Understanding The Independent T Test

With Statistics: A Gentle Introduction, Third Edition, an introductory stats class needn't be difficult or dull! Frederick L. Coolidge specifically designed his text to curtail students' anxieties and minimize unnecessary formulas, while providing a comprehensive review of basic statistical designs and analyses. A wealth of additional real-world examples have been included to give a sense of how the science of statistics works, solves problems, and helps us make informed choices about the world we live in. The author minimizes the use of formulas, but provides a step-by-step approach to their solution, and includes a glossary of key terms, symbols, and definitions at the end of each chapter. Every chapter also includes a short story about historical and contemporary statisticians who figured prominently in the evolution of the discipline of statistics. New to the Third Edition is the thorough incorporation of SPSS throughout, more visual material and figures, and an enhanced treatment of effect sizes, and more detailed explanation of statistical concepts.
This text outlines the major statistical tests used by undergraduates in the social sciences. It provides easy-to-understand explanations of how and why they are used and aims to make statistics much less mysterious.
Communication research is evolving and changing in a world of online journals, open-access, and new ways of obtaining data and conducting experiments via the Internet. Although there are generic encyclopedias describing basic social science research methodologies in general, until now there has been no comprehensive A-to-Z reference work exploring methods specific to communication and media studies. Our entries, authored by key figures in the field, focus on special considerations when applied specifically to communication research, accompanied by engaging examples from the literature of communication, journalism, and media studies. Entries cover every step of the research process, from the creative development of research topics and questions to literature reviews, selection of best methods (whether quantitative, qualitative, or mixed) for analyzing research results and publishing research findings, whether in traditional media or via new media outlets. In addition to expected entries covering the basics of theories and methods traditionally used in communication research, other entries discuss important trends influencing the future of that research, including contemporary practical issues students will face in communication professions, the influences of globalization on research, use of new recording technologies in fieldwork, and the challenges and opportunities related to studying online multi-media environments. Email, texting, cellphone video, and blogging are shown not only as topics of research but also as means of collecting and analyzing data. Still other entries delve into considerations of accountability, copyright, confidentiality, data ownership and security, privacy, and other aspects of conducting an ethical research program. Features: 652 signed entries are contained in an authoritative work spanning four volumes available in choice of electronic or print formats. Although organized A-to-Z, front matter includes a Reader's Guide grouping entries thematically to help students interested in a specific aspect of communication research to more easily locate directly related entries. Back matter includes a Chronology of the development of the field of communication research; a Resource Guide to classic books, journals, and associations; a Glossary introducing the terminology of the field; and a detailed Index. Entries conclude with References/Further Readings and Cross-References to related entries to guide students further in their research journeys. The Index, Reader's Guide themes, and Cross-References combine to provide robust search-and-browse in the e-version.
Statistics is confusing, even for smart, technically competent people. And many students and professionals find that existing books and web resources don't give them an intuitive understanding of confusing statistical concepts. That is why this book is needed. Some of the unique qualities of this book are: • Easy to Understand: Uses unique "graphics that teach" such as concept flow diagrams, compare-and-contrast tables, and even cartoons to enhance "rememberability." • Easy to Use: Alphabetically arranged, like a mini-encyclopedia, for easy lookup on the job, while studying, or during an open-book exam. • Wider Scope: Covers Statistics I and Statistics II and Six Sigma Black Belt, adding such topics as control charts and statistical process control, process capability analysis, and design of experiments. As a result, this book will be useful for business professionals and industrial engineers in addition to students and professionals in the social and physical sciences. In addition, each of the 60+ concepts is covered in one or more articles. The 75 articles in the book are usually 5–7 pages long, ensuring that things are presented in "bite-sized chunks." The first page of each article typically lists five "Keys to Understanding" which tell the reader everything they need to know on one page. This book also contains an article on "Which Statistical Tool to Use to Solve Some Common Problems", additional "Which to Use When" articles on Control Charts, Distributions, and Charts/Graphs/Plots, as well as articles explaining how different concepts work together (e.g., how Alpha, p, Critical Value, and Test Statistic interrelate). ANDREW A. JAWLIK received his B.S. in Mathematics and his M.S. in Mathematics and Computer Science from the University of Michigan. He held jobs with IBM in marketing, sales, finance, and information technology, as well as a position as Process Executive. In these jobs, he learned how to communicate difficult technical concepts in easy - to - understand terms. He completed Lean Six Sigma Black Belt coursework at the IASSC - accredited Pyzdek Institute. In order to understand the confusing statistics involved, he wrote explanations in his own words and graphics. Using this material, he passed the certification exam with a perfect score. Those statistical explanations then became the starting point for this book.
