Statistics In Psychology Explanations Without Equations

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Introduction to Structural Equation Modeling Using IBM SPSS Statistics and Amos Niels Blunch 2012-11-09
This comprehensive Second Edition offers readers a complete guide to carrying out research projects involving structural equation modeling (SEM). Updated to include extensive analysis of AMOS' graphical interface, a new chapter on latent curve models and detailed explanations of the structural equation modeling process, this second edition is the ideal guide for those new to the field. The book includes: Learning objectives, key concepts and questions for further discussion in each chapter. Helpful diagrams and screenshots to expand on concepts covered in the texts. Real life examples from a variety of disciplines to show how SEM is applied in real research contexts. Exercises for each chapter on an accompanying companion website. A new glossary. Assuming no previous experience of the subject, and a minimum of mathematical knowledge, this is the ideal guide for those new to SEM and an invaluable companion for students taking introductory SEM courses in any discipline. Niels J. Blunch was formerly in the Department of Marketing and Statistics at the University of Aarhus, Denmark

Learning Statistics Using R - Randall E. Schumacker 2014-01-28
Providing easy-to-use R script programs that teach descriptive statistics, graphing, and other statistical methods, Learning Statistics Using R shows readers how to run and utilize R, a free integrated statistical suite that has an extensive library of functions. Lecturers - contact your local SAGE representative to discuss your course needs or to request an inspection copy. Randall E. Schumacker's comprehensive book describes in detail the processing of variables in statistical procedures. Covering a wide range of topics, from probability and sampling distribution to statistical theorems and chi-square, this introductory book helps readers learn not only how to use formulae to calculate statistics, but also how specific statistics fit into the overall research process. Learning Statistics Using R covers data input from vectors, arrays, matrices and data frames, as well as the input of data sets from SPSS, SAS, STATA and other software packages. Schumacker's text provides the freedom to effectively calculate, manipulate, and graphically display data, using R, on different computer operating systems without the expense of commercial software. Learning Statistics Using R places statistics within the framework of conducting research, where statistical research hypotheses can be directly addressed. Each chapter includes discussion and explanations, tables and graphs, and R functions and outputs to enrich readers' understanding of statistics through statistical computing and modeling.

Learning Statistics with R - Daniel Navarro 2013-01-13
"Learning Statistics with R" covers the contents of an introductory statistics class, as typically taught to undergraduate psychology students, focusing on the use of the R statistical software and adopting a light, conversational style throughout. The book discusses how to get started in R, and gives an introduction to data manipulation and writing scripts. From a statistical perspective, the book discusses descriptive statistics and graphing first, followed by chapters on probability theory, sampling and estimation, and null hypothesis testing. After introducing the theory, the book covers the analysis of contingency tables, t-tests, ANOVAs and regression. Bayesian statistics are covered at the end of the book. For more information (and the opportunity to check the book out before you buy!) visit http://ua.edu.au/ccs/teaching/lsr or http://learningstatisticswithr.com

Statistics in Plain English - Timothy C. Urdan 2001
This book presents statistical concepts and techniques in simple, everyday language to help readers gain a better understanding of how they work and how to interpret them correctly. Each self-contained chapter features a description of the statistic including how it is used and the information it provides, how to calculate the formula, the strengths and weaknesses of each technique, the conditions needed for its use, and an example that uses and interprets the statistic. A glossary of terms and symbols is also included along with an Interactive CD with PowerPoint presentations and problems and solutions for each chapter. This brief paperback is an ideal supplement for statistics, research methods, or any course that uses statistics, or as a handy reference tool to refresh one's memory about key concepts. The actual research examples are from a variety of fields, including psychology and education.

Cartoon Guide to Statistics - Larry Gonick 1993-07-14
If you have ever looked for P-values by shopping at P mart, tried to watch the Bernoulli Trails on "People's Court," or think that the standard deviation is a criminal offense in six states, then you need The Cartoon Guide to Statistics to put you on the road to statistical literacy. The Cartoon Guide to Statistics covers all the central ideas of modern statistics: the summary and display of data, probability in gambling and medicine, random variables, Bernoulli Trails, the Central Limit Theorem, hypothesis testing, confidence interval estimation, and much more—all explained in simple, clear, and yes, funny illustrations. Never again will you order the Poisson Distribution in a French restaurant!

