R for Psych Handbook

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Chapter 1

Preface

This book serves as a collection of resources used in the LSU psychological statistics courses. It contains some lecture notes, as well as R code and data to run each of the examples in R.

The book is still under construction.

Chapter 2

Introduction to R

You can label chapter and section titles using `{#label}` after them, e.g., we can reference Chapter 2. If you do not manually label them, there will be automatic labels anyway, e.g., Chapter **??**.

Figures and tables with captions will be placed in `figure` and `table` environments, respectively.

```
par(mar = c(4, 4, .1, .1))
plot(pressure, type = 'b', pch = 19)
```

Reference a figure by its code chunk label with the `fig:` prefix, e.g., see Figure 2.1. Similarly, you can reference tables generated from `knitr::kable()`, e.g., see Table 2.1.

```
knitr::kable(
  head(iris, 20), caption = 'Here is a nice table!',
  booktabs = TRUE
)
```

You can write citations, too. For example, we are using the **bookdown** package (Xie, 2017) in this sample book, which was built on top of R Markdown and **knitr** (Xie, 2015).

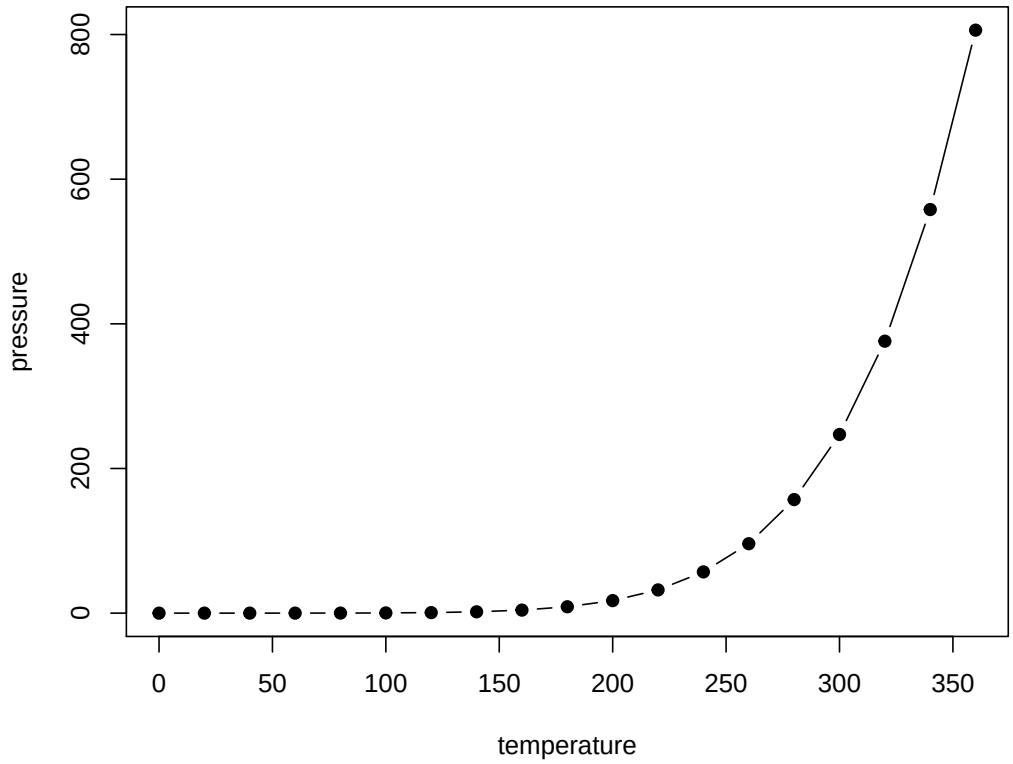

Figure 2.1: Here is a nice figure!

Table 2.1: Here is a nice table!

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5.0	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3.0	1.4	0.1	setosa
4.3	3.0	1.1	0.1	setosa
5.8	4.0	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa
5.1	3.8	1.5	0.3	setosa

Chapter 3

Data Manipulation in R

Here is a review of existing methods.

Chapter 4

Episotomology of Statistics

We describe our methods in this chapter.

Chapter 5

Descriptive Statistics, z Scores, Central Limit

Some *significant* applications are demonstrated in this chapter.

5.1 Example one

5.2 Example two

Chapter 6

Data Transformations and Confidence Intervals

We have finished a nice book.

Chapter 7

Power and Effect Size Measures

attempt here

Chapter 8

Correlation and Regression

attempt here

Chapter 9

Matched T Test

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Chapter 10

One Way ANOVA

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Chapter 11

Multiple Comparisons

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Chapter 12

Simple Effects, Interactions, Mixed Designs

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Chapter 13

Repeated Measures ANOVA:

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Chapter 14

Mixed Two Way ANOVA

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Chapter 15

Multiple Regression

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Chi-Square

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Non-Parametric Data

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Advanced Data Cleaning

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Advanced Multiple Regression

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Logistic Regression

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ANCOVA

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MANOVA

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Repeated Measures ANOVA

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Chapter 25

Factor Analysis

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Chapter 26

Mixed Effects Models

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Chapter 27

Confirmatory Factor Analysis

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Chapter 28

This is a template file

Template file

Bibliography

Xie, Y. (2015). *Dynamic Documents with R and knitr*. Chapman and Hall/CRC, Boca Raton, Florida, 2nd edition. ISBN 978-1498716963.

Xie, Y. (2017). *bookdown: Authoring Books and Technical Documents with R Markdown*. R package version 0.5.