DESCRIPTION

Fundamentals of Statistical Reasoning in Education 4th Edition, like the first three editions, is written largely with students of education in mind. Accordingly, Theodore Coladarci and Casey D. Cobb have drawn primarily on examples and issues found in school settings, such as those having to do with instruction, learning, motivation, and assessment. The emphasis on educational applications notwithstanding, the authors are confident that readers will find Fundamentals of Statistical Reasoning in Education 4th Edition of general relevance to other disciplines in the behavioral sciences as well.

The 4th Edition of Fundamentals is still designed as a “one semester” book. The authors intentionally sidestep topics that few introductory courses cover (e.g., factorial analysis of variance, repeated measures analysis of variance, multiple regression). At the same time, effect size and confidence intervals are incorporated throughout, which today are regarded as essential to good statistical practice.

ABOUT THE AUTHOR

Theodore Coladarci is Professor of Educational Psychology at the University of Maine. He has published extensively, including Elementary Descriptive Statistics, which he co-authored with A.P. Coladarci.
• Guided by instructor feedback, $\hat{Y}$ instead of $Y_0$ is now used as the symbol for the predicted value of $Y$ in our treatment of regression analysis. Further, the meaning, and importance, of residuals in regression analysis is explicitly addressed.

• SPSS is no longer included in the text, but sample output is now provided with commentary on the supporting website, all within the context of the statistical procedures and tests covered in the text. For the student who has access to SPSS and wishes to replicate the results (or simply explore this software further), a link to data on which our applications are based is provided.

• All chapters have benefited from careful editing, along with the occasional clarification or elaboration, that one should expect of a new edition.

• Incorporates a case study approach, which models the process of data analysis, conceptualizes the learning of challenging statistical concepts, and addresses one of the more controversial policy issues in education today, high stakes testing.

• Includes a focus on conceptual development; frequently reinforcing concepts/principles/procedures in earlier chapters and foreshadowing concepts/principles/procedures to come.

• A clear, step-by-step illustration of mathematical operations.

• Integrates statistical hypothesis testing with effect, size and confidence intervals throughout.

• Examples, problems, and applications largely focus on the discipline of education.