

What is the process of analyzing data?

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The process of analyzing data involves systematically examining and interpreting information to gain insights and draw conclusions. This typically involves collecting and organizing data, identifying patterns and trends, and using various analytical techniques and tools to make sense of the data. It also involves critically evaluating the data to ensure its accuracy and relevance. The ultimate goal of data analysis is to extract meaningful and actionable information that can inform decision-making and drive business outcomes. This process requires a combination of technical skills, critical thinking, and domain knowledge to effectively derive value from data.

Part 1: Inferential Statistics for Association

In Part 1, we cover common inferential statistics for testing the relationship or association between variables.

Pearson Correlation Pearson correlation (Analyze > Correlate > Bivariate) is used to assess the strength of a linear relationship between two continuous numeric variables. Chi-square Test of Independence The Chi-Square Test of Independence is used to test if two categorical variables are independent of each other.

Part 2: Inferential Statistics for Comparing Means

In Part 2, we cover common inferential statistics for testing and comparing means.

One Sample t Test One sample t tests (Analyze > Compare Means > One Sample T Test) are used to test if the mean of a continuous numeric variable is equal to a hypothesized value of the population mean. Paired-Samples T Test Paired t tests (Analyze > Compare Means > Paired-Samples T Test) are used to test if the means of two paired measurements, such as pretest/posttest scores, are significantly different. Independent Samples T Test Independent samples t tests (Analyze > Compare Means > Independent-Samples T Test) are used to test if the means of two independent groups are significantly different. One-Way ANOVA One-Way ANOVA (Analyze > Compare Means > One-Way ANOVA) is used to test if the means of two or more groups are significantly different.