Research Methods and Statistics in Psychology - Hugh Coolican 2017-08-16
This sixth edition of Research Methods and Statistics in Psychology has been fully revised and updated, providing students with the most readable and comprehensive survey of research methods, statistical concepts and procedures in psychology today. Assuming no prior knowledge, this bestselling text takes you through every stage of your research project giving advice on planning and conducting studies, analysing data and writing up reports. The book provides clear coverage of statistical procedures, and includes everything needed from nominal level tests to multi-factorial ANOVA designs, multiple regression and log linear analysis. It features detailed and illustrated SPSS instructions for all these procedures eliminating the need for an extra SPSS textbook. New features in the sixth edition include: "Tricky bits" - in-depth notes on the things that students typically have problems with, including common misunderstandings and likely mistakes. Improved coverage of qualitative methods and analysis, plus updates to Grounded Theory, Interpretive Phenomenological Analysis and Discourse Analysis. A full and recently published journal article using Thematic Analysis, illustrating how articles appear in print. Discussion of contemporary issues and debates, including recent coverage of journals' reluctance to publish replication of studies. Fully updated online links, offering even more information and useful resources, especially for statistics. Each chapter contains a glossary, key terms and newly integrated exercises, ensuring that key concepts are understood. A companion website (www.routledge.com/cw/coolican) provides additional exercises, revision flash cards, links to further reading and data for use with SPSS.

Methods and Measurements - Bernard C. Beins 2012
Highlights the different ways that psychology researchers ask questions and how they attempt to answer them.

Statistics: A Very Short Introduction David J. Hand 2008-10-23
Modern statistics is very different from the dry and dusty discipline of the popular imagination. In its place

is an exciting subject which uses deep theory and powerful software tools to shed light and enable understanding. And it sheds this light on all aspects of our lives, enabling astronomers to explore the origins of the universe, archaeologists to investigate ancient civilisations, governments to understand how to benefit and improve society, and businesses to learn how best to provide goods and services. Aimed at readers with no prior mathematical knowledge, this Very Short Introduction explores and explains how statistics work, and how we can decipher them. ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

Advanced Statistics in Research Larry Hatcher 2013
"Advanced Statistics in Research: Reading, Understanding, and Writing Up Data Analysis Results" is the simple, nontechnical introduction to the most complex multivariate statistics presented in empirical research articles. "wwwStatsInResearch.com, " is a companion website that provides free sample chapters, exercises, and PowerPoint slides for students and teachers. A free 600-item test bank is available to instructors. "Advanced Statistics in Research" does not show how to "perform" statistical procedures--it shows how to read, understand, and interpret them, as they are typically presented in journal articles and research reports. It demystifies the sophisticated statistics that stop most readers cold: multiple regression, logistic regression, discriminant analysis, ANOVA, ANCOVA, MANOVA, factor analysis, path analysis, structural equation modeling, meta-analysis--and more. "Advanced Statistics in Research" assumes that you have never had a course in statistics. It begins at the beginning, with research design, central tendency, variability, z scores, and the normal curve. You will learn (or re-learn) the big-three results that are common to most procedures: statistical significance, confidence intervals, and effect size. Step-by-step, each chapter gently builds on earlier concepts. Matrix algebra is avoided, and complex topics are explained using simple, easy-to-understand examples. "Need help writing up your results?" Advanced Statistics in Research shows how data-analysis results can be summarized in text, tables, and figures according to APA format. You will see how to present the basics (e.g., means and standard deviations) as well as the advanced (e.g., factor patterns, post-hoc tests, path models, and more). "Advanced Statistics in Research" is appropriate as a textbook for graduate students and upper-level undergraduates (see supplementary materials at StatsInResearch.com). It also serves as a handy shelf reference for investigators and all consumers of research.

Introductory Statistics Barbara Illowsky 2017-12-19
Introductory Statistics is designed for the one-semester, introduction to statistics course and is geared toward students majoring in fields other than math or engineering. This text assumes students have been exposed to intermediate algebra, and it focuses on the applications of statistical knowledge rather than the theory behind it. The foundation of this textbook is Collaborative Statistics, by Barbara Illowsky and Susan Dean. Additional topics, examples, and ample opportunities for practice have been added to each chapter. The development choices for this textbook were made with the guidance of many faculty members who are deeply involved in teaching this course. These choices led to innovations in art, terminology, and practical applications, all with a goal of increasing relevance and accessibility for students. We strove to make the discipline meaningful, so that students can draw from it a working knowledge that will enrich their future studies and help them make sense of the world around them. Coverage and Scope Chapter 1 Sampling and Data Chapter 2 Descriptive Statistics Chapter 3 Probability Topics Chapter 4 Discrete Random Variables Chapter 5 Continuous Random Variables Chapter 6 The Normal Distribution Chapter 7 The Central Limit Theorem Chapter 8 Confidence Intervals Chapter 9 Hypothesis Testing with One Sample Chapter 10 Hypothesis Testing with Two Samples Chapter 11 The Chi-Square Distribution Chapter 12 Linear Regression and Correlation Chapter 13 F Distribution and One-Way ANOVA

