1 Introduction

SPSS is an abbreviation of Statistical Product and Service Solutions (formerly Statistical Package for the Social Sciences), and it is distributed by SPSS Inc. of Chicago, Illinois, USA. The detailed operations described in this book apply specifically to Version 10 and 11. For other versions of Windows and of SPSS, there are slight variations, but most of the essential features remain the same.

SPSS for Windows is the oldest and most popular of the many packages of computer programs currently available for statistical analysis. Although it is extremely powerful, it is relatively easy to use once you've been taught the rudiments. We can teach you the rudiments quite quickly, and you'll certainly need our guidance, because the package is not self-explanatory and you cannot simply teach yourself to use it just by fiddling around and using the help menu, as one of us was annoyed to discover some years ago. For both of us, and many people we've spoken to, the chief problem in learning to use it is that the various manuals on the market – some issued by SPSS Inc. and some by independent writers – are too detailed, too complicated, and above all too *long* to provide the quick introduction that we need. This book is aimed at readers like ourselves who lack the time to plough through thick manuals, or the patience to submit to a screen-based tutor, but who want to be able to pick up the essential skills for performing standard statistical analyses with SPSS for Windows, and who prefer to learn these skills rapidly and painlessly. If you are one of those people who *are* happy to spend many evenings and weekends learning SPSS for Windows the long way, then our considered advice to you is that you should get out more and develop some stimulating leisure activities.

Chapter 2 will begin with a general introduction to the use of Windows, focusing on the essential aspects you need for using SPSS for Windows. If you are already familiar with Windows, you can safely skip most of the elementary information in chapter 2, but you should

read sections 2.3, 2.4, and 2.6 to handle data in SPSS for Windows. The chapters that follow will tell you how to load data from disk, how to print data, how to obtain descriptive statistics, including means, standard deviations, and variances, how to compute Pearson's correlation coefficient and Spearman's rho, chi-square tests, t tests for independent and paired samples, Mann–Whitney U tests, Wilcoxon matched-pairs tests, analysis of variance in all its major forms, multiple regression, log-linear analysis, and factor analysis, and how to draw charts and graphs with SPSS for Windows. The procedures covered by this book include the most important ones used by psychologists and other social and behavioural scientists. Once you've mastered these techniques, you should have little difficulty teaching yourself other procedures available in SPSS for Windows.

This book will not teach you statistics. We assume that you already know enough about statistics to understand what assumptions are made about the data that you enter into SPSS for Windows, what procedures to use for analysing the data, and how to interpret the results. There is no point trying to analyse data unless you know what you are doing. If you need to brush up on your basic knowledge of statistics, there are many good books for you to consult. Among the ones that we're happy to recommend are Hays (1994), Howell (1999), Huck (2000), Norman and Streiner (2000), and Pagano (2001). (Bibliographic details of publications cited in the text can all be found in the list of references at the back of this book.) We have none the less included in the preliminary pages a flow chart to help you choose an appropriate statistical procedure, and a table showing where to find things in SPSS for Windows. Both are restricted to the most commonly used procedures that are specifically dealt with in this book. There are far more statistical procedures available in SPSS for Windows, and both the flow chart and the table are only rudimentary, in the spirit of the book as a whole.

Even if you know what you're doing, the output that you obtain will be of little value if your data are of poor quality. This nugget of truth is expressed in the computer slang word *gigo*, which stands for *garbage in, garbage out*. Awesome though it is, SPSS for Windows is not a magic oven that can miraculously transform garbage data into *haute cuisine* output. To get useful output, you need properly collected data and carefully considered statistical analysis.

We hope and expect that this book will put you on the road to becoming a fluent and efficient user of SPSS for Windows. Believe it or not, data analysis is fun, once you get the hang of it. Our usability trials, referred to in the preface to the first edition, showed that our crash course in SPSS for Windows takes most people no more than about ten hours and that most people find it quite enjoyable. Happy computing!