

### ANALISIS DATA STATISTIK

**Nilai Hasil *Posttest* kelas VII MTs Al-Qalam Teppo Kab. Majene  
Kelas Eksperimen (Varibel X) dan Kelas Kontrol (Variabel Y)**

No.	X	Y	X <sup>2</sup>	Y <sup>2</sup>	X.Y
1.	95	90	9.025	8.100	8.550
2.	80	70	6.400	4.900	5.600
3.	100	80	10.000	6.400	8000
4.	90	85	8.100	7.225	7.650
5.	100	80	10.000	6.400	8.000
6.	75	70	5.625	4.900	5.250
7.	75	70	5.625	4.900	5.250
8.	85	85	7.225	7.225	7.225
9.	85	85	7.225	7.225	7.225
10.	100	70	10.000	4.900	7.000
11.	95	80	9.025	6.400	7.600
12.	80	70	6.400	4.900	5.600
13.	80	90	6.400	8.100	7.200
14.	95	80	9.025	6.400	7.600
15.	80	85	6.400	7.225	6.800
16.	90	85	8.100	7.225	7.650
17.	85	70	7.225	4.900	5.950
18.	85	80	7.225	6.400	6.800
19.	90	85	8.100	7.225	7.650
20.	80	85	6.400	7.225	6.800
21.	95	80	9.025	6.400	7.600
<b>JUMLAH</b>	<b><math>\Sigma(x)</math> 1840</b>	<b><math>\Sigma(y)</math> 1675</b>	<b><math>\Sigma(x)^2</math>162550</b>	<b><math>\Sigma(y)^2</math>134575</b>	<b><math>\Sigma(x.y)</math>14700</b>

- a. Nilai rata-rata hasil belajar kelompok eksperimen X

$$Mx = \frac{\sum x}{N}$$

$$Mx = \frac{1840}{21}$$

$$Mx = 87,619$$

- b. Nilai rata-rata hasil belajar kelompok kontrol Y

$$My = \frac{\sum y}{N}$$

$$My = \frac{1675}{21}$$

$$My = 79,761$$

- c. Nilai Standar Deviasi Kuadrat kelompok eksperimen X

$$SDx^2 = \frac{\sum x^2}{N} - Mx^2$$

$$SDx^2 = \frac{162550}{21} - (87,619)^2$$

$$SDx^2 = 7740,476 - 7676,913$$

$$SDx^2 = 63,563$$

d. Nilai Standar Deviasi Kuadrat Kelompok Kontrol Y

$$SDy^2 = \frac{\sum y^2}{N} - My^2$$

$$\begin{aligned} SDy^2 &= \frac{134575}{21} - (79,761)^2 \\ &= 6408,333 - 6361,817 \\ &= 46,516 \end{aligned}$$

e. Nilai Standar Deviasi rata-rata Kuadrat Kelompok Eksperimen X

$$SD^2Mx = \frac{SDx^2}{N - 1}$$

$$SD^2Mx = \frac{63,563}{21 - 1}$$

$$SD^2Mx = \frac{63,563}{20}$$

$$SD^2Mx = 3,17815$$

f. Nilai Standar Deviasi rata-rata Kuadrat Kelompok Kontrol Y

$$SD^2My = \frac{SDy^2}{N - 1}$$

$$SD^2My = \frac{46,516}{20 - 1}$$

$$SD^2My = \frac{46,516}{20}$$

$$SD^2My = 2,32565$$

g. Nilai  $SD_{bm}$

$$SD_{bm} = \sqrt{SD^2Mx + SD^2My}$$

$$SD_{bm} = \sqrt{3,17815 + 2,32565}$$

$$SD_{bm} = \sqrt{5,5038}$$

$$SD_{bm} = 2,34601$$

Setelah mendapatkan hasil perhitungan diatas maka selanjutnya dimasukkan dalam rumus t-test dan mencari interpretasinya untuk menguji hipotesis.

$$t - test = \frac{Mx - My}{SD_{bm}}$$

$$d.b = (Nx + Ny) - 2$$

$$t - test = \frac{87,619 - 79,761}{2,34601}$$

$$d.b = (21 + 21) - 2$$

$$d.b = 40$$

$$t - test = \frac{7,858}{2,34601}$$

$$= 3,34951$$

