

# Research Design and Analysis I

PSY-Educ 6600 Class Notes and Reading Summaries

*Your Name*

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Figure 1: Taught by Sarah Schwartz and Tyson Barrett

## **Prepatory Topics**

### **0.1 APA Style**

Optional to write about APA style.

## **0.2 Chap 1. Intro to Stats**

Optional to type in some notes

# 1 Exploratory Analysis

## 1.1 Chap 2. Exploration of Data with Plots

## 1.2 Chap 3. Summarizing Data with Descriptive Statistics

### 1.3 Chap 4. Standardized Scores & The Normal Distribution

## 2 Groundwork for Inference

### 2.1 Chap 5. Intro to Hypothesis Testing: 1 Sample z-test

## 2.2 Chap 6. Confidence Interval Estimation: The $t$ Distribution



## 2.3 Chap 7. Independent Samples t-Test for Means

## 2.4 Chap 8. Statistical Power & Effect Size

### 3 Hypothesis Tests for 2 Measures Per Subject

#### 3.1 Chap 9. Linear Correlation

## 3.2 Chap 10. Linear Regression

### 3.3 Chap 11. Matched t-Test

## 4 ANOVA without Repeated Measures

### 4.1 Chap 12. 1-way Independent Groups ANOVA

## 4.2 Chap 13. Multiple Comparisons

### 4.3 Chap 14. 2-way ANOVA



## 5 ANOVA with Repeated Measures

### 5.1 Chap 15. Repeated Measures ANOVA

## 5.2 Chap 16. 2-way Mixed Design ANOVA

## 6 Categorical Data

### 6.1 Chap 19. The Binomial Distribution

## 6.2 Chap 20. Chi-Squared Tests