Applied Multivariate Statistical Concepts Debbie L. Hahs-Vaughn 2016-12-01
More comprehensive than other texts, this new book covers the classic and cutting edge multivariate techniques used in today's research. Ideal for courses on multivariate statistics/analysis/design, advanced statistics or quantitative techniques taught in psychology, education, sociology, and business, the book also

appeals to researchers with no training in multivariate methods. Through clear writing and engaging pedagogy and examples using real data, Hahs-Vaughn walks students through the most used methods to learn why and how to apply each technique. A conceptual approach with a higher than usual text-to-formula ratio helps reader's master key concepts so they can implement and interpret results generated by today's sophisticated software. Annotated screenshots from SPSS and other packages are integrated throughout. Designed for course flexibility, after the first 4 chapters, instructors can use chapters in any sequence or combination to fit the needs of their students. Each chapter includes a 'mathematical snapshot' that highlights the technical components of each procedure, so only the most crucial equations are included. Highlights include: -Outlines, key concepts, and vignettes related to key concepts preview what's to come in each chapter -Examples using real data from education, psychology, and other social sciences illustrate key concepts -Extensive coverage of assumptions including tables, the effects of their violation, and how to test for each technique -Conceptual, computational, and interpretative problems mirror the real-world problems students encounter in their studies and careers -A focus on data screening and power analysis with attention on the special needs of each particular method -Instructions for using SPSS via screenshots and annotated output along with HLM, Mplus, LISREL, and G*Power where appropriate, to demonstrate how to interpret results -Templates for writing research questions and APA-style write-ups of results which serve as models -Propensity score analysis chapter that demonstrates the use of this increasingly popular technique -A review of matrix algebra for those who want an introduction (prerequisites include an introduction to factorial ANOVA, ANCOVA, and simple linear regression, but knowledge of matrix algebra is not assumed) -www.routledge.com/9780415842365 provides the text's datasets preformatted for use in SPSS and other statistical packages for readers, as well as answers to all chapter problems, Power Points, and test items for instructors

An Introduction to Statistical Concepts - Richard G Lomax 2013-06-19
This comprehensive, flexible text is used in both one- and two-semester courses to review introductory through intermediate statistics. Instructors select the topics that are most appropriate for their course. Its conceptual approach helps students more easily understand the concepts and interpret SPSS and research results. Key concepts are simply stated and occasionally reintroduced and related to one another for reinforcement. Numerous examples demonstrate their relevance. This edition features more explanation to increase understanding of the concepts. Only crucial equations are included. In addition to updating throughout, the new edition features: New co-author, Debbie L. Hahs-Vaughn, the 2007 recipient of the University of Central Florida's College of Education Excellence in Graduate Teaching Award. A new chapter on logistic regression models for today's more complex methodologies. More on computing confidence intervals and conducting power analyses using G*Power. Many more SPSS screenshots to assist with understanding how to navigate SPSS and annotated SPSS output to assist in the interpretation of results. Extended sections on how to write-up statistical results in APA format. New learning tools including chapter-opening vignettes, outlines, and a list of key concepts, many more examples, tables, and figures, boxes, and chapter summaries. More tables of assumptions and the effects of their violation including how to test them in SPSS. 33% new conceptual, computational, and all new interpretative problems. A website that features PowerPoint slides, answers to the even-numbered problems, and test items for instructors, and for students the chapter outlines, key concepts, and datasets that can be used in SPSS and other packages, and more. Each chapter begins with an outline, a list of key concepts, and a vignette related to those concepts. Realistic examples from education and the behavioral sciences illustrate those concepts. Each example examines the procedures and assumptions and provides instructions for how to run SPSS, including annotated output, and tips to develop an APA style write-up. Useful tables of assumptions and the effects of their violation are included, along with how to test assumptions in SPSS. 'Stop and Think' boxes provide helpful tips for better understanding the concepts. Each chapter includes computational, conceptual, and interpretive problems. The data sets used in the examples and problems are provided on the web. Answers to the odd-numbered problems are given in the book. The first five chapters review descriptive statistics including ways of representing data graphically, statistical measures, the normal distribution, and probability and sampling. The remainder of the text covers inferential statistics involving means, proportions, variances, and correlations, basic and advanced analysis of variance and regression

models. Topics not dealt with in other texts such as robust methods, multiple comparison and nonparametric procedures, and advanced ANOVA and multiple and logistic regression models are also reviewed. Intended for one- or two-semester courses in statistics taught in education and/or the behavioral sciences at the graduate and/or advanced undergraduate level, knowledge of statistics is not a prerequisite. A rudimentary knowledge of algebra is required.

