

# Preface

*Excel 2007 for Educational and Psychological Statistics: A Guide to Solving Practical Problems* is intended for anyone looking to learn the basics of applying Excel's powerful statistical tools to their courses in education or psychology or in their business activities. If understanding statistics isn't your strongest suit, you are not especially mathematically inclined, or if you are wary of computers, then this is the right book for you.

Here you'll learn how to use key statistical tests using Excel without being overpowered by the underlying statistical theory. This book clearly and methodically shows and explains how to create and use these statistical tests to solve practical problems in education and psychology.

Excel is an easily available computer program for students, instructors, and managers. It is also an effective teaching and learning tool for quantitative analyses in courses in education and psychology. The powerful numerical computational ability and the graphical functions available in Excel make learning statistics much easier than in years past. However, this is the first book to show Excel's capabilities to more effectively teach educational and psychological statistics; it also focuses exclusively on this topic in an effort to render the subject matter not only applicable and practical, but also easy to comprehend and apply.

Unique features of this book:

- You will be told each step of the way, not only *how* to use Excel, but also *why* you are doing each step so that you can understand what you are doing, and not merely learn how to use statistical tests by rote.
- Includes specific objectives embedded in the text for each concept, so you can know the purpose of the Excel steps.
- Includes 163 color screen shots so that you can be sure you are performing the Excel steps correctly.
- This book is a tool that can be used either by itself or along with *any* good statistics book.
- Practical examples and problems are taken from education and psychology.

- Statistical theory and formulas are explained in clear language without bogging you down in mathematical fine points.
- You will learn both how to write statistical formulas using Excel and how to use Excel's drop-down menus that will create the formulas for you.
- This book does not come with a CD of Excel files which you can upload to your computer. Instead, you'll be shown how to create each Excel file yourself. In a work situation, your colleagues will not give you an Excel file; you will be expected to create your own. This book will give you ample practice in developing this important skill.
- Each chapter presents the steps needed to solve a practical statistics problem using Excel. In addition, there are three practice problems at the end of each chapter so you can test your new knowledge of statistics. The answers to these problems appear in Appendix A
- A "Practice Test" is given in Appendix B to test your knowledge at the end of the book. The answers to these practical problems appear in Appendix C.

This book is appropriate for use in any course in educational and psychological statistics (at both undergraduate and graduate levels) as well as for managers who want to improve the usefulness of their Excel skills.

This book has a single author, Dr. Tom Quirk, a current Professor of Marketing at the George Herbert Walker School of Business & Technology at Webster University in St. Louis, Missouri (USA), where he teaches Marketing Statistics, Marketing Research, and Pricing Strategies. The ideas in this book have been thoroughly tested in Professor Quirk's Marketing Statistics and Marketing Research courses. At the beginning of his academic career, Prof. Quirk spent 6 years in educational research at The American Institutes for Research and Educational Testing Service. He then taught Social Psychology, Educational Psychology, General Psychology, and Social Science Research Methods at Principia College in Elsah, Illinois (USA). He has published articles in *The Journal of Educational Psychology*, *Journal of Educational Research*, *Review of Educational Research*, *Journal of Educational Measurement*, *Educational Technology*, *The Elementary School Journal*, *Journal of Secondary Education*, *Educational Horizons*, and *Phi Delta Kappan*. In addition, Professor Quirk has written more than 60 textbook supplements in Management and Marketing, published more than 20 articles in professional journals, and presented more than 20 papers at professional meetings, including annual meetings of The American Educational Research Association, The American Psychological Association, and the National Council on Measurement in Education. He holds a B.S. in Mathematics from John Carroll University, both an M.A. in Education and a Ph.D. in Educational Psychology from Stanford University, and an M.B.A. from the University of Missouri-St. Louis.

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