A Guide for Social Science Students
Encyclopedia of Research Design
A Practical Introduction
How to Not Lie with Statistics
Research Methods in Psychology
An Introduction to Medical Statistics

Making Sense of Statistics is the ideal introduction to the concepts of descriptive and inferential statistics for students undertaking their first research project. It presents each statistical concept in a series of short steps, then uses worked examples and exercises to enable students to apply their own learning. It focuses on presenting the why as well as the how of statistical concepts, rather than computations and formulae, so is suitable for students from all disciplines regardless of mathematical background. Only statistical techniques that are almost universally included in introductory statistics courses, and widely reported in journals, have been included. Once students understand and feel comfortable with the statistics that meet these criteria, they should find it easy to master additional statistical concepts. New to the Seventh Edition Retaining the key features and organization that have made this book an indispensable text for teaching and learning the basic concepts of statistical analysis, this new edition features: discussion of the use of observation in quantitative and qualitative research the inclusion of introductions to the book, and each Part. section objectives listed at the beginning of each section to guide the reader. new material on key topics such as z-scores, probability, Central Limit Theorem, Standard Deviation and simple and multiple regression Expanded discussion on t test with separate sections for independent and dependent samples t tests, as well as one-sample t test progressive analysis of bivariate vs multivariate statistics (starts with the basic concepts and moves to more complex analysis as the student progresses) updated and extended pedagogical material such as Chapter Objectives, exercises and worked examples to test and enhance student's understanding of the material presented in the chapter Bolded key terms, with definitions and Glossary for quick referral expanded Appendices include a brief reference list of some common computational formulas and examples. a Glossary of key terms has been added at the end of the book, with references to sections in parenthesis. New online instructor resources for classroom use consisting of test bank questions and Powerpoint slides, plus material on basic math review
In conjunction with top survey researchers around the world and with Nielsen Media Research serving as the corporate sponsor, the Encyclopedia of Survey Research Methods presents state-of-the-art information and methodological examples from the field of survey research. Although there are other "how-to" guides and references texts on survey research, none is as comprehensive as this Encyclopedia, and none presents the material in such a focused and approachable manner. With more than 600 entries, this resource uses a Total Survey Error perspective that considers all aspects of possible survey error from a cost-benefit standpoint.
Bridging an understanding of Statistics and SPSS. This unique text helps students develop a conceptual understanding of a variety of statistical tests by linking the ideas learned in a statistics class from a traditional statistics textbook with the computational steps and output from SPSS. Each chapter begins with a student-friendly explanation of the concept behind each statistical test and how the test relates to that concept. The authors then walk through the steps to compute the test in SPSS and the output, clearly linking how the SPSS procedure and output connect back to the conceptual underpinnings of the test. By drawing clear connections between the theoretical and computational aspects of statistics, this engaging text aids students' understanding of theoretical concepts by teaching them in a practical context.