Handbook of Demonstrations and Activities in the Teaching of Psychology: Introductory, statistics, research methods, and history Mark E. Ware 1996
These books provide an invaluable reference for teachers of psychology. The plethora of teaching strategies and techniques discussed should serve to improve the quality of their teaching. For those who teach high school, college, and graduate students in psychology, education, and the social sciences, these volumes present immediate practical applications and rich sources of ideas. They contain the collective experiences of teachers who have successfully dealt with students' difficulty in mastering important concepts about human behavior. Volume 1 addresses teaching strategies for courses that make up the core of most psychology curricula; introductory psychology, statistics, research methods, and the history of psychology. Volume 2 discusses teaching physiology, perception, learning, memory, and developmental psychology. Volume 3 deals with teaching personality, abnormal clinical-counseling, and social psychology. Each volume contains a table listing the articless in that volume and identifying the primary and secondary courses in which each demonstration can be used.

The Behavioral and Social Sciences - National Research Council 1988-02-01
This volume explores the scientific frontiers and leading edges of research across the fields of anthropology, economics, political science, psychology, sociology, history, business, education, geography, law, and psychiatry, as well as the newer, more specialized areas of artificial intelligence, child development, cognitive science, communications, demography, linguistics, and management and decision science. It includes recommendations concerning new resources, facilities, and programs that may be needed over the next several years to ensure rapid progress and provide a high level of returns to basic research.

The Lady Tasting Tea - David Salsburg 2002-05-01
At a summer tea party in Cambridge, England, a lady states that tea poured into milk tastes differently than that of milk poured into tea. Her notion is shouted down by the scientific minds of the group. But one guest, by the name Ronald Aylmer Fisher, proposes to scientifically test the lady's hypothesis. There was no better person to conduct such a test. For Fisher had brought to the field of statistics an emphasis on controlling the methods for obtaining data and the importance of interpretation. He knew that how the data was gathered and applied was as important as the data themselves. In The Lady Tasting Tea, readers will encounter not only Ronald Fisher's theories (and their repercussions), but the ideas of dozens of men and women whose revolutionary work affects our everyday lives. Writing with verve and wit, author David Salsburg traces the rise and fall of Karl Pearson's theories, explores W. Edwards Deming's statistical methods of quality control (which rebuilt postwar Japan's economy), and relates the story of Stella Cunliff's early work on the capacity of small beer casks at the Guinness brewing factory. The Lady Tasting Tea is not a book of dry facts and figures, but the history of great individuals who dared to look at the world in a new way.

Statistics in Psychology - Stephen Jones 2010-09-15
How do you choose the appropriate statistical method for any given research task? What are the features that discern one statistical method from another, and for which research projects are they appropriate to use? Written specifically with the undergraduate psychology student in mind and for those who desire an explanation for the use of statistics in psychological research without the mathematics, this refreshing and much-needed introduction is invaluable for any psychology students who 'don't get numbers'. Breaking away from the traditional, numerical approaches, Jones delivers an engaging and insightful read into the rationale behind the use of statistics, drawing upon non-numerical examples and scenarios from both psychological literature and everyday life to explain key statistical concepts. Learn about the methods for testing populations and samples, standard errors, inferential and descriptive statistics as well as variables and participants. This is an ideal companion to core textbooks and will serve a clearer understanding of

statistical methods in psychology. By reading this book students can hope to gain a better sense of what makes empirically valid research and learn to critically evaluate facts and figure in any presented research. The foundations of psychology's claims are the empiricism of well-conducted and reliable data.

The Art of Statistics - David Spiegelhalter 2019-09-03
In this "important and comprehensive" guide to statistical thinking (New Yorker), discover how data literacy is changing the world and gives you a better understanding of life's biggest problems. Statistics are everywhere, as integral to science as they are to business, and in the popular media hundreds of times a day. In this age of big data, a basic grasp of statistical literacy is more important than ever if we want to separate the fact from the fiction, the ostentatious embellishments from the raw evidence -- and even more so if we hope to participate in the future, rather than being simple bystanders. In The Art of Statistics, world-renowned statistician David Spiegelhalter shows readers how to derive knowledge from raw data by focusing on the concepts and connections behind the math. Drawing on real world examples to introduce complex issues, he shows us how statistics can help us determine the luckiest passenger on the Titanic, whether a notorious serial killer could have been caught earlier, and if screening for ovarian cancer is beneficial. The Art of Statistics not only shows us how mathematicians have used statistical science to solve these problems -- it teaches us how we too can think like statisticians. We learn how to clarify our questions, assumptions, and expectations when approaching a problem, and -- perhaps even more importantly -- we learn how to responsibly interpret the answers we receive. Combining the incomparable insight of an expert with the playful enthusiasm of an aficionado, The Art of Statistics is the definitive guide to stats that every modern person needs.

