, there are no details on

how their life is from there on. The question of whether they are happier or not still remains. The researchers developed the study by asking two paralyzed accident victims, a control group and lottery winners about their level of happiness. " There was no statistically significant difference between the lottery winners and the control group with respect to how happy they were at this stage of their lives" (Brikman, 1978). The control group as well as the lottery winners did not give any " evidence" of how happy they are going to be in couple of years (statistically insignificant). The lottery winners did not think, judge or be concerned about how happy they will be in few years, as the accident victims did. The results were that the relationship between money and the level of happiness is not linear. The increase of money might or might not increase your happiness (depends on the events). " These findings may also suggest that happiness may be relative.   We may not be able to reach a higher level of happiness as a result of winning the lottery.   Winning the lottery may simply raise our... [continues] Discussion Board - Correlational Research In this discussion, I will attempt to briefly describe correlational research, select a variable from the study used in this course and from the workplace that might prove to provide a correlational relationship explain why I would choose these two. Lastly, I will attempt explain how these results of the survey will be used in the workplace. Correlational research is a measure of two more variables. This type of research calculates the degree of systematic covariation among measurements (Scmidt). If the values and one thing change, then what happens to the other? This is usually for the same situation. An example would be: If you were to have 22 people in a room of different heights from the shortest person to the tallest person, what would be the size of each

individual's pants? They would get bigger or in other words, co-vary together. As you go from one of value to another, what happens to the other? A variable that I chose from the study in this course is gender and the other variable I have chosen for a work environment is sexual-harassment. The correlation between the two this was most likely to be a victim of sexual harassment in the workplace between males and females. I chose these two variables because it seems as though sexual-harassment within the workplace is showing up in the media a lot more lately. Victims of this crime are becoming more outspoken than before and it is a subject that people need to educate themselves on. A way that the results of this type of survey would be useful in the workplace is that it will allow employees to be aware of the consequences that can happen when they sexually harass individual at work. The results of this survey can also enable a Corporation to better protect their employees from becoming a victim of this un-chivalrous crime and how they can provide any type of counseling that is needed for these victims. The results of this kind of survey can also victims of sexual harassment to not be afraid, whether they... Correlational research designs are used for two major purposes: (1) to explore casual relationship between variables and (2) to predict scores on one variable from research participants' scores on other variables. From http://wiki. answers. com/Q/What_are_the_advantages_of_correlation_research Correlational Research Making sense of observations I.   Nature of Correlational Studies II.   Interpreting Correlational Data III.   Correlation and Causation IV.   Improving Correlational Studies V.   Conclusions I.   Nature of Correlational Studies A.   Another tool for the researcher 1) as a first step prior to experimentation 2) when experiments cannot be conducted (for ethical or practical reasons) B.

Types of correlational studies 1) Observational Research e. g., class attendance and grades 2) Survey Research e. g., living together and divorce rates 3) Archival Research e. g., violence and economics C.   What a correlation measures: It is a measure of the association, or co-variation of two or more dependent variables. Example: Why are children aggressive? Hypothesis: aggression is a learned behavior as a result of modeling.   Test: look for associations between aggressive behavior and . . . II.   Interpreting Correlations A.   r scores range from -1 to +1 r= -1, perfect negative relation example of a negative r: drinking in college and GPA r= 0, no relation example of a near zero r: hair length and GPA r= +1, perfect positive relation example of a positive r: GPA and scores on SAT B.   r2 = percent of variation accounted for by the relation between x and y Example: correlation between SAT and college GPA r = . 6, r2 = . 36 thus 36% percent accuracy in predicting GPA from SAT. III.   Correlation and Causation A. Correlation as a first step in determining causation. If there is no association between two variables, then there is no causal connection.   B.   Correlation does not prove causation 1) directionality problem: X   <--->   Y 2) third variable problem: Z   /

v   v   X   <---->   Y C.   Examples: 1) smoking and violent crime (Brennan, 1999) Women surveyed during the final trimester of pregnancy about smoking.   correlated with Arrest records of their sons 34 years later. N= 4, 169 Controlled for: socioeconomic status parental psychiatric problems age fatherÃs criminal history Conclusion: Ã¬maternal smoking during pregnancy is related to increased rates of crime in adult offspring. Ã® Evaluation: 1) Is there a directionality problem? 2) Is there a possible third variable problem? 2) Meese Commission and

pornography: Ã¬The objectives of the Commission are to determine the nature, extent, and impact on society of pornography in the United States. Ã® (Department of Justice, 1985) Correlated trends in violent crime and trends in the publication of pornographic material. Conclusion: Ã¬This (upward) trend in the content of pornographic material is consistent with the Bureau of JusticeÃs recent study, showing an increase in crime and violence generally in North America. Ã® Evaluation: 1) Is there a directionality problem? 2) Is there a possible third variable problem? Incidence of violent crime will positively correlate with anything that increased during the same period of time.   Example: Correlation between the incidence of rape and membership in the Southern Baptist church was +. 96 during the same time period (Mould, 1990). IV.   Improving Correlational Studies A.   Cross-lagged-panel correlation 1) As a means to untangle the directionality problem in correlational research 2) Take two sets of correlations separated by a time interval Example: T. V. violence and Aggressive behavior Eron, Huesman, Lefkowitz & Walder (1972). B. Partial Correlation Remove (partial out) the influence of a potential third variable. C.   Multiple Correlation Estimate the relation between variables, taking into account several additional (third) variables. Example: estimate the gain in weight due to quitting smoking (Williamson et al., 1991 N. E. J. M.) taking into account: age, race, level of education, duration of follow-up, changes in physical activity, and reproductive history Simple linear correlation: $y = mx + b$ (equation for a line). Multiple correlation: $y = m_1x_1 + m_2x_2 + m_3x_3 + . . .$ Where: m_1 = influence of age m_2 = influence of race   etc. mean wt. gain attributable to smoking: 3. 8 kg (8. 4 lbs.) V.   Conclusions A.   Correlational studies as a means of looking for relations between variables

when experiments cannot be done B.   How to interpret correlation C.   Never infer causation D.   How to come closer to making causal inferences (partial and multiple r). Citations: (2012, 01). Correlational Research. StudyMode. com. Retrieved 01, 2012, from http://www. studymode. com/essays/Correlational-Research-889635. html (2012, 11). Correlational Research. StudyMode. com. Retrieved 11, 2012, from http://www. studymode. com/essays/Correlational-Research-1244453. html (2010, 10). Research Method. StudyMode. com. Retrieved 10, 2010, from http://www. studymode. com/essays/Research-Method-454211. html