A fresh approach to bridging research design with statistical analysis While good social science requires both research design and statistical analysis, most books treat these two areas separately. Understanding and Applying Research Design introduces an accessible approach to integrating design and statistics, focusing on the processes of posing, testing, and interpreting research questions in the social sciences. The authors analyze real-world data using SPSS software, guiding readers on the overall process of science, focusing on premises, procedures, and designs of social scientific research. Three clearly organized sections move seamlessly from theoretical topics to statistical techniques at the heart of research procedures, and finally, to practical application of research design: Premises of Research introduces the research process and the capabilities of SPSS, with coverage of ethics, Empirical Generalization, and Chi Square and Contingency Table Analysis Procedures of Research explores key quantitative methods in research design including measurement, correlation, regression, and causation Designs of Research outlines various design frameworks, with discussion of survey research, aggregate research, and experiments Throughout the book, SPSS software is used to showcase the discussed techniques, and detailed appendices provide guidance on key statistical procedures and tips for data management. Numerous exercises allow readers to test their comprehension of the presented material, and a related website features additional data sets and SPSS code. Understanding and Applying Research Design is an excellent book for social sciences and education courses on research methods at the upper-undergraduate level. The book is also an insightful reference for professionals who would like to learn how to pose, test, and interpret research questions with confidence.
Statistical And Data Handling Skills in Biology
Understanding Statistics for the Social Sciences with IBM SPSS
Statistical Power Analysis for the Behavioral Sciences
The Excel Edition
Statistics: A Gentle Introduction
A Practical Text for the Behavioral, Social, and Health Sciences

Written as a supplemental text for an introductory or intermediate statistics course, this book is organized along the lines of many popular statistics texts. The chapters provide a good conceptual understanding of basic statistics and include exercises that use S-PLUS simulation programs. Each chapter lists a set of objectives and a summary. The book offers a rich insight into how probability has shaped statistical procedures in the behavioral sciences, as well as a brief history behind the creation of various statistics. Computational skills are kept to a minimum by including S-PLUS programs that run the exercises in the chapters. Students are not required to master the writing of S-PLUS programs, but explanations of how the programs work and program output are included in each chapter. S-PLUS is an advanced statistical package that has an extensive library of functions, which offer flexibility in writing customized routines. The S-PLUS functions provide the capability of programming object and dialog windows, which are commonly used in Windows software applications. The S-PLUS program also contains pull-down menus for the statistical analysis of data. A ZIP file containing programs that work in S-PLUS 6.2 for use with this book is available for download from http://www.psypress.com/resources/9780805836233.zip - please note that these scripts will only run in S-PLUS 6.2 and not later versions due to changes in the programming language syntax.
Now in its third edition, this title teaches an often intimidating and difficult subject in a way that is informative, personable, and clear.
This open access textbook provides the background needed to correctly use, interpret and understand statistics and statistical data in diverse settings. Part I makes key concepts in statistics readily clear. Parts I and II give an overview of the most common tests (t-test, ANOVA, correlations) and work out their statistical principles. Part III provides insight into meta-statistics (statistics of statistics) and demonstrates why experiments often do not replicate. Finally, the textbook shows how complex statistics can be avoided by using clever experimental design. Both non-scientists and students in Biology, Biomedicine and Engineering will benefit from the book by learning the statistical basis of scientific claims and by discovering ways to evaluate the quality of scientific reports in academic journals and news outlets.
"Comprising more than 500 entries, the Encyclopedia of Research Design explains how to make decisions about research design, undertake research projects in an ethical manner, interpret and draw valid inferences from data, and evaluate experiment design strategies and results. Two additional features carry this encyclopedia far above other works in the field: bibliographic entries devoted to significant articles in the history of research design and reviews of contemporary tools, such as software and statistical procedures, used to analyze results. It covers the spectrum of research design strategies, from material presented in introductory classes to topics necessary in graduate research; it addresses cross- and multidisciplinary research needs, with many examples drawn from the social and behavioral sciences, neurosciences, and biomedical and life sciences; it provides summaries of advantages and disadvantages of often-used strategies; and it uses hundreds of sample tables, figures, and equations based on real-life cases."--Publisher's description.
Encyclopedia of Survey Research Methods
Statistics from A to Z
Making Sense of Statistics
Study Guide for Health & Nursing to Accompany Neil J. Salkind's Statistics for People Who (Think They) Hate Statistics
Basic and Advanced Statistical Tests
Understanding Statistical Concepts Using S-plus

Statistics is required coursework within most teacher certification programs. Beyond the Numbers presents a nonthreatening, practical approach to statistics, providing step-by-step instructions for understanding and implementing the essential components of the subject.The basic and understandable explanations in Beyond the Numbers break down complex statistical processes to simple arithmetic computations that can be applied with the confidence that accompanies understanding.