Continuous Time Modeling in the Behavioral and Related Sciences Kees van Montfort 2018-10-11
This unique book provides an overview of continuous time modeling in the behavioral and related sciences. It argues that the use of discrete time models for processes that are in fact evolving in continuous time produces problems that make their application in practice highly questionable. One main issue is the dependence of discrete time parameter estimates on the chosen time interval, which leads to incomparability of results across different observation intervals. Continuous time modeling by means of differential equations offers a powerful approach for studying dynamic phenomena, yet the use of this approach in the behavioral and related sciences such as psychology, sociology, economics and medicine, is still rare. This is unfortunate, because in these fields often only a few discrete time (sampled) observations are available for analysis (e.g., daily, weekly, yearly, etc.). However, as emphasized by Rex Bergstrom, the pioneer of continuous-time modeling in econometrics, neither human beings nor the economy cease to exist in between observations. In 16 chapters, the book addresses a vast range of topics in continuous time modeling, from approaches that closely mimic traditional linear discrete time models to highly nonlinear state space modeling techniques. Each chapter describes the type of research questions and data that the approach is most suitable for, provides detailed statistical explanations of the models, and includes one or more applied examples. To allow readers to implement the various techniques directly, accompanying computer code is made available online. The book is intended as a reference work for students and scientists working with longitudinal data who have a Master's- or early PhD-level knowledge of statistics.

Multiple Regression and Beyond - Timothy Z. Keith 2019-01-14
Companion Website materials: https://tzkeith.com/ Multiple Regression and Beyond offers a conceptually-oriented introduction to multiple regression (MR) analysis and structural equation modeling (SEM), along with analyses that flow naturally from those methods. By focusing on the concepts and purposes of MR and related methods, rather than the derivation and calculation of formulae, this book introduces material to students more clearly, and in a less threatening way. In addition to illuminating content necessary for coursework, the accessibility of this approach means students are more likely to be able to conduct research using MR or SEM--and more likely to use the methods wisely. This book: • Covers both MR and SEM, while explaining their relevance to one another • Includes path analysis, confirmatory factor analysis, and latent growth modeling • Makes extensive use of real-world research examples in the chapters and in the end-of-chapter exercises • Extensive use of figures and tables providing examples and illustrating key concepts and techniques New to this edition: • New chapter on mediation, moderation, and common cause • New chapter on the analysis of interactions with latent variables and multilevel SEM • Expanded

coverage of advanced SEM techniques in chapters 18 through 22 • International case studies and examples • Updated instructor and student online resources

Research Methods in Psychology - Rajiv Jhangiani 2019

Statistics Without Tears - Derek Rowntree 2004

Basic Statistics for the Behavioral Sciences Gary Heiman 2013-01-01
Packed with real-world illustrations and the latest data available, BASIC STATISTICS FOR THE BEHAVIORAL SCIENCES, 7e demystifies and fully explains statistics in a lively, reader-friendly format. The author's clear, patiently crafted explanations with an occasional touch of humor, teach readers not only how to compute an answer but also why they should perform the procedure or what their answer reveals about the data. Offering a conceptual-intuitive approach, this popular book presents statistics within an understandable research context, deals directly and positively with potential weaknesses in mathematics, and introduces new terms and concepts in an integrated way. Available with InfoTrac Student Collections http://gocengage.com/infotrac. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Majoring in Psychology - Jeffrey L. Helms 2022-04-18
MAJORING IN PSYCHOLOGY The gold standard in preparing for an undergraduate education and career in psychology. In the newly revised Third Edition of Majoring in Psychology: Achieving Your Educational and Career Goals, distinguished psychologists and educators Drs. Jeffrey L. Helms and Daniel T. Rogers deliver an accessible and concise review of ideal strategies for embarking on a successful undergraduate career in psychology. Readers will discover the benefits of pursuing a psychology degree and learn how to prepare for a career in the field or to continue with graduate study. Filled with brand-new content, this edition includes updated statistics and links; increased considerations of issues of diversity, inclusion, and representation; new professional spotlights and insider's perspectives; and an expansion of the information on careers in research. The book also offers a wide range of supplemental exercises and materials. The new edition includes access to significantly revised instructor's materials, including accessible PowerPoint slides and an updated test bank for each chapter, as well as: A thorough introduction to succeeding in college, including important transitions to make, strategies to apply, and resources to access Comprehensive explorations of assessing and developing career goals and how to use a bachelor's degree in psychology to prepare for the job market or graduate school Practical discussions of careers in the various subfields of psychology, from forensic psychology to academia An in-depth assessment of the modern career outlook for psychology majors Perfect for aspiring and current undergraduate students considering or undertaking an undergraduate course of study in psychology, Majoring in Psychology is an indispensable resource for anyone contemplating a career in clinical, counseling, forensic, or any other subfield of psychology.

A Beginner's Guide to Structural Equation Modeling Randall E. Schumacker 2004-06-24
The second edition features: a CD with all of the book's Amos, EQS, and LISREL programs and data sets; new chapters on importing data issues related to data editing and on how to report research; an updated introduction to matrix notation and programs that illustrate how to compute these calculations; many more computer program examples and chapter exercises; and increased coverage of factors that affect correlation, the 4-step approach to SEM and hypothesis testing, significance, power, and sample size issues. The new edition's expanded use of applications make this book ideal for advanced students and researchers in psychology, education, business, health care, political science, sociology, and biology. A basic understanding of correlation is assumed and an understanding of the matrices used in SEM models is encouraged.

