

Relative Efficiency for the Noodle experiment

$$g = 3 \quad r = 7 \quad MS_B = 17.12 \quad MSE = D.113$$

$$v_{RCB} = 12 \quad v_{CR} = 18$$

$$\frac{\sigma_{CR}^2}{\sigma_{RCB}^2} = \frac{6 \cdot 17.12 + (2 + 2.6) \cdot D.113}{6 + 2 + 6.7} = \frac{104.3}{20} = 5.2$$

$$RE = \frac{(v_{RCB} + 1)(v_{CR} + 3)}{(v_{CR} + 2)(v_{RCB} + 1)} \frac{\sigma_{CR}^2}{\sigma_{RCB}^2} = \frac{13 \cdot 21}{15 \cdot 19} \cdot 5.2 = 113$$

$$E_{CR} = 2.94 (856.7) = 49.3$$

Other topics: Missing data, random blocks