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| **Important Parts of a Conclusion** | **How to Write the Different Parts** |
| **HYPOTHESIS**Refers back to the prediction/hypothesis | “The hypothesis proposed that **if … then … because…”** |
| **REFLECTION**Reflects on hypothesis after data collection | “The data supports the hypothesis…”**OR**“The data fail to support the hypothesis…” |
| **SUMMARY OF DATA**Describe specific data gathered in the experiment* This **SHOULD** include:
	+ Trends in the data
		- rate(s)
		- mean/median/mode
		- chi-squared results
		- standard error of the mean
		- 95% confidence interval
* This **SHOULD NOT** include:
	+ A list of all the data
	+ A copy of your data table
 | “The data show/reveal that…”“The difference between the groups is…”“The slope of the line (decreases/increases) by (how much)….”“The difference between the average/mean is…”“The chi-squared value of \_\_\_\_ is greater than the critical value of\_\_\_\_”“There is/is no overlap in the 95% CI bars…” |
| **EXPLANATION OF DATA** Use scientific content to explain the “**WHY**” behind your data * This is where you show me that you understand how this lab connects to what we are learning about!
 | “The results of the experiment show that…”“The reason \_\_\_\_\_ is observed is…”“The data/results are supported by…..(discussion of specific scientific knowledge/concepts)” |
| **ERROR ANALYSIS*** Identify at least **ONE** major source of error that could have impacted your results **AND** explain how the source of error may have altered your data.
* List at least **ONE** improvement to the experimental design that would correct for the source of error listed above.
* **PREDICT** how this improvement might alter future data.
 | “One potential source of error is…which has impacted the data by…”“The procedure could be improved by….”“This could change the collected data by….” |
| **FUTURE RESEARCH**This should be related to the current experiment and should seek to extend the scope of the study. | “Future research might include….”“In order to better understand….”“The scope of this study could be extended by…..” |

AVOID ALL USE OF PERSONAL PRONOUNS!