Statistical Concepts—A First Course presents the first 10 chapters from An Introduction to Statistical Concepts, Fourth Edition. Designed for first and lower-level statistics courses, this book communicates a conceptual, intuitive understanding of statistics that does not assume extensive or recent training in mathematics and only requires a rudimentary knowledge of algebra. Covering the most basic statistical concepts, this book is designed to help readers really understand statistical concepts, in what situations they can be applied, and how to apply them to data. Specifically, the text covers basic descriptive statistics, including ways of representing data graphically, statistical measures that describe a set of data, the normal distribution and other types of standard scores, and an introduction to probability and sampling. The remainder of the text covers various inferential tests, including those involving tests of means (e.g., t tests), proportions, variances, and correlations. Providing accessible and comprehensive coverage of topics suitable for an undergraduate or graduate course in statistics, this book is an invaluable resource for students undertaking an introductory course in statistics in any number of social science and behavioral science disciplines.
Government scrutiny and intensified oversight have dramatically changed the landscape of education in recent years. Observers want to know how schools compare, which district is best, which states are spending the most per student on education, whether reforms are making a difference, and why so many students are failing. Some of these questions require technical answers that educators historically redirected to outside experts, but the questions leveled at all educators have become so acute and persistent that they can no longer be outsourced. This text helps educators develop the tools and the conceptual understanding needed to provide definitive answers to difficult statistical questions facing education today.
Statistical Power Analysis is a nontechnical guide to power analysis in research planning that provides users of applied statistics with the tools they need for more effective analysis. The Second Edition includes: * a chapter covering power analysis in set correlation and multivariate methods; * a chapter considering effect size, psychometric reliability, and the efficacy of "qualifying" dependent variables and; * expanded power and sample size tables for multiple regression/correlation.
A Gentle Introduction
Cartoon Guide to Statistics
Statistics for People Who (Think They) Hate Statistics
Using Statistics in the Social and Health Sciences with SPSS and Excel

A Conceptual Guide to Statistics Using SPSS

If you use statistics and need easy access to simple, reliable definitions and explanations of modern statistical concepts, then look no further than this dictionary. Over 3600 terms are defined, covering medical, survey, theoretical, and applied statistics, including computational aspects. Entries are provided for standard and specialized statistical software. In addition, short biographies of over 100 important statisticians are given. Definitions provide enough mathematical detail to clarify concepts and give standard formulae when these are helpful. The majority of definitions then give a reference to a book or article where the user can seek further or more specialized information, and many are accompanied by graphical material to aid understanding.
This Study Guide for introductory statistics courses in health and nursing departments is designed to accompany Neil J. Salkind ' s Statistics for People Who (Think They) Hate Statistics, Sixth Edition. Extra exercises; activities; and true/false, multiple choice, and essay questions (with answers to all questions) feature health-specific content to help further student mastery of text concepts. Also included on the open-access study site at edge.sagepub.com/salkind6e are SPSS datafiles containing survey data from health students, which are used for the exercises in the Study Guide.
`There are few people who can write about research methods in a lively and engaging way, but Miles and Banyard are amongst them. As well as being an exceptionally clear introduction to research methods, it is full of amusing asides and anecdotes that make you want to read more. A hugely enjoyable book' - Dr Andy Field, University of Sussex Understanding and Using Statistics in Psychology takes the fear out of psychological statistics to help students understand why statistics are carried out, how to choose the best test and how to carry out the tests and understand them. Taking a non-technical approach, it encourages the reader to understand why a particular test is being used and what the results mean in the context of a psychological study, focusing on meaning and understanding rather than mindless numerical calculation. Key features include: - A light and accessible style - Descriptions of the most commonly used statistical tests and the principles that underlie them - Real world examples to aid the understanding of why statistics are valuable - Boxes on common errors, tips and quotes - Test yourself questions The perfect introductory resource, Understanding and Using Statistics in Psychology will guide any student new to statistics effortlessly through the process of test selection and analysis. (Read Jeremy Miles's blog and access other useful information on statistics now at www.jeremymiles.co.uk)
This practical, conceptual introduction to statistical analysis by award-winning teacher Andrew N. Christopher uses published research with inherently interesting social sciences content to help students make clear connections between statistics and real life. Using a friendly, easy-to-understand presentation, Christopher walks students through the hand calculations of key statistical tools and provides step-by-step instructions on how to run the appropriate analyses for each type of statistic in SPSS and how to interpret the output. With the premise that a conceptual grasp of statistical techniques is critical for students to truly understand why they are doing what they are doing, the author avoids overly formulaic jargon and instead focuses on when and how to use statistical techniques appropriately.
