**ANALISIS DATA STATISTIK**

**Nilai Hasil *Pretest* dan *Posttest* kelas VIII SMP Negeri 3 Pujananting**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **X** | **f** | **Fx** | **Fx2** | **Y** | **f** | **Fy** | **Fy2** |
| 80 | 5 | 400 | 32000 | 70 | 12 | 840 | 58800 |
| 85 | 5 | 425 | 36125 | 75 | 5 | 375 | 28125 |
| 90 | 4 | 360 | 32400 | 80 | 3 | 240 | 19200 |
| 95 | 8 | 780 | 72200 | 85 | 2 | 170 | 14450 |
|  | **22** | **1945** | **229600** |  | **22** | **1625** | **120575** |

1. Nilai rata-rata hasil belajar *posttest*

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

$=\frac{1945}{22}$

$= 88,40$

1. Nilai rata-rata hasil belajar *pretest*

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

$=\frac{1625}{22}$

$= 73,86$

1. Nilai standar deviasi kuadrat *posttest*

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

$=\frac{229600}{22}- (88,40)^{2}$

$=10436,36-7816,32$

$=2620$

1. Nilai standar deviasi kuadrat *pretest*

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

$=\frac{120575}{22}- (73,86)^{2}$

$=5480,68-5455,29$

$=2539$

1. Nilai standar deviasi rata-rata kuadrat *posttest*

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

$=\frac{2620}{22-1}$

$=\frac{2620}{21}$

$=12,47$

1. Nilai standar deviasi rata-rata kuadrat *pretest*

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

$=\frac{2539}{22-1}$

$=\frac{2539}{21}$

$=12,09$

1. Nilai SDbm

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

$=\sqrt{12,47+12,09}$

$=\sqrt{24,56}$

$=4,95580$

Setelah hasil perhitungan di atas selanjutnya gunakan rumus t-test :

$t=\frac{Mx-My}{SD\_{bm}}$ $d.b=\left(Nx+Ny\right)-2$

$=\frac{88,41-73,86}{4,95580}$ $=\left(22+22\right)-2$

$=\frac{14,55}{4,95580}$ $=42$

$=2,93595$