

**REPCOP: Repeated-measures planned
comparisons and orthogonal
polynomials**

DAVID J. WEISS

California State University, Los Angeles, California 90032

Keppel (1973) argues effectively that individualized error terms are appropriate for planned comparisons, including trend tests, in repeated-measures analysis of variance designs. Following the general principle that the correct error term for a source, A, is its interaction with subjects, he shows how to partition the A by S interaction into separate $A_{\text{comparison}}$ by S components. Each comparison has its own error term. REPCOP is a BASIC PLUS program that produces an F table using Keppel's analysis.

Input to the program consists of the (mean) scores for each subject at each level of A. The program will generate the standard orthogonal polynomial coefficients

for trend tests. For other comparisons, coefficients may be input from the terminal. Coefficients would also be input for trend tests with unequal spacing; these coefficients may be obtained from ORPOCO (Weiss, 1980).

Limitations. The program is less than 200 lines and does not require large amounts of core. It should run on any interactive computer with a BASIC PLUS compiler.

Availability. A listing of the program may be obtained without charge from David J. Weiss, Department of Psychology, California State University, Los Angeles, California 90032.

REFERENCES

- KEPPEL, G. *Design and analysis: A researcher's handbook*. Englewood Cliffs, N.J.: Prentice-Hall, 1973.
WEISS, D. J. ORPOCO: Orthogonal polynomial coefficients. *Behavior Research Methods & Instrumentation*, 1980, 12, 635.

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