EBOOK: Interpreting Statistical Findings: A Guide For Health Professionals And Students
Writing about Quantitative Research in Applied Linguistics
Using and Interpreting Statistics
Data Analysis
Learning Statistics with R
An Introduction

Modern statistical software provides the ability to compute statistics in a timely, orderly fashion. This introductory statistics textbook presents clear explanations of basic statistical concepts and introduces students to the IBM SPSS program to demonstrate how to conduct statistical analyses via the popular point-and-click and the "syntax file" methods. The focal point is to show students how easy it is to analyse data using SPSS once they have learned the basics. Provides clear explanation of basic statistical concepts that provides the foundation for the beginner students statistical journey. Introduces the SPSS software program. Gives clear explanation of the purpose of specific statistical procedures (e.g., frequency distributions, measures of central tendencies, measures of variability, etc.). Avoids the conventional cookbook approach that contributes very little to students understanding of the rationale of how the correct results were obtained. The advantage of learning the IBM SPSS software package at the introductory class level is that most social sciences students will employ this program in their later years of study. This is because SPSS is one of the most popular of the many statistical packages currently available. Learning how to use this program at the very start not only familiarizes students with the utility of this program but also provides them with the experience to employ the program to conduct more complex analyses in their later years.
Now in its Fourth Edition, An Introduction to Medical Statistics continues to be a 'must-have' textbook for anyone who needs a clear logical guide to the subject. Written in an easy-to-understand style and packed with real life examples, the text clearly explains the statistical principles used in the medical literature. Taking readers through the common statistical methods seen in published research and guidelines, the text focuses on how to interpret and analyse statistics for clinical practice. Using extracts from real studies, the author illustrates how data can be employed correctly and incorrectly in medical research helping readers to evaluate the statistics they encounter and appropriately implement findings in clinical practice. End of chapter exercises, case studies and multiple choice questions help readers to apply their learning and develop their own interpretative skills. This thoroughly revised edition includes new chapters on meta-analysis, missing data, and survival analysis.
Using an engaging how-to approach that draws from scholarship, real-life, and popular culture, this textbook offers students practical reasons why they should care about research methods and a guide to actually conducting research themselves. Examining quantitative, qualitative, and critical research methods, this new edition helps undergraduate students better grasp the theoretical and practical uses of method by clearly illustrating practical applications. The book features all the main research traditions within communication including online methods, and provides level-appropriate applications of the methods through theoretical and practical examples and exercises, including new sample student papers that demonstrate research methods in action.
This book is aimed at those studying and working in the field of health care, including nurses and the professions allied to medicine, who have little prior knowledge of statistics but for whom critical review of research is an essential skill. The book will provide support for those conducting literature-based projects which require the student to review evidence generated through empirical investigations. Evidence-based projects or assignments have, for several years formed the basis of a final year independent study for most honours degrees, and increasing numbers of masters programmes, in health care. Working from practical examples, exercises and illustrations, explanations will be given in (relatively) straightforward conceptual terms. This book is intended as a practical guide and reference book. Bullet points and illustrations will be used wherever possible, and dense text avoided. A detailed glossary of statistical concepts and terms will be provided as an additional resource for learning. The emphasis throughout will be to enable the student to transfer their learning to the research reports they are reading. Using fundamental criteria and aided by a list of key questions, students will be able to make an informed judgement about the quality of the research findings. The examples used will be based closely on actual research data, but essential details will be changed. This approach is intended to avoid problems of copyright and overcome the ethical problem of challenging published research in a forum where there is no right of the authors to reply. As follow-up exercises, students will be directed to references where they can test out their learning on real examples, guided by key questions.
