

F tests - ANOVA: Repeated measures, within-between interaction

Analysis: A priori: Compute required sample size

Input: Effect size f = 0.105

α err prob = 0.05

Power ($1-\beta$ err prob) = 0.9

Number of groups = 2

Number of measurements = 4

Corr among rep measures = 0.5

Nonsphericity correction ϵ = 1

Output: Noncentrality parameter λ = 14.2884000

Critical F = 2.6234807

Numerator df = 3.0000000

Denominator df = 480

Total sample size = 162

Actual power = 0.9000219