**Lampiran 19**

**DAFTAR NAMA SISWA KELAS V SD INPRES PERUMNAS**

**(Kelas Eksperimen dan Kontrol)**

|  |  |
| --- | --- |
| **Kelas Eksperimen** | **Kelas Kontrol** |
| **No.**  | **Nama Siswa** | **Nama Siswa** |
| 1 | Alif Riansyah | Muh. Tabinul Hasanul Basri |
| 2 | Ariel Wahyu Sutikna | Andi Muhammad Sahabuddin |
| 3 | Andi Dwi Putra Adiaksa | 1. M. Fauzi Ramadan
 |
| 4 | A. Muh. Ricky Saputra | Muh. Ilham Akbar |
| 5 | Dimas Aditya Azis | Adam Malik |
| 6 | Farel Alfatir Ali | 1. Egi Viandra Dwi Satya
 |
| 7 | Ince Reksa Kurniawan | Muh. Rafif R |
| 8 | Muh. Haydar Ali Yahya | Marseleo  |
| 9 | Muh. Izhar Al Haq | Muh. Ilham |
| 10 | Muh. Choirul Rijal | Fachry Fardiansyah |
| 11 | Miftah Fauzan | Ardiansyah  |
| 12 | Muh. Anargya Putra | M. Rifki Fauzan |
| 13 | M. Irfan Alfareza | Adryansyah P |
| 14 | M. Reza Pahlevy | Edwin Gumangan |
| 15 | Muh. Trial Fikri | Muh. AR Rayyan |
| 16 | Nabil Izza Aqila | Muh. Syafiq Arifin |
| 17 | Muhammad Raihan | Aifa Kabbip |
| 18 | Reza Maulana | Muh. Idris Al-Ghazali |
| 19 | Rubin Rianto | Rahmat Kurniawan |
| 20 | Sonda Al-Ghifari Bangsawan | Sri Resky Buana |
| 21 | Muh. Faturrahman Yasha | Inuf Ilma Khalidah |
| 22 | Muh. Farid Amiruddin | Bunga Siti Halimah |
| 23 | Andi Nuralyah | Rahel Azzahra |
| 24 | Aqilah Istiqamah | Hasyanur Fadilah |
| 25 | A. Reski Amalia Ismail | Dinda Aila Az’Zuhra |
| 26 | Dewi Artika Sari | Andini Lexandria |
| 27 | Elsya Mayauri | Anugrah Fitri. N |
| 28 | Fitria Ramadani | Najwa Ailya Faradiba |
| 29 | Nabila Eka Putri W | Zaenab Al Kubra |
| 30 | Nabila Putri | Rosrana Ayla . B |
| 31 | Nadya Nurfadilah Usman | Ega Dhela Zeva . A |
| 32 | St. Atiza | Nur Nadya Pratiwi |
| 33 | St. Nurhalisa | Nurul Salsa Nabila |
| 34 | Andi Nurfadillah | 1. Malifida Kharani
 |
| 35 | Naylah Qanita | Nabila Putri |
| 36 | Nurfadillah Zaskia Muliani | Muthia Syifa Asri |