Understanding and Using Statistics in Psychology
A Conceptual Overview
Statistics for Health Care Professionals
Basics in Nursing Research and Biostatistics
The Cambridge Dictionary of Statistics
Using R for Biostatistics

With increasing pressure on academics and graduate students to publish in peer reviewed journals, this book offers a much-needed guide to writing about and publishing quantitative research in applied linguistics. With annotated examples and useful resources, this book will be indispensable to graduate students and seasoned researchers alike.
Is there a link between people's heart rate and blood pressure? Does the lead in petrol fumes affect the growth of roadside plants? The ability to expertly analyse statistical data is a crucial skill in the biological sciences – it is fundamental to fully understanding what your experiments are actually telling you and so being able to answer your research questions. Statistical and Data Handling Skills in Biology gives you everything you need to understand and use statistical tests within your studies and future independent research. Written in a straight-forward and easy to understand style it presents all of the tests you will need throughout your studies, and shows you how to select the right tests to get the most out of your experiments. All of this is done in the context of biological examples so you can see just how relevant a skill this is, and how becoming fully proficient will make you a more rounded scientist. This 4th edition has been thoroughly updated throughout and now includes detailed coverage of the free statistical package R studio and a new chapter on how to write about and present statistics in papers, theses and reports. The first chapter has also been revised to introduce students to the need for and ideas behind statistical analysis. Features · Clear explanation with step by step detail of how to carry out a wide range of statistical analyses will help you to quickly gain understanding and confidence in this essential area. · Useful decision charts will help you to select the right statistical test and gain confidence in answering your research questions. · Real world examples in each chapter will help you to develop an applied understanding of the full range of statistical techniques · Self-assessment problems scenarios at the end of each chapter enable you to practice applying your understanding of a technique, thereby improving your confidence in using numbers. Guided answers allow you to check your understanding. Statistical and Data Handling Skills in Biology 4th edition is ideal for any biomedic or environmental scientist getting to grips with statistical analysis for use in class on as part of independent study.
Learn how to expand your interpretation and application of statistical methods used in nursing and health sciences research articles with Statistics for Nursing Research: A Workbook for Evidence-Based Practice, 3rd Edition. Perfect for those seeking to more effectively build an evidence-based practice, this collection of practical exercises guides you in how to critically appraise sampling and measurement techniques, evaluate results, and conduct a power analysis for a study. Written by nursing research and statistics experts Drs. Susan K. Grove and Daisha Cipher, this is the only statistics workbook for nurses to include research examples from both nursing and the broader health sciences literature. This new third edition features new research article excerpts and examples, an enhanced focused on statistical methods commonly used in DNP projects, new examples from quality improvement projects, new content on paired samples analysis, expanded coverage of calculating descriptive statistics, an online Research Article Library, and more! Whether used in undergraduate, master's, or doctoral education or in clinical practice, this workbook is an indispensable resource for any nursing student or practicing nurse needing to interpret or apply statistical data. Comprehensive coverage and extensive exercise practice address all common techniques of sampling, measurement, and statistical analysis that you are likely to see in nursing and health sciences literature. Literature-based approach uses key excerpts from published studies to reinforce learning through practical application. 36 sampling, measurement, and statistical analysis exercises provide a practical review of both basic and advanced statistical techniques. Study Questions in each chapter help you apply concepts to an actual literature appraisal. Questions to Be Graded sections in each chapter help assess your mastery of key statistical techniques. Consistent format for all chapters enhances learning and enables quick review. NEW! Updated research articles and examples are incorporated throughout to ensure currency and relevance to practice. NEW! Enhanced focus on statistical methods commonly used in DNP projects and expanded coverage on calculating descriptive statistics broadens your exposure to the statistical methods you will encounter in evidence-based practice projects and in the literature. NEW! Examples from quality improvement projects provide a solid foundation for meaningful, high-quality evidence-based practice projects. NEW! Research Article Library on Evolve provides full-text access to key articles used in the book. NEW! Content on paired samples analysis familiarizes you with this type of research analysis. NEW! Many figures added to serveral exercises to help you understand statistical concepts.
