<u>sportsci.org</u>

SPORTSCIENCE

Perspectives / Research Resources

Commentary on A Spreadsheet for Combining Outcomes

Glen E Fincher

Sportscience 10, 67, 2006 (sportsci.org/2006/gef.htm) Sport Sciences, Ashland University, Ashland, Ohio 44805. <u>Email.</u> <u>Reprint pdf</u> · <u>Reprint doc</u>

Will Hopkins continues his tradition of developing user-friendly data analysis tools for non-experts with a spreadsheet that avoids the problems of bias, confounding, and imprecision that may accompany any statistical analysis that fails to account for independent groups defined by subject and/or design characteristics. This is accomplished by combining the outcomes from separate analyses of each group. Hopkins demonstrates that this procedure does not result in loss of precision when compared to a single, full analysis.

Although the linear modeling procedures in statistical packages provide an alternate method of analysis, the cost and degree of technical and statistical expertise required may be prohibitive to non-experts. This new spreadsheet calculates confidence intervals while allowing users to input various types of outcome statistics: means, percent and factor effects, relative rates

Back to article/homepage

(risk, odds, and hazard ratios), and correlation coefficients. A unique feature of the spreadsheet is its ability to present magnitude-based inferences based on the approach of Batterham and Hopkins (2005), as well as a summary qualitative outcome (Hopkins, 2006).

This spreadsheet is a useful data analysis tool for sport and exercise science researchers. It is user-friendly and provides unique summary information that typical statistical packages do not provide.

Batterham AM, Hopkins WG (2005). <u>Making mean-</u> <u>ingful inferences about magnitudes</u>. Sportscience 9, 6-13

Hopkins WG (2006). <u>Spreadsheets for analysis of</u> <u>controlled trials, with adjustment for a subject</u> <u>characteristic</u>. Sportscience 10, 46-50

Published Dec 2006. ©2006