*Review the Data Collection Sheets below and select the one that best fits your research question and variables.*



**Prevalence Example**: Is there a difference among gender and math scores?

* Variables
	+ Independent Variable is categorical
	+ Dependent Variable is numeric
* Project that has summation to get a total score.
* After you score each ‘test/survey,’ enter your total scores for each participant.
* Run an unpaired t-test because there are two different groups.

**Intervention Example**: Is there a difference in stress scores after the intervention?

* Variables
	+ Independent Variable is categorical
	+ Dependent Variable is numeric
* Test/Survey will need to have a ‘code’ to match pre and post to the same participant.
* After you score each ‘test/score,’ enter your total scores for each participant. Surveys will have a coding system, replacing words with numbers (categorical coding).
* Run a paired t-test because the same people took the pretest/survey as the posttest/survey.

**Example: Project has Yes or No**.

* Variables
	+ Independent Variable is categorical
	+ Dependent Variable is categorical
* Make sure to enter the question or summarize the question. Then enter Yes or No in blank boxes.
* Research Question: Difference among grade levels and if they are present at an event?
* You would run a chi square.

|  |  |  |
| --- | --- | --- |
| Participant Number/Code | Grade Level (9/10/11/12) | Present at Event (Yes/No) |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |

|  |  |  |
| --- | --- | --- |
|  | Present Event Yes | Present Event No |
| 9th Grade |  |  |
| 10th Grade |  |  |
| 11th Grade |  |  |
| 12th Grade |  |  |

**Example: Project that has three groups**.

* Variables
	+ Independent Variable is categorical
	+ Dependent Variable is numeric
* Make sure to label your columns to match what you are collecting.
* Research Question: Is there a difference among age groups and weight?
* You would run an ANOVA because you have three groups to compare.

|  |  |  |
| --- | --- | --- |
| Record | Rainfall | Temperature |
| 1 |   |   |
| 2 |   |   |
| 3 |   |   |
| 4 |   |   |
| 5 |   |   |
| 6 |   |   |
| 7 |   |   |
| 8 |   |   |
| 9 |   |   |
| 10 |   |   |

**Project where you are looking for how much one variable tends to change when the other changes, collecting both the independent and dependent variable.**

* Variables
	+ Independent Variable is numeric
	+ Dependent Variable is numeric
* Make sure to label your columns. Column Rainfall and Temperature will be collected at the same time and then repeated.
* Procedures will need to explain how and when records were collected.
* Research Question: Does rainfall relate to temperature?
* You would run a correlation.

Example: **Non-human study, collecting data over time.**

* Variables
	+ Independent Variable is categorical
	+ Dependent Variable is numeric
* Make sure to set up your data sheet to collect data over time and record data for each group.
* Research Question: Does plant height differ among fertilizer?
* You would run an ANOVA.