This book introduces the open source R software language that can be implemented in biostatistics for data organization, statistical analysis, and graphical presentation. In the years since the authors' 2014 work Introduction to Data Analysis and Graphical Presentation in Biostatistics with R, the R user community has grown exponentially and the R language has increased in maturity and functionality. This updated volume expands upon skill-sets useful for students and practitioners in the biological sciences by describing how to work with data in an efficient manner, how to engage in meaningful statistical analyses from multiple perspectives, and how to generate high-quality graphics for professional publication of their research. A common theme for research in the diverse biological sciences is that decision-making depends on the empirical use of data. Beginning with a focus on data from a parametric perspective, the authors address topics such as Student t-Tests for independent samples and matched pairs; oneway and twoway analyses of variance; and correlation and linear regression. The authors also demonstrate the importance of a nonparametric perspective for quality assurance through chapters on the Mann-Whitney U Test, Wilcoxon Matched-Pairs Signed-Ranks test, Kruskal-Wallis H-Test for Oneway Analysis of Variance, and the Friedman Twoway Analysis of Variance. To address the element of data presentation, the book also provides an extensive review of the many graphical functions available with R. There are now perhaps more than 15,000 external packages available to the R community. The authors place special emphasis on graphics using the lattice package and the ggplot2 package, as well as less common, but equally useful, figures such as bean plots, strip charts, and violin plots. A robust package of supplementary material, as well as an introduction of the development of both R and the discipline of biostatistics, makes this ideal for novice learners as well as more experienced practitioners.
Understanding and Applying Research Design
Psychology Statistics For Dummies
Using Statistics to Make Educational Decisions
Writing Results Sections and Creating Tables and Figures
Beyond the Numbers
Understanding Statistics and Experimental Design

This book focuses on extraction of pertinent information from statistical test outputs, in order to write result sections and/or accompanying tables and/or figures. The book is divided into two encompassing sections: Part I – Basic Statistical Tests and Part II – Advanced Statistical Tests. Part I includes 9 basic statistical tests, and Part II includes 7 advanced statistical tests. Each chapter provides the name of a basic or advanced statistical test, a brief description, examples of when to use each, a sample scenario, and a sample results section write-up. Depending on the test and need, most chapters provide a table and/or figure to accompany the write-up. The purpose of the book is to provide researchers with a reference manual for writing results sections and tables/figures in scholarly works. The authors fill a gap in research support manuals by focusing on sample write-ups and tables/figures for given statistical tests. The book assists researchers by eliminating the need to comb through numerous publications to determine necessary information to report, as well as correct APA format to use, at the close of analyses.
Eric Corty's engaging textbook is exceptionally well suited for behavioral science students studying statistical practice in their field for the first time. An award-winning master teacher, Corty speaks to students in their language, with an approachable voice that conveys the basics of collecting and understanding statistical data step by step. Examples come from the behavioral and social sciences, as well as from recognizable aspects of everyday life to help students see the relevance of what they are studying.
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!
