

Preface

Excel 2010 for Educational and Psychological Statistics: A Guide to Solving Practical Problems helps anyone who wants to learn the basics of applying Excel's powerful statistical tools to their work situation or to their classes. If understanding statistics is not your strongest suit, you are not mathematically inclined, or you are wary of computers, then this is the book for you.

You will learn how to perform key statistical tests in Excel without being overwhelmed by statistical theory. This book clearly and logically shows how to run statistical tests to solve practical problems in education and psychology.

Excel is a widely available computer program for students, instructors, and managers in education and in business. It is also an effective teaching and learning tool for quantitative analyses in statistics courses. Its powerful computational ability and graphical functions make learning statistics much easier than in years past. However, this is the first book to showcase Excel's usefulness in teaching educational and psychological statistics. And it focuses exclusively on this topic in order to render the subject matter applicable and practical – and, easy to comprehend and apply.

Unique features of this book:

- Includes 163 color screen shots so you can be sure you are performing Excel steps correctly.
- You will be told each step of the way, not only *how* to use Excel, but also *why* you are doing each step.
- Includes specific objectives embedded in the text for each concept, so you can know the purpose of the Excel steps.
- 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.
- Statistical theory and formulas are explained in clear language without bogging you down in mathematical fine points.
- Practical examples of problems are taken from both education and psychology.

- Each chapter presents key steps to solve practical problems using Excel. In addition, three practice problems at the end of each chapter enable you to test your new knowledge. 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. Answers to this test appear in Appendix C.
- This book does not come with a CD of Excel files which you can upload to your computer. Instead, you will be shown how to create each Excel file yourself. In a work or classroom situation, your colleagues and professors 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.
- This book is a tool that can be used either by itself or along with *any* good statistics book.

This book is appropriate for use in any course – graduate of undergraduate – in Educational and Psychological Statistics, as well as for administrators/managers who want to improve their Excel skills. It will also benefit students who are taking courses in Sociology, Anthropology, or Computer Science who want to learn how to use Excel to solve statistics problems.

The ideas in this book have been thoroughly tested by its author, Professor Tom Quirk, in both 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, and General Psychology at Principia College and is currently a Professor of Marketing in the George Herbert Walker School of Business & Technology at Webster University based in St. Louis, Missouri (USA) where he teaches Marketing Statistics, Marketing Research, and Pricing Strategies. 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, he has written 60+ textbook supplements in Marketing and Management, published 20+ articles in professional journals, and presented 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 BS in Mathematics from John Carroll University, both an MA in Education and a PhD in Educational Psychology from Stanford University, and an MBA from The University of Missouri-St. Louis.

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