Statistics Done Wrong - Alex Reinhart 2015-03-01
Scientific progress depends on good research, and good research needs good statistics. But statistical analysis is tricky to get right, even for the best and brightest of us. You'd be surprised how many scientists are doing it wrong. Statistics Done Wrong is a pithy, essential guide to statistical blunders in modern science that will show you how to keep your research blunder-free. You'll examine embarrassing errors and omissions in recent research, learn about the misconceptions and scientific politics that allow these

mistakes to happen, and begin your quest to reform the way you and your peers do statistics. You'll find advice on: –Asking the right question, designing the right experiment, choosing the right statistical analysis, and sticking to the plan –How to think about p values, significance, insignificance, confidence intervals, and regression –Choosing the right sample size and avoiding false positives –Reporting your analysis and publishing your data and source code –Procedures to follow, precautions to take, and analytical software that can help Scientists: Read this concise, powerful guide to help you produce statistically sound research. Statisticians: Give this book to everyone you know. The first step toward statistics done right is Statistics Done Wrong.

Statistical Methods in Water Resources - D.R. Helsel 1993-03-03
Data on water quality and other environmental issues are being collected at an ever-increasing rate. In the past, however, the techniques used by scientists to interpret this data have not progressed as quickly. This is a book of modern statistical methods for analysis of practical problems in water quality and water resources. The last fifteen years have seen major advances in the fields of exploratory data analysis (EDA) and robust statistical methods. The 'real-life' characteristics of environmental data tend to drive analysis towards the use of these methods. These advances are presented in a practical and relevant format. Alternate methods are compared, highlighting the strengths and weaknesses of each as applied to environmental data. Techniques for trend analysis and dealing with water below the detection limit are topics covered, which are of great interest to consultants in water-quality and hydrology, scientists in state, provincial and federal water resources, and geological survey agencies. The practising water resources scientist will find the worked examples using actual field data from case studies of environmental problems, of real value. Exercises at the end of each chapter enable the mechanics of the methodological process to be fully understood, with data sets included on diskette for easy use. The result is a book that is both up-to-date and immediately relevant to ongoing work in the environmental and water sciences.

Statistics for People Who (Think They) Hate Statistics Neil J. Salkind 2006-07-14
Now in its third edition, this title teaches an often intimidating and difficult subject in a way that is informative, personable, and clear.

Straightforward Statistics Chieh-Chen Bowen 2015-09-16
Straightforward Statistics is written in plain language and connects material in a clear, logical manner to help students across the social and behavioral sciences develop a "big picture" understanding of foundational statistics. Each new chapter is purposefully connected with the previous chapter for a gradual accrual of knowledge from simple to more complex concepts—this effective, cumulative approach to statistics through logical transitions eases students into statistics and prepares them for success in more advanced quantitative coursework and their own research. Available with Perusall—an eBook that makes it easier to prepare for class Perusall is an award-winning eBook platform featuring social annotation tools that allow students and instructors to collaboratively mark up and discuss their SAGE textbook. Backed by research and supported by technological innovations developed at Harvard University, this process of learning through collaborative annotation keeps your students engaged and makes teaching easier and more effective. Learn more.

Applied Statistics: From Bivariate Through Multivariate Techniques Rebecca M. Warner 2013
Rebecca M. Warner's Applied Statistics: From Bivariate Through Multivariate Techniques, Second Edition provides a clear introduction to widely used topics in bivariate and multivariate statistics, including multiple regression, discriminant analysis, MANOVA, factor analysis, and binary logistic regression. The approach is applied and does not require formal mathematics; equations are accompanied by verbal explanations. Students are asked to think about the meaning of equations. Each chapter presents a complete empirical research example to illustrate the application of a specific method. Although SPSS examples are used throughout the book, the conceptual material will be helpful for users of different programs. Each chapter has a glossary and comprehension questions.

The Book of Why - Judea Pearl 2018-05-15
A Turing Award-winning computer scientist and statistician shows how understanding causality has revolutionized science and will revolutionize artificial intelligence "Correlation is not causation." This mantra, chanted by scientists for more than a century, has led to a virtual prohibition on causal talk. Today,

that taboo is dead. The causal revolution, instigated by Judea Pearl and his colleagues, has cut through a century of confusion and established causality -- the study of cause and effect -- on a firm scientific basis. His work explains how we can know easy things, like whether it was rain or a sprinkler that made a sidewalk wet; and how to answer hard questions, like whether a drug cured an illness. Pearl's work enables us to know not just whether one thing causes another: it lets us explore the world that is and the worlds that could have been. It shows us the essence of human thought and key to artificial intelligence. Anyone who wants to understand either needs The Book of Why.

