

Lab Report Sentence Starters/Formatting Guidelines

These are **ideas and guidelines** for formatting your lab report, and some ideas on how to start sentences in each section. **These won't always apply to every lab situation**, use your best judgment when writing your report. All statements must be written in complete sentences unless otherwise noted.

Title: *Does Eating Sushi improve SAT scores?*

Purpose: *The purpose of this experiment is to determine the effect eating Sushi has on Math SAT scores among teenagers.*

Hypothesis: BE SPECIFIC!

I believe that eating 200g of sushi one hour before taking an SAT will cause a slight increase in scores (20-50 pts). I believe that if sushi consumption is doubled, score increases will double (ie. A linear relationship between sushi consumption and Math SAT scores). I believe this to be the case because sushi is high in Omega-3 fatty acids that have been shown to improve brain function.

Materials/Procedure:

- 1) List all necessary materials in numbered list
- 2) List steps in procedure in numbered list
- 3) Don't need complete sentences here

Data: In a table! Include for each variable: Name, Letter, Unit... *for example:*

	Type of fish - T	Mass Eaten - M (g)	Time between eating and test - t (min)	Total questions - Nt (pts)	Number Correct - Nc (pts)	% correct - Nc/Nt = C
Trial 1						
Trial 2						
Trial 3						
average						

Analysis

Give descriptive title to each calculation or graph

Do all calculations neatly. Do one calculation step by step to illustrate procedure, then list results of all the rest.

Graphs should fill AT LEAST a half-page, preferably a whole page, axes should be properly labeled with title, units, and proper scale.

Conclusions:

Graph A ("sushi consumption vs Math SAT scores") shows a linear best-fit line with a positive slope. This means that sushi consumption has positive direct relationship to SAT scores (i.e. if you double the amount of sushi consumed, SAT score improvement doubles as well). However, we only have data for small amounts consumed, so the effect of large amounts of sushi is only hypothesized and would need further study to see if the pattern holds in that region.

*The equation that describes the best-fit line on Graph A is: $C (\%) = .03 (\%/gram) * M (g) + 627$. This means that sushi has positive linear relationship to SAT scores. The slope indicates that for every gram of fish consumed, the percentage correct increases by .03%. The vertical-intercept indicates that an average student who consumed no sushi had a score of 627.*

Analysis of my data supports/refutes my hypothesis because _____.

Error Analysis:

Some possible sources of error in this experiment included variability of student's math background and lack of sleep.

Error due to variability in subject's math background was random. We tried to control this variable as much as possible by having a large sample size and selecting students randomly. Our large sample size (N=165) most likely limited the effects this variability had on the final results.

Error due to the fact that all the test subjects were really tired from partying at Mr. Morgan's house the night before the test was systematic because it likely skewed all the SAT test scores to be lower than they normally would have been. The effect of sleep deprivation on performance can be significant, so this error likely had large effects on

overall scores. However, since all subjects (both sushi eaters and non-eaters) were equally effected, it is possible that the conclusions we drew regarding the effects of sushi consumption are still valid.