

## CHAPTER OVERVIEW

### Chapter 1: Research and Statistical Thinking in Everyday Life

#### Learning Objectives

After reading this chapter, you should be able to:

- discuss research and statistical thinking in everyday life
- describe the central goals and fundamental concepts of statistics.

*We are drowning in information, but we are starved for knowledge* – John Naisbitt<sup>[1]</sup>

When was the last time you made a decision? Perhaps you decided to sleep in this morning instead of going for a run, or maybe you chose to make coffee when you woke up. Even reading this book is a decision you've made.

As you made these decisions, what thoughts were going through your mind? Maybe when you decided to sleep in, you rationalised that getting more sleep is better for you than exercising. Perhaps you decided to make coffee because it gives you a caffeine boost and helps you focus on the task at hand. And maybe you're reading this book because you want to see if my approach will help you get a better grade on your next statistics assignment.

What if I told you that statistical thinking can help you make better decisions? That may sound like a pyramid scheme, but I believe this sentiment is true.

Many people don't realise that they already use statistical thinking on a daily basis. For example, students are often adept at this when they calculate how many points they need on the next assessment to pass the overall subject.

#### A Note on Dealing with Anxiety Related to Statistics

Before we continue, I want to acknowledge the anxiety that many people feel when they first take a statistics class. The use of unfamiliar statistical software can also feel overwhelming. However, feeling anxious does not mean that you are bad at statistics or that you don't understand it. Statistics are not necessarily intuitive.

Anxiety can be uncomfortable, but psychology tells us that this kind of emotional arousal can actually help us perform better on tasks by focusing our attention. So, if you start to feel anxious about the materials in your statistics course, remind yourself that other students in your class are likely feeling the same way and that the arousal could actually help you perform better, even if it doesn't seem like it.

Before we delve into the details, let's first discuss what statistics can do for us.

[1.1: What can Statistics do for us?](#)

[1.2: If I Apply Statistical Thinking all the Time then why do I find it Difficult?](#)

[1.3: Big Ideas in Statistics](#)

[1.4: Data is/are](#)

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1. Naisbitt, J. (1982). *Megatrends: Ten new directions transforming our lives*. Warner Books. [↩](#)