Data Science in Educational Research

Joshua M. Rosenberg 2017-01-08

Contents

| 1 | Introduction | 5 |
|-----------|--------------------------------------|-----------|
| 2 | Getting Started | 7 |
| 3 | Accessing Data | 9 |
| 4 | Processing and Tidying Data | 11 |
| 5 | Data Visualization | 13 |
| 6 | Linear Models (Regression and ANOVA) | 15 |
| 7 | Linear Mixed Effects Models | 17 |
| 8 | Social Network Analysis | 19 |
| 9 | Factor Analysis | 21 |
| 10 | Latent Variable Models | 23 |
| 11 | Natural Language Processing | 25 |
| 12 | Cluster Analysis | 27 |
| 13 | Reproducibility | 29 |
| 14 | Communicating | 31 |

4 CONTENTS

Introduction

Getting Started

Very important things.

Accessing Data

Processing and Tidying Data

We describe our methods in this chapter.

Data Visualization

We have finished a nice book.

Linear Models (Regression and ANOVA)

Some significant applications are demonstrated in this chapter.

Linear Mixed Effects Models

Social Network Analysis

Factor Analysis

Latent Variable Models

Natural Language Processing

Cluster Analysis

Reproducibility

Communicating

Bibliography