This completely rewritten classic text features many new examples, insights and topics including mediational, categorical, and multilevel models. Substantially reorganized, this edition provides a briefer, more streamlined examination of data analysis. Noted for its model-comparison approach and unified framework based on the general linear model, the book provides readers with a greater understanding of a variety of statistical procedures. This consistent framework, including consistent vocabulary and notation, is used throughout to develop fewer but more powerful model building techniques. The authors show how all analysis of variance and multiple regression can be accomplished within this framework. The model-comparison approach provides several benefits: It strengthens the intuitive understanding of the material thereby increasing the ability to successfully analyze data in the future It provides more control in the analysis of data so that readers can apply the techniques to a broader spectrum of questions It reduces the number of statistical techniques that must be memorized It teaches readers how to become data analysts instead of statisticians. The book opens with an overview of data analysis. All the necessary concepts for statistical inference used throughout the book are introduced in Chapters 2 through 4. The remainder of the book builds on these models. Chapters 5 - 7 focus on regression analysis, followed by analysis of variance (ANOVA), mediational analyses, non-independent or correlated errors, including multilevel modeling, and outliers and error violations. The book is appreciated by all for its detailed treatment of ANOVA, multiple regression, nonindependent observations, interactive and nonlinear models of data, and its guidance for treating outliers and other problematic aspects of data analysis. Intended for advanced undergraduate or graduate courses on data analysis, statistics, and/or quantitative methods taught in psychology, education, or other behavioral and social science departments, this book also appeals to researchers who analyze data. A protected website featuring additional examples and problems with data sets, lecture notes, PowerPoint presentations, and class-tested exam questions is available to adopters. This material uses SAS but can easily be adapted to other programs. A working knowledge of basic algebra and any multiple regression program is assumed.
A Workbook for Evidence-Based Practice
A Theoretical and Practical Approach
Confusing Concepts Clarified
A Model Comparison Approach, Second Edition
Understanding Communication Research Methods
The SAGE Encyclopedia of Communication Research Methods

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

Statistics for Health Care Professionals is an accessible guide to understanding statistics within health care practice. Focusing on quantitative approaches to investigating problems, the book introduces the basic rules and principles of statistics. Challenging the notion that statistics are often incomprehensible and complex to use, the authors begin by presenting a `how to' section explaining how specific statistical tests can be performed. They also help readers to understand the language of statistics, which is often a stumbling block for those coming to the subject for the first time. The reader is taught how to calculate statistics by hand as well as being introduced to computer packages to make life easier, and then how to analyse these results. As the results of health care research are so integral to decision-making and developing new practice within the profession, the book encourages the reader to think critically about data analysis and research design, and how these can impact upon evidence based practice. This critical stance is also crucial in the assessment of the many reports and documents issued within the health industry. Statistics for Health Care Professionals includes practical examples of statistical techniques throughout, and the exercises within and at the end of each chapter help readers to learn and to develop proficiency. There is also a glossary at the end of the book for quick and easy referencing. This book is essential reading for those coming to statistics for the first time within a health care setting.

Provides a step-by-step approach to statistical procedures to analyze data and conduct research, with detailed sections in each chapter explaining SPSS® and Excel® applications This book identifies connections between statistical applications and research design using cases, examples, and discussion of specific topics from the social and health sciences. Researched and class-tested to ensure an accessible presentation, the book combines clear, step-by-step explanations for both the novice and professional alike to understand the fundamental statistical practices for organizing, analyzing, and drawing conclusions from research data in their field. The book begins with an introduction to descriptive and inferential statistics and then acquaints readers with important features of statistical applications (SPSS and Excel) that support statistical analysis and decision making. Subsequent chapters treat the procedures commonly employed when working with data across various fields of social science research. Individual chapters are devoted to specific statistical procedures, each ending with lab application exercises that pose research questions, examine the questions through their application in SPSS and Excel, and conclude with a brief research report that outlines key findings drawn from the results. Real-world examples and data from social and health sciences research are used throughout the book, allowing readers to reinforce their comprehension of the material. Using Statistics in the Social and Health Sciences with SPSS® and Excel® includes: Use of straightforward procedures and examples that help students focus on understanding of analysis and interpretation of findings Inclusion of a data lab section in each chapter that provides relevant, clear examples Introduction to advanced statistical procedures in chapter sections (e.g., regression diagnostics) and separate chapters (e.g., multiple linear regression) for greater relevance to real-world research needs Emphasizing applied statistical analyses, this book can serve as the primary text in undergraduate and graduate university courses within departments of sociology, psychology, urban studies, health sciences, and public health, as well as other related departments. It will also be useful to statistics practitioners through extended sections using SPSS® and Excel® for analyzing data.

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