IBM SPSS for Psychologists Nicola Brace 2016-06-16
Combining comprehensive coverage with an accessible style, the new edition of this best-selling guide leads users step-by-step through the process of using IBM SPSS version 23 to analyze research data. The authors review the basic issues regarding research design and proceed through all of the major statistical techniques, from introductory to advanced level. Readers are introduced to the rationale and use of each test and shown how to choose, perform, and report the statistical analysis of their own data. Each statistical test features a brief description, an example of typical research that might be analyzed using the test and step-by-step instructions on how to perform the test using IBM SPSS. Annotated examples of output help readers understand and report the results of their analyses. Sample screenshots and key tip boxes help readers track their progress and avoid common pitfalls. Sample exercises and datasets are available at www.he.palgrave.com/psychology/brace. Whether you re new to statistical analysis, or a more experienced researcher in need of a refresher, this book is an essential resource for those who use IBM SPSS. The sixth edition of "SPSS for Psychologists (and everybody else)": is compliant with SPSS version 23, and backward-compatible with previous versions of the software has been fully updated and revised throughout, and now provides coverage of syntax features a brand-new, reader-friendly layout that makes navigation even easier than before offers a sophisticated range of video tutorials, along with sample exercises, datasets and other useful resources at www.he.palgrave.com/psychology/brace. An ideal supplement for courses in statistics, quantitative analysis or techniques, research methods, research (experimental design) or any course in which IBM SPSS is used this book is also appreciated by researchers interested in using SPSS for their data analysis. "

Statistical Methods for Psychology - David C. Howell 2012-01-01
STATISTICAL METHODS FOR PSYCHOLOGY surveys the statistical techniques commonly used in the behavioral and social sciences, particularly psychology and education. To help students gain a better understanding of the specific statistical hypothesis tests that are covered throughout the text, author David Howell emphasizes conceptual understanding. This Eighth Edition continues to focus students on two key themes that are the cornerstones of this book's success: the importance of looking at the data before beginning a hypothesis test, and the importance of knowing the relationship between the statistical test in use and the theoretical questions being asked by the experiment. New and expanded topics--reflecting the evolving realm of statistical methods--include effect size, meta-analysis, and treatment of missing data. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

The Research Companion - Petra M. Boynton 2016-10-04
Have you ever wanted to know an effective and ethical way to: Design a study? Recruit participants? Report findings? And improve the quality and output of your research? The Research Companion focuses on the practical skills needed to complete research in the social or health sciences and development. It covers the behind-the-scenes essentials you need to run an effective and ethical piece of research and offers clear, honest advice to help avoid typical problems and improve standards and outcomes. It addresses each stage of the research process from thinking of a research idea, through to managing, monitoring, completing and reporting your project, and working effectively and safely with participants and colleagues. As well as covering theoretical issues in research, the book is full of links to other resources and contains practical tips and stories from researchers at all levels. This new edition is fully updated to reflect shifts in funding structures, open access, and online developments and has a link to a blog and friendly online community for readers to connect with diverse researchers all sharing experiences and offering practical advice. The Research Companion brings hard-earned lessons from the real world to offer invaluable guidance to all

students of the social and health sciences, from those just beginning their first research project, to experienced researchers and practitioners. It will be instrumental in raising readers' competence levels and making their research more accurate, ethical, and productive.

An Introduction to Statistics and Data Analysis Using Stata® - Lisa Daniels 2019-01-11
An Introduction to Statistics and Data Analysis Using Stata® by Lisa Daniels and Nicholas Minot provides a step-by-step introduction for statistics, data analysis, or research methods classes with Stata. Concise descriptions emphasize the concepts behind statistics for students rather than the derivations of the formulas. With real-world examples from a variety of disciplines and extensive detail on the commands in Stata, this text provides an integrated approach to research design, statistical analysis, and report writing for social science students.

An Introduction to Statistical Concepts Richard G Lomax 2020-02-03
The new edition of An Introduction to Statistical Concepts is designed to help students really understand statistical concepts, the situations in which they can be used, and how to apply them to data. Hahs-Vaughn and Lomax discuss the most popular, along with many of the lesser-known, procedures and models, whilst also exploring nonparametric procedures used when standard assumptions are violated. They provide in-depth coverage of testing assumptions and highlight several online tools for computing statistics (e.g., effect sizes and their confidence intervals and power). This comprehensive, flexible, and accessible text includes a new chapter on mediation and moderation; expanded coverage of effect sizes; and discussions of sensitivity, specificity, false positive, and false negative, along with using the receiver operator characteristic (ROC) curve. This book, noted for its crystal-clear explanations, and its inclusion of only the most crucial equations, is an invaluable resource for students undertaking a course in statistics in any number of social science and behavioral disciplines—from education, business, communication, exercise science, psychology, sociology and more.

