

$$t = \frac{m - \mu}{SE}$$

$$t = \frac{n_{d.f} (\bar{x} - \mu_{d.f})}{SE_{d.f}}$$

$$t = \frac{n_1 - n_2 \cdot (\bar{x}_1 - \bar{x}_2)}{SE_{pooled}}$$

$$S_{pooled}^2 = \frac{df_1}{df_T} \cdot S_1^2 + \frac{df_2}{df_T} \cdot S_2^2$$

$$SD_{pooled} = \sqrt{\frac{df_1}{df_T} \cdot SD_1^2 + \frac{df_2}{df_T} \cdot SD_2^2}$$

$$d = \frac{m_1 - m_2}{SD_{pooled}}$$

$$SE = \sqrt{\frac{SD^2}{n}}$$

$$SE_{pooled} = \sqrt{\frac{SD_o^2}{n_1} + \frac{SD_p^2}{n_2}}$$

S.difference

	$G_{1000,1}$	$G_{1000,2}$
N	20	40
s ²	2.4	2.8
m	12	11.1
	$\frac{1}{2}$	$\frac{1}{2}$

$$SD_P^2 = \frac{19}{58} \cdot 2.4 + \frac{39}{58} \cdot 2.8$$

$$= .33 \cdot 2.4 + .67 \cdot 2.8$$

$$= 2.67$$

$$SD_P = 1.63$$

$$SE_P = \sqrt{\frac{2.67}{20} + \frac{2.67}{40}} = .26$$

$$t = \frac{12 - 11.1}{.26} = 3.46$$

$$d = \frac{12 - 11.1}{1.63} = .55$$

$$t(58)_{0.05} = \pm 7.004$$



$$t(58) = 3.46, p < .05, d = .55$$