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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!