

Performance Task - Data Management Investigation

Overview:

This is a probability and statistics research project. You will choose an appropriate topic and pose a significant problem of interest. You will collect data using a variety of methods (e.g. Internet research, database research (E-Stat), surveys, etc.). You will be expected to analyze the data using one variable statistics, two variable statistics and probabilities.

Quick Checklist:

Topic: Relevant, interesting and appropriate topic

Problem(s) Posed: One or more relevant and interesting problem is posed relating to the topic

Hypothesis: State what you are expecting to find (e.g. what trends or results are you anticipating you will check this hypothesis with the analysis)

Background Information: Find all relevant background information to include in your report.

Introduction: Introduce the topic, the problems and the techniques you are using to solve your problem.

Data Collection (Surveys & Other): Use the internet, E-Stat or other databases to find information, use surveys to get opinions or other data related to your topic.

Types of Analysis:

Probability

include probability calculations; Venn diagrams, etc.

1 Variable

Histograms, measures of central tendency, IQR and StdDev, Normal distributions, probability calculations, limitations

2 Variable

Scatter plots with linear regression performed, classify strengths and trends, comment on reliability, state independent and dependent variables, analyze cause-and-effect, outliers, etc.

Charts: Various charts and graphs, captions and full descriptions and discussions of the observations from the charts

Predictions and Sample Calculations (from the models): Use your models to make future predictions on trends. Make probability calculations based on your data.

Limitations: State all limitations of your analyses

Future Work: What would you do if you had more time? What would be the next steps? What are other problems that were raised that would be interesting to follow up on?

Conclusions: Did your work support your hypothesis and solve your problem? Discuss why or why not.

References: Site all references used.