Appendix 16

The T-test Calculation of the Mean of the Simple Present Tense Mastery of the Seventh Grade Students of MTs Negeri Kudus in the Academic Year 2011/2012 between those who are Taught by Using iFlash and those who are Taught by Using PowerPoint.

$N_1 = 30$ $N_2 = 30$

$\bar{x}_1 = 76.5$ $\bar{x}_2 = 68$

$SD_1 = 7.78$ $SD_2 = 7.35$

Formula to calculate t-observation (t_o):

$$t_o = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\sigma^2\left[\frac{1}{N1} + \frac{1}{N2}\right]}}$$

$$\sigma^2 = \frac{(N_1 - 1)SD_1{}^2 + (N_2 - 1)SD_2{}^2}{N_1 + N_2 - 2}$$

$$= \frac{(30-1) \times 7.78^2 + (30-1) \times 7.35^2}{30+30-2}$$

$$= \frac{(30-1) \times 7.78^2 + (30-1) \times 7.35^2}{58}$$

$$= \frac{29 \times 60.5284 + 29 \times 54.0225}{58}$$

$$= \frac{1755.3236 + 1566.6525}{58}$$

$$= \frac{3321.9761}{58}$$

$$= 57.275$$

After finding the variant (σ^2) = 57.275 the t_o can be calculated as follows:

$$t_o = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\sigma^2\left[\frac{1}{N1} + \frac{1}{N2}\right]}}$$

$$= \frac{76.5-68}{\sqrt{57.275\ (\frac{1}{30}+\frac{1}{30})}}$$

$$= \frac{8.5}{\sqrt{57.275\ (\frac{2}{30})}}$$

$$= \frac{8.5}{\sqrt{57.275 \times 0.066}}$$

$$= \frac{8.5}{\sqrt{3.81833}}$$

$$= \frac{8.5}{1.954}$$

= 4. 35