Remember,
A Dependent Variable (DV) is something you measure (typically appears on the “Y” axis of your graph)
An Independent Variable (IV) is something you manipulate or use to group subjects (appears on the “X” axis of your graph)
A ‘numeric’ variable here refers to an interval or ratio type of data: Salary, Rating of 1-5, GPA, Heights, Number of cookies sold
A ‘categorical’ variable here refers to nominal data: Male or Female, Type of management style, Level of experience

Study Type 1 & 2: Correlation and Regression
Describe relationship
(e.g. Correlation between heights of mothers and heights of their daughters)
How is Variable 1 operationally defined (also draw max and min scores)?
How is Variable 2 operationally defined (also draw max and min scores)?
Describe direction and strength of correlation (e.g. strong positive)
Create a graph consistent with your study (label both axes and draw dots)
Can this be used to establish causal relationship?
Remember, cause-and-effect relationships can only be established with "true" experiments

Choose a value on your IV and predict a value for your DV (draw arrows)

Study Type 3: t-test
Describe comparison
(e.g. Effect of sleeping pill on number of hours slept)
How is I.V. operationally defined?
How is D.V. operationally defined?
Is this a between or within participant design? Why?
(Note: this will help to determine which type of t-test you would perform)
Describe which mean you expect to be greater
Create a graph consistent with your study (label both axes and draw 2 bars)
Can this be used to establish causal relationship?
Remember, cause-and-effect relationships can only be established with “true” experiments
Study Type 4: One-way ANOVA
Describe comparison _____________________________________________________________
(e.g. Effect of management style on happiness of employees)
How is I.V. operationally defined? _____________________________________________
(Including three levels of IV – e.g. comparing 3 management styles)
How is D.V. operationally defined? _____________________________________________
Describe which mean would be highest, middle or lowest (why?) ______________________
Create a graph consistent with your study (label both axes and draw 3 dots with lines connecting the 3 means)
Can this be used to establish causal relationship? _________________________________
Remember, cause-and-effect relationships can only be established with “true” experiments
What can this type of analysis be used for? _______________________________________
(e.g. Define when would you use a one-way ANOVA design/analysis?)

Study Type 5: Two-way ANOVA
Describe comparison _____________________________________________________________
(e.g. Effect of sleeping pill and gender on number of hours slept)
How is first I.V. operationally defined? ___________________________________________
How is second I.V. operationally defined? _________________________________________
How is D.V. operationally defined? _____________________________________________
Create a graph consistent with your study (label both axes and draw 2 lines)

Study Type 6: Confidence interval
Describe an example of when you might want to construct a confidence interval
____________________________________________________________________________
How is your variable operationally defined? _______________________________________
What can this type of analysis be used for? _______________________________________
(e.g. Define when would you use a confidence interval?)

Study Type 7: Chi-Squared will be described on later assignments