Chapter 1
First Contact:
Overview of Book & the SPSS Tutorial

1.1 Goals of this book

We have a number of goals in this book. The first is to provide an introduction to how to use the **Statistical Package for the Social Sciences** (SPSS) for data analysis. The text includes step-by-step instructions, along with screen shots and videos, to conduct various procedures in SPSS to perform statistical data analysis.

However, another goal is to show how SPSS is actually used to understand and interpret the results of research. Thus, we will also discuss the meaning of the data analyses introduced in this text, as well as how a researcher would write these interpretations to present results to others.

This text is designed to be a supplement to undergraduate and graduate courses in statistics and research methods. As such, we do not provide detailed instructions about statistics and methods, leaving that for the respective primary courses.

Although each chapter is designed to be easily accessible to the beginner, we understand that there may be large differences in background with computers, research and statistics. We will assume that you have basic knowledge and experience in these areas. However, if you have minimal experience with computers, research or statistics, we recommend that you read the Appendix, in which we explain some of the basics for the novice.

1.2 Why Have We Chosen to Work with SPSS?

There is no question that business, education, and all fields of science have come to rely heavily on the computer. This dependence has become so great that it is no longer possible to understand social and health science research without substantial knowledge of statistics and without at least some rudimentary understanding of statistical software.

The number and types of statistical software packages that are available continue to grow each year. In this book we have chosen to work with SPSS, or the **Statistical Package for the Social Sciences**. SPSS was chosen because of its popularity within both academic and business circles, making it the most widely used package of its type. SPSS is also a versatile package that allows many different types of analyses, data

transformations, and forms of output - in short, it will more than adequately serve our purposes.

The SPSS software package is continually being updated and improved, and so with each major revision comes a new version of that package. In this book, we will describe and use the most recent version of SPSS, called **SPSS for Windows 14.0** Thus, in order to use this text for data analysis, your must have access to the SPSS for Windows 14.0 software package.

However, don't be alarmed if you have an earlier version of SPSS (e.g., Versions 12.0 or 13.0), since the look and feel of SPSS hasn't changed much over the last three versions. Your instructor will explain any differences if you are using a version earlier than 12.0.

1.3 The EZDATA Project and File

Throughout this text we will be illustrating how to compute different statistics in the context of a single, hypothetical research project. Further, we will use the same data file (which we will call **EZDATA**) throughout the book as we demonstrate the various types of data analyses called for by different research methodologies. We believe that this will provide you with a sense of the entire research process, from designing a study, through inputting the data into a file for analysis, to the computation of various statistics and interpretation of the results.

In using the same project and data set throughout, we hope to provide continuity between chapters and give you an appreciation for the unfolding process that researchers experience as they undertake each new analysis of the data. We will introduce this project and the EZDATA file in Chapter 5.

However, to introduce you the main features of SPSS, we will first begin with a simple example using a much smaller data file. That way, you can learn the basics of SPSS procedures before applying them to the more complex EZDATA file, and this will provide added practice before you begin to work on exercises at the end of each chapter (which are likely to be assigned as homework by your instructor).

Once we begin working with the EZDATA file (beginning in Chapter 6), each chapter will include an example procedure using variables in the EZDATA file. The exercises at the end of each chapter will always ask you to complete the same procedures illustrated in the chapter example, but using a different set of variables in the file. This will facilitate your learning and will also provide continuity within and between chapters.

1.4 Suggestions for using this book: Practice Makes Perfect!

This book emphasizes an active learning approach. That is, the best way to learn the skills for using SPSS is to practice them as you are reading about the various procedures introduced in this book. This book is organized as follows:

- We introduce procedures in each chapter by showing actual **Screen Shots** of what you will see in SPSS as each step of the procedure is completed.
- After we explain procedures, we provide short **Show Me! Videos** showing the steps actually being completed in SPSS
- At the end of each chapter we provide **Review Me! Videos** summarizing all of the procedures in that chapter.
- We present **Exercises** at the end of each to give you more practice performing the same procedures in the chapter, but on a different variables or a different example.

