

Descriptive Statistics, Significance Levels, and Hypothesis Testing

Chapter Checklist

After reading this chapter, you should be able to:

1. Explain the concept of the normal curve.
 2. Assess data for its distribution and compare it to the normal curve.
 3. Create a frequency distribution and polygon for each variable in a dataset.
 4. Compute and interpret the mean, median, and mode for each variable in a dataset.
 5. Compute the range and standard deviation for each variable in a dataset.
 6. Explain the relationship between the mean and standard deviation for scores on a variable.
 7. Use frequencies and percentages to provide a summary description of nominal data.
 8. Accurately calculate descriptive statistics.
 9. Accurately report descriptive statistics.
 10. Choose an appropriate level of significance for each statistical test used in your research project.
 11. Make a decision about a hypothesis based on the stated level of significance.
 12. Explain the relationship among sampling techniques, significance levels, and hypothesis testing.
 13. Identify when an alternative hypothesis is accepted and when a null hypothesis is retained.
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