

Template for Extra Credit Project Statistics 300

Describe the problem from a statistical perspective:

(1/2 page; typewritten in single-spaced 12 point font; well-crafted English paragraphs)

This should address the following:

- The topic of interest
- Task: gather data relevant to the topic, that can help answer the question(s)
- Task: analyze the data with respect to the topic
- Task: communicate results of the analysis to others

Describe the statistics and methods used:

(1/2 page; typewritten in single-spaced 12 point font; well-crafted English paragraphs)

This should address the following in so far as the paper you are looking at talked about them:

- How were the data gathered?
 - What type of sampling?
 - Sample size
- How were the data analyzed?
 - Means? Proportions? Standard deviations? Percentiles?
 - Hypothesis tests?
 - Confidence intervals?
 - Correlations? Regression?
- How were the results presented / communicated?
 - Graphs? Bar charts? Scatter plots? Box plots?
 - Tables?

Evaluate the effectiveness of the statistics and methods used:

(1/2 page; typewritten in single-spaced 12 point font; well-crafted English paragraphs)

- For each of the things noted in the previous section, evaluate how well they worked?
- Was the sampling well designed with a big enough sample size?
- Were the statistics and methods used appropriate and effective in making sense of the data?
- Were the methods used to present / communicate effective in that the reader could follow and understand the meaning of the data?

Recommend additional or improved analyses:

(1/2 page; typewritten in single-spaced 12 point font; well-crafted English paragraphs)

- For any deficiencies noted in the previous section, what do you recommend?
- Different sampling approach? Stratified or simple random sampling not convenience sampling?
- Bigger sample size?
- Different statistics?
- Confidence intervals added?
- Graphs or tables to help communicate?