Thus, with each example, we explain the steps, show them, review them, and then ask you to apply them to a new example. As you progress through each chapter, we recommend the following:

- **Have SPSS open** on your computer as you read the chapter.
- **Do the examples** yourself by completing each step in SPSS.
- **Save the files** of the chapter examples to help when doing end of chapter exercises.
- **Take notes** on the explanations of the resulting SPSS output files.

Adopting this active approach should solidify your learning how to use SPSS, as well as to help you formulate questions for your instructor if you experience any problems. Another reason to actually do the examples in the chapters is that that your instructor is likely to assign the end-of-chapter exercises as homework!

Thus, if you do the examples in the chapters, the exercises at the end of the chapter will be much easier to do. We believe that following these suggestions will greatly facilitate your learning and understanding of SPSS and interpretation of data analyses in relation to our EZDATA research project.

A word of caution here: we sometimes find that students get confused and turn in the **examples** that they did while reading the chapter rather than the **exercises** at the end of the chapter. So remember:

- The end-of-chapter exercises always involve the same procedures as the in-chapter examples, but on a *different* set of variables of the EZDATA file.
- Although the outputs from the end-of-chapter exercises will look similar to those of the in-chapter examples, the actual variables and statistics will be different.
- Your instructor will most likely be asking you to turn in your output file for the end-of-chapter exercises, not the in-chapter examples.

1.5a The SPSS Start Up Tutorial

SPSS for Windows also has many built-in help features that you can access at any point while using SPSS. We recommend that you run the **SPSS Tutorial**, which you can access when you open up SPSS. You must either have SPSS installed on your hard drive or be able to access SPSS on a network in order to open the program.

If you are confused about how to open SPSS, ask your instructor or see Appendix 1, where we provide more information about accessing SPSS from your hard drive or from a network. For now, to illustrate how to access the SPSS tutorial, we will assume that SPSS is installed on your computer. Regardless of how you access SPSS, the **Start Up Screen** will look the same.
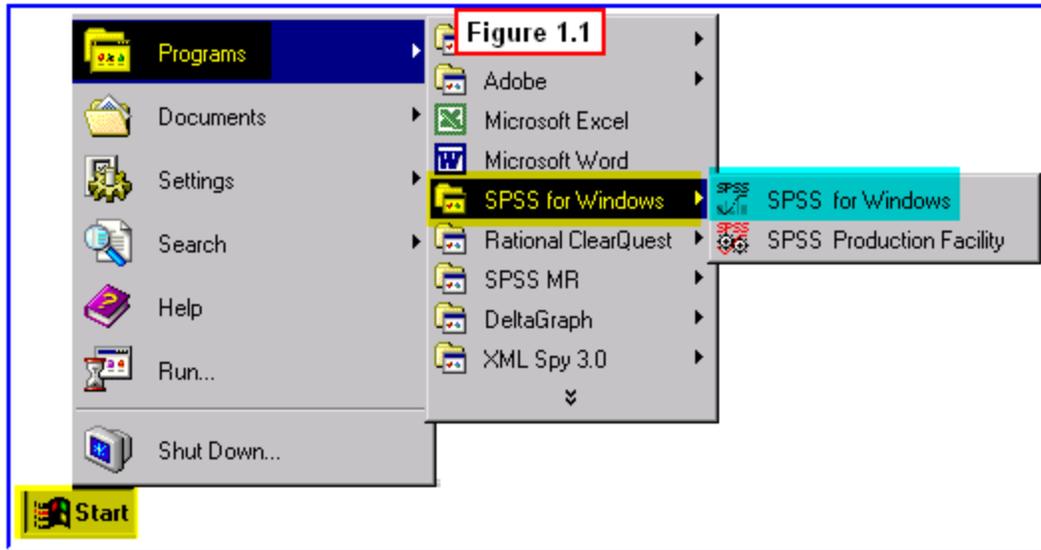
Hint: You have undoubtedly had two programs running simultaneously on your computer. Many people use the **task bar** at the bottom of their computer screen to switch between windows running different programs/subprograms (that is, they alternately click on the boxes on the task bar).

