

Technical Paper 20

Sample size determination

- A. Method of determining an adequate sample size for a t-test.
- B. This method is applicable to interval and ratio scale data.
- C. Iterative process
- D. Assumptions same as t-test
 1. Random samples.
 2. Independent samples.
 3. Normally distributed populations.
 4. Equal variances.

$$n \geq \frac{2s_p^2}{\delta^2} (t_{\alpha, v} + t_{\beta(1), v})^2$$

If one of the sample sizes is constrained use this formula (in conjunction with the one above) to determine the size of the unconstrained sample.

$$n_2 = \frac{n_1 * n}{2n_1 - n}$$