Lampiran 11

**ANALISIS DATA STATISTIK**

**Nilai Hasil *Posttest* kelas XI IPA SMAN. 2 Libureng Kabupaten Bone**

 **Kelas Eksperimen (Varibel X) dan Kelas Kontrol (Variabel Y)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **X** | **Y** | **X2** | **Y2** | **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 |
| **JUMLAH** | **∑(x) 1840** | **∑(y) 1675** | **∑(x)2162550** | **∑(y)2134575** | **∑(x.y)14700** |

1. Nilai rata-rata hasil belajar kelompok eksperimen X

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

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

$$Mx=87,619$$

1. Nilai rata-rata hasil belajar kelompok kontrol Y

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

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

$$My=79,761$$

1. Nilai Standar Deviasi Kuadrat kelompok eksperimen X

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

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

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

$$SDx^{2}=63,563$$

1. Nilai Standar Deviasi Kuadrat Kelompok Kontrol Y

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

$$SDy^{2}=\frac{134575}{21}-(79,761)^{2}$$

$=6408,333-6361,817$

= $46,516$

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

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

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

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

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

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

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

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

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

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

1. Nilai SDbm

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

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

$$SD\_{bm}=\sqrt{5,5038}$$

$$SD\_{bm}=2,34601$$

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

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

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

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

$$=3,34951$$

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

$$d.b=\left(21+21\right)-2$$

$$d.b=40$$