This can be tedious (and sometimes difficult, since many windows can be open simultaneously in SPSS). Here is a handy short-cut for switching between active windows:

- Simultaneously press the **alt** and the **tab** buttons on the keyboard.
- When you press **alt-tab**, a pop-up will display all running programs/windows.
- While still depressing the **alt** key, tap the **tab** key to move between programs.

This will facilitate your moving back and forth between the browser window displaying this book and the window in which SPSS is open.

To open SPSS from your computer, click (in sequence) **Start, Programs, SPSS for Windows**, **SPSS for Windows** (Figure 1.1).

Programs	▶	🔲 **Figure 1.1** ▶
		Adobe ▶
Documents	▶	🔳 Microsoft Excel
		📄 Microsoft Word
Settings	▶	📁 SPSS for Windows ▶
		Rational ClearQuest ▶
Search	▶	SPSS MR ▶
		DeltaGraph ▶
Help		XML Spy 3.0 ▶
Run...		⊻
Shut Down...		

SPSS for Windows → SPSS for Windows / SPSS Production Facility

Start

At startup a pop-up dialogue box appears asking "What would you like to do?" Select **Run the tutorial**, then click **OK** (Figure 1.2).

Figure 1.2
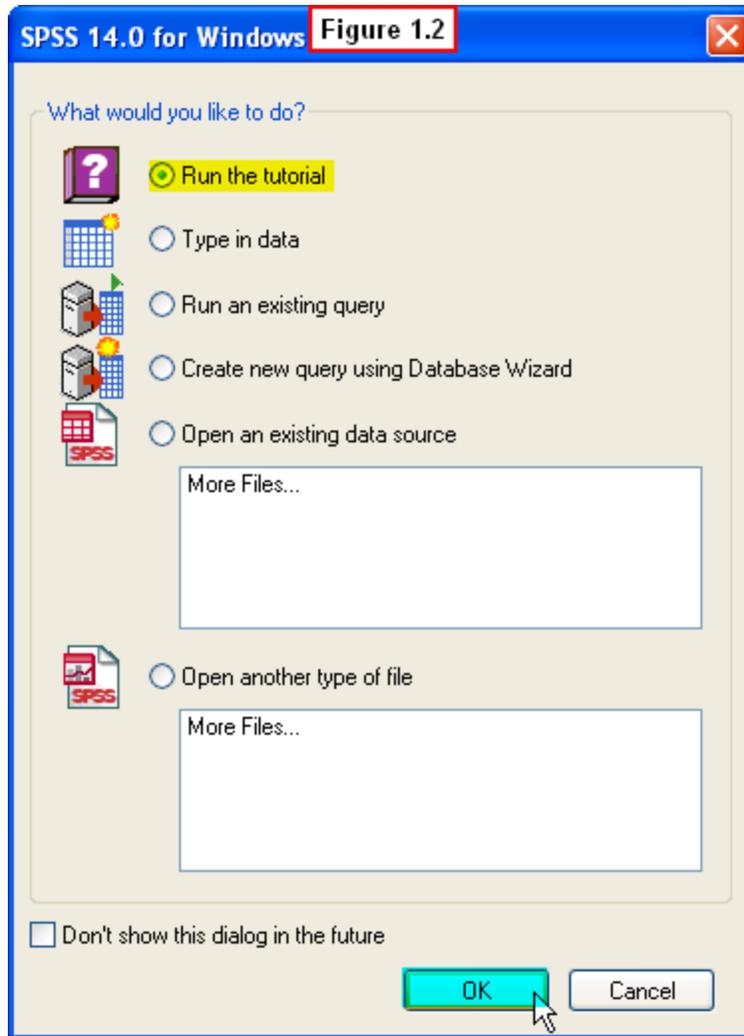
This start up screen will then close and the **SPSS Tutorial** window will open displaying the table of contents. To view a tutorial:

- Click on an item (e.g., **Introduction**), then click on a submenu item (e.g., **Starting SPSS**).
- A viewer window opens providing a tutorial on this topic.
- Click the right/left arrow buttons in the lower right of this screen to navigate through the topic.
- Click the **x** in the upper right corner to close the tutorial window.

