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Nota di contenuto	Meta Analysis A Guide to Calibrating and Combining Statistical Evidence; Contents; Preface; Part I The Methods; 1 What can the reader expect from this book?; 1.1 A calibration scale for evidence; 1.1.1 T - values and p-values; 1.1.2 How generally applicable is the calibration scale?; 1.1.3 Combining evidence; 1.2 The efficacy of glass ionomer versus resin sealants for prevention of caries; 1.2.1 The data; 1.2.2 Analysis for individual studies; 1.2.3 Combining the evidence: fixed effects model; 1.2.4 Combining the evidence: random effects model; 1.3 Measures of effect size for two populations 1.4 Summary 2 Independent measurements with known precision; 2.1 Evidence for one-sided alternatives; 2.2 Evidence for two-sided alternatives; 2.3 Examples; 2.3.1 Filling containers; 2.3.2 Stability of blood samples; 2.3.3 Blood alcohol testing; 3 Independent measurements with unknown precision; 3.1 Effects and standardized

effects; 3.2 Paired comparisons; 3.3 Examples; 3.3.1 Daily energy intake compared to a fixed level; 3.3.2 Darwin's data on Zea mays; 4 Comparing treatment to control; 4.1 Equal unknown precision; 4.2 Differing unknown precision; 4.3 Examples
4.3.1 Drop in systolic blood pressure; 4.3.2 Effect of psychotherapy on hospital length of stay; 5 Comparing K treatments; 5.1 Methodology; 5.2 Examples; 5.2.1 Characteristics of antibiotics; 5.2.2 Red cell folate levels; 6 Evaluating risks; 6.1 Methodology; 6.2 Examples; 6.2.1 Ultrasound and left-handedness; 6.2.2 Treatment of recurrent urinary tract infections; 7 Comparing risks; 7.1 Methodology; 7.2 Examples; 7.2.1 Treatment of recurrent urinary tract infections; 7.2.2 Diuretics in pregnancy and risk of pre-eclampsia; 8 Evaluating Poisson rates; 8.1 Methodology; 8.2 Example
8.2.1 Deaths by horse-kicks; 9 Comparing Poisson rates; 9.1 Methodology; 9.1.1 Unconditional evidence; 9.1.2 Conditional evidence; 9.2 Example; 9.2.1 Vaccination for the prevention of tuberculosis; 10 Goodness-of-fit testing; 10.1 Methodology; 10.2 Example; 10.2.1 Bellbirds arriving to feed nestlings; 11 Evidence for heterogeneity of effects and transformed effects; 11.1 Methodology; 11.1.1 Fixed effects; 11.1.2 Random effects; 11.2 Examples; 11.2.1 Deaths by horse-kicks; 11.2.2 Drop in systolic blood pressure; 11.2.3 Effect of psychotherapy on hospital length of stay; 11.2.4 Diuretics in pregnancy and risk of pre-eclampsia; 12 Combining evidence: fixed standardized effects model; 12.1 Methodology; 12.2 Examples; 12.2.1 Deaths by horse-kicks; 12.2.2 Drop in systolic blood pressure; 13 Combining evidence: random standardized effects model; 13.1 Methodology; 13.2 Example; 13.2.1 Diuretics in pregnancy and risk of pre-eclampsia; 14 Meta-regression; 14.1 Methodology; 14.2 Commonly encountered situations; 14.2.1 Standardized difference of means; 14.2.2 Difference in risk (two binomial proportions); 14.2.3 Log relative risk (two Poisson rates); 14.3 Examples
14.3.1 Effect of open education on student creativity

Sommario/riassunto

Meta Analysis: A Guide to Calibrating and Combining Statistical Evidence acts as a source of basic methods for scientists wanting to combine evidence from different experiments. The authors aim to promote a deeper understanding of the notion of statistical evidence. The book is comprised of two parts - The Handbook, and The Theory. The Handbook is a guide for combining and interpreting experimental evidence to solve standard statistical problems. This section allows someone with a rudimentary knowledge in general statistics to apply the methods. The Theory
