Methods section rubric - lab report example

Science, Biology



Methods Section Rubric

The Absorbency of Paper Towels Partners' s TA's Biology Lab Report 30
September Materials and Methods The experiment sought to determine the absorbance of two types of paper towels namely premium paper towel and premium recycled paper towel. It was hypothesized that the cloth-like texture of the premium paper towel would lead to better absorbance than the recycled paper towels. The independent variable was the type of paper towel while the dependent variable was mass of water absorbed. Twelve dry pieces of both brands of paper towel were taken out, weighed using a measuring scale, and their weight was recorded. The paper towels were put on trays and made wet by adding drops of water from a beaker with the aid of a dropper. The water was added until the towels became saturated and could no longer hold additional water.

The weight of the saturated paper towels was also weighed and recorded. The weight of water held by the paper towels was determined by getting the difference between the weight of the wet and dry paper towels (Baxter, Shavelson, Goldman, and Pine4). This difference in weight was recorded for each type of paper towel. The procedure was repeated eight times for each type of paper towel to obtain nine replicates. The results were recorded in a table. A fully saturated paper towel of each type was used as positive control for each replicate to determine a standard level of saturation before taking weight measurements.

Data Analysis and Hypothesis Testing

The hypothesis was tested by getting the average and total amount of water held by each type of paper towel. The final results (average and totals) were then compared for the two types of paper towels. The type of paper towel that held the highest amount of water was regarded the most absorbent towel.

Work Cited

Baxter, Gail P., Richard J. Shavelson, Susan R. Goldman, and Jerry Pine. "
Evaluation of Procedure-Based Scoring for Hands-On Science Assessment."
Journal of Educational Measurement 29. 1 (1992): 1-17. Print.