

Grades 10 - 12

1st place tie

"Examining the Accuracy of the Windows XP Installation Time Prediction and How to Improve It" by Samuel L. Carson at Scripps Ranch High School, San Diego, CA

The strength of this project is the clearly stated hypothesis and the excellent design of the experiment. The student elegantly changed three variables to see how these would affect installation time and executed ten replications of each of these combinations. The project would have been better if the assumptions for the one sample t tests had been checked and if full disclosure of the type of help received was given with the project. Although help was acknowledged in general, specific information about the amount and type of help would have been more appropriate.

"The Wikipedia Game Experiment" by Matthew Adelman, Daniel Hemmendinger, Brian Stellingwerf at West Morris Mendham High School, Medham, NJ

The students developed an interesting question, designed a study to test that question and conducted sound statistical analysis to test that question. The strength of this paper is the clear explanation of the statistical analysis. The students also do an excellent job discussing ideas for future research and improvements for their study. The project would have been better if they had provided a scale for the boxplots and by putting both boxplots on the same scale in a side by side boxplot. A discussion of the shape of the boxplots and how this affected the analysis would have also improved the project.

2nd place "The Association among Etiquette and Gender" by Laura K. Neiditch at Oakton High School at Vienna, VA

Comments

The student did an excellent job posing an interesting question about how people communicate. Although written informally, she did a good job explaining how the data was collected and noted problems that she had in the data collection process. She conducted a solid analysis of the data including checking the assumptions. The project would have been better if she had recorded responses when there was a male and a female at the cash register and if she had been able to get a sample of more responses from more men.

3rd place "Is it Double the Stuff?" by Olivia Lewis at Salem Academy at Winston- Salem, NC

This student did a nice job of stating the hypothesis, collecting the data and discussing types of measurement errors that might occur. The statistical analysis is appropriate and the definition of the p-value is well stated. The paper would have been better if the student had organized the graphs in a different manner so that it would have been easier to compare the groups. For instance, the two histograms should have been next to each other. Additionally, it would have been better to have done side-by-side boxplots.