Introduction to Statistics - Howard M. Reid 2013-08-13
Using a truly accessible and reader-friendly approach, Introduction to Statistics: Fundamental Concepts and Procedures of Data Analysis, by Howard M. Reid, redefines the way statistics can be taught and learned. Unlike other books that merely focus on procedures, Reid's approach balances development of critical thinking skills with application of those skills to contemporary statistical analysis. He goes beyond simply presenting techniques by focusing on the key concepts readers need to master in order to ensure their long-term success. Indeed, this exciting new book offers the perfect foundation upon which readers can build as their studies and careers progress to more advanced forms of statistics. Keeping computational challenges to a minimum, Reid shows readers not only how to conduct a variety of commonly used statistical procedures, but also when each procedure should be utilized and how they are related. Following a review of descriptive statistics, he begins his discussion of inferential statistics with a two-chapter examination of the Chi Square test to introduce students to hypothesis testing, the importance of determining effect size, and the need for post hoc tests. When more complex procedures related to interval/ratio data are covered, students already have a solid understanding of the foundational concepts involved. Exploring challenging topics in an engaging and easy-to-follow manner, Reid builds concepts logically and supports learning through robust pedagogical tools, the use of SPSS, numerous examples, historical quotations, insightful questions, and helpful progress checks.

Statistics As Principled Argument - Robert P. Abelson 2012-09-10
In this illuminating volume, Robert P. Abelson delves into the too-often dismissed problems of interpreting quantitative data and then presenting them in the context of a coherent story about one's research. Unlike too many books on statistics, this is a remarkably engaging read, filled with fascinating real-life (and real-research) examples rather than with recipes for analysis. It will be of true interest and lasting value to beginning graduate students and seasoned researchers alike. The focus of the book is that the purpose of statistics is to organize a useful argument from quantitative evidence, using a form of principled rhetoric. Five criteria, described by the acronym MAGIC (magnitude, articulation, generality, interestingness, and credibility) are proposed as crucial features of a persuasive, principled argument. Particular statistical methods are discussed, with minimum use of formulas and heavy data sets. The ideas throughout the book revolve around elementary probability theory, t tests, and simple issues of research design. It is therefore

assumed that the reader has already had some access to elementary statistics. Many examples are included to explain the connection of statistics to substantive claims about real phenomena.

Online Statistics Education David M Lane 2014-12-02
Online Statistics: An Interactive Multimedia Course of Study is a resource for learning and teaching introductory statistics. It contains material presented in textbook format and as video presentations. This resource features interactive demonstrations and simulations, case studies, and an analysis lab.This print edition of the public domain textbook gives the student an opportunity to own a physical copy to help enhance their educational experience. This part I features the book Front Matter, Chapters 1-10, and the full Glossary. Chapters Include:: I. Introduction, II. Graphing Distributions, III. Summarizing Distributions, IV. Describing Bivariate Data, V. Probability, VI. Research Design, VII. Normal Distributions, VIII. Advanced Graphs, IX. Sampling Distributions, and X. Estimation. Online Statistics Education: A Multimedia Course of Study (http: //onlinestatbook.com/). Project Leader: David M. Lane, Rice University.

Psychology Statistics For Dummies - Donncha Hanna 2013-01-29
The introduction to statistics that psychology students can't afford to be without Understanding statistics is a requirement for obtaining and making the most of a degree in psychology, a fact of life that often takes first year psychology students by surprise. Filled with jargon-free explanations and real-life examples, Psychology Statistics For Dummies makes the often-confusing world of statistics a lot less baffling, and provides you with the step-by-step instructions necessary for carrying out data analysis. Psychology Statistics For Dummies: Serves as an easily accessible supplement to doorstop-sized psychology textbooks Provides psychology students with psychology-specific statistics instruction Includes clear explanations and instruction on performing statistical analysis Teaches students how to analyze their data with SPSS, the most widely used statistical packages among students

Understanding Statistics in the Behavioral Sciences - Robert R. Pagano 2012-01-01
Based on over 30 years of successful teaching experience in this course, Robert Pagano's introductory text takes an intuitive, concepts-based approach to descriptive and inferential statistics. He uses the sign test to introduce inferential statistics, empirically derived sampling distributions, many visual aids, and lots of interesting examples to promote student understanding. One of the hallmarks of this text is the positive feedback from students -- even students who are not mathematically inclined praise the text for its clarity, detailed presentation, and use of humor to help make concepts accessible and memorable. Thorough explanations precede the introduction of every formula, and the exercises that immediately follow include a step-by-step model that lets students compare their work against fully solved examples. This combination makes the text perfect for students taking their first statistics course in psychology or other social and behavioral sciences. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.