1.5b The Show Me Video! Feature of this Book

As an additional learning aid, throughout this text we include a feature called Show Me Video!

Throughout the book we provide short video clips of some of the SPSS procedures described in each chapter. After introducing a procedure and showing still images, we present a video that shows this procedure actually being performed in SPSS.

Below is the first of these videos, which shows the steps we just described above for running the SPSS tutorial.

Show Me Video!

1.5c Accessing the SPSS Tutorial in the Data Editor Window

When you close the tutorial, window you will return to the main window of SPSS (called the **Data Editor** window - we'll have more to say about this window in Chapter 2). You can also run the tutorial at any time by clicking on **Help** from the drop-down menu at the top of the window, then selecting **Tutorial** (Figure 1.3).
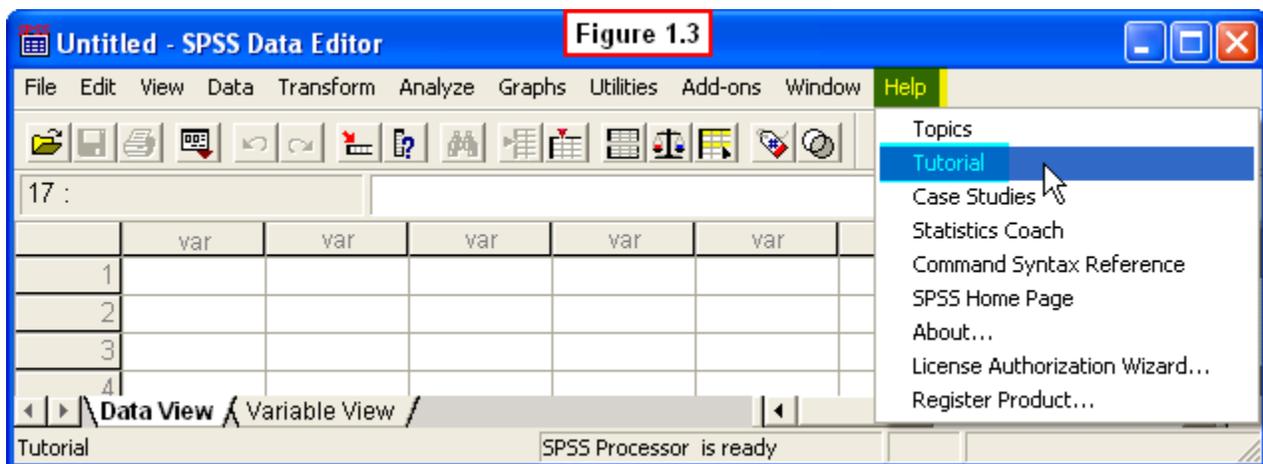
Show Me Video!

Not everything in the tutorial is relevant to the beginner, but we suggest that you run through the basics of SPSS explained in this tutorial. Also, keep in mind that there are many other ways to obtain tutorial help from SPSS other than by running the tutorial.

That is, **SPSS Help** can be accessed from just about anywhere within the program. In the **Appendix** we have included several of the screenshots and videos illustrating ways of obtaining help from various points within SPSS. We encourage you to review the Appendix so that you will be familiar with these other ways of obtaining help later on when we are performing various analyses in SPSS.

Now that you have had your first contact with SPSS, let's move on to a close encounter in Chapter 2, where you will learn how to create a simple data file in SPSS. We will then run a simple statistical procedure on this data and briefly discuss the resulting output.

This should familiarize you with the basic features of SPSS before we begin work on the EZDATA project mentioned earlier.

1.6 Chapter Video Review

Review Me! video is another learning feature of this text. At the end of every chapter, we will provide a **Review Video** which combines all the individual videos in the chapter into one video. This will be a good way of summarizing procedures and reinforcing your learning.

Review Me!