**Lampiran 20**

**DAFTAR HASIL BELAJAR SISWA**

**(Data Nilai *Pretest*  Kelas Eksperimen dan Kontrol)**

|  |  |
| --- | --- |
| **Kelas Ekperimen** | **Kelas Kontrol** |
| **No.** | **Kode** | **Nilai *Pretest*** | **Kode** | **Nilai *Pretest*** |
| 1 | E-1 | 60 | K-1 | 15 |
| 2 | E-2 | 40 | K-2 | 60 |
| 3 | E-3 | 40 | K-3 | 65 |
| 4 | E-4 | 25 | K-4 | 20 |
| 5 | E-5 | 90 | K-5 | 50 |
| 6 | E-6 | 40 | K-6 | 30 |
| 7 | E-7 | 40 | K-7 | 70 |
| 8 | E-8 | 85 | K-8 | 50 |
| 9 | E-9 | 40 | K-9 | 55 |
| 10 | E-10 | 60 | K-10 | 80 |
| 11 | E-11 | 50 | K-11 | 35 |
| 12 | E-12 | 60 | K-12 | 60 |
| 13 | E-13 | 60 | K-13 | 65 |
| 14 | E-14 | 15 | K-14 | 30 |
| 15 | E-15 | 40 | K-15 | 65 |
| 16 | E-16 | 10 | K-16 | 65 |
| 17 | E-17 | 40 | K-17 | 50 |
| 18 | E-18 | 40 | K-18 | 30 |
| 19 | E-19 | 70 | K-19 | 60 |
| 20 | E-20 | 25 | K-20 | 50 |
| 21 | E-21 | 50 | K-21 | 80 |
| 22 | E-22 | 80 | K-22 | 30 |
| 23 | E-23 | 50 | K-23 | 30 |
| 24 | E-24 | 65 | K-24 | 70 |
| 25 | E-25 | 60 | K-25 | 50 |
| 26 | E-26 | 70 | K-26 | 60 |
| 27 | E-27 | 30 | K-27 | 60 |
| 28 | E-28 | 70 | K-28 | 50 |
| 29 | E-29 | 60 | K-29 | 50 |
| 30 | E-30 | 65 | K-30 | 45 |
| 31 | E-31 | 40 | K-31 | 80 |
| 32 | E-32 | 40 | K-32 | 70 |
| 33 | E-33 | 40 | K-33 | 45 |
| 34 | E-34 | 25 | K-34 | 55 |
| 35 | E-35 | 30 | K-35 | 55 |
| 36 | E-36 | 10 | K-36 | 40 |

1. ***Pretest* Kelas Eksperimen**

Nilai tertinggi = 90

Nilai terendah = 10

Jumlah sampel (n) = 36

Rentangan data (R) = Ntertinggi  - Nterendah = 90-10 = 80

Banyaknya kelas = 1 + 3,3 Log n = 1 + 3,3 Log 36 = 1 + 3,3 (1,56) = 6,148 = 6

Panjang Kelas = 80 : 6 = 13,3 = 13 (Dibulatkan)

**Tabel L.27.1** Perhitungan Nilai Awal (*Pretest*)Kelas Eskperimen

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nilai | *Fi* | $$Xi$$ | *Fi.xi* | *Xi* 2 | $$Fi.xi^{2}$$ |
| 10-22 | 3 | 16 | 48 | 256 | 768 |
| 23-35 | 5 | 29 | 145 | 841 | 4205 |
| 36-48 | 11 | 42 | 462 | 1764 | 19404 |
| 49-61 | 9 | 55 | 495 | 3025 | 27225 |
| 62-74 | 5 | 68 | 340 | 4624 | 23120 |
| 75-90 | 3 | 82.5 | 247,5 | 6806,25 | 20418,8 |
| Jumlah | 36 |   | 1737,5 | 17316,3 | 95140,8 |

1. **Nilai Rata-Rata/ Mean **

$\overbar{X}$ = $\frac{\sum\_{}^{}fixi}{\sum\_{}^{}fi}$

$\overbar{X}$ = $\frac{1737,5}{36}$

$\overbar{X}$ = 48,26

1. **Median**

Me = $b+ P\left(\frac{\frac{1}{2}n-F}{f}\right)$

Keterangan :

Me = median

b = batas bawah kelas median

P = panjang kelas

n = banyak data

F = jumlah frekuensi sebelum kelas median

f = frekuensi kelas median

Me = $48,5+ 13,3\left(\frac{\frac{1}{2}\left(36\right)-8}{11}\right)$

Me = $48,5+ 13,3\left(0,9\right)$

Me =$ 60,47$

1. **Modus**

Mo = $b+P\left(\frac{b1}{b1+b2}\right)$

Keterangan:

Mo = modus

b = batas bawah kelas interval dengan frekuensi terbanyak

P = panjang kelas

b­1 = frekuensi terbanyak dikurang frekuensi sebelumnya

b­2 = frekuensi terbanyak modus dikurang frekuensi setelahnya

Mo = $35,5+13,3\left(\frac{6}{6+2}\right)$

Mo = $35,5+13,3\left(0,75\right)$

Mo = $45,47$

1. **Varians**

S2 = $\frac{\sum