

CHAPTER OVERVIEW

10: Categorical Data Analysis

Now that we've got the basic theory behind hypothesis testing, it's time to start looking at specific tests that are commonly used in psychology. So where should we start? Not every textbook agrees on where to start, but I'm going to start with " χ^2 tests" (this chapter) and "t-tests" (Chapter 13). Both of these tools are very frequently used in scientific practice, and while they're not as powerful as "analysis of variance" (Chapter 14) and "regression" (Chapter 15) they're much easier to understand.

The term "categorical data" is just another name for "nominal scale data". It's nothing that we haven't already discussed, it's just that in the context of data analysis people tend to use the term "categorical data" rather than "nominal scale data". I don't know why. In any case, **categorical data analysis** refers to a collection of tools that you can use when your data are nominal scale. However, there are a lot of different tools that can be used for categorical data analysis, and this chapter only covers a few of the more common ones.

- [10.1: The \$\chi^2\$ Goodness-of-fit Test](#)
- [10.2: The \$\chi^2\$ test of independence \(or association\)](#)
- [10.3: The Continuity Correction](#)
- [10.4: Effect Size](#)
- [10.5: Assumptions of the Test\(s\)](#)
- [10.6: The Most Typical Way to Do Chi-square Tests in R](#)
- [10.7: The Fisher Exact Test](#)
- [10.8: The McNemar Test](#)
- [10.9: What's the Difference Between McNemar and Independence?](#)
- [10.10: Summary](#)
- [10.11: Statistical Literacy](#)
- [10.12: Chi Square \(Exercises\)](#)

This page titled [10: Categorical Data Analysis](#) is shared under a [CC BY-SA 4.0](#) license and was authored, remixed, and/or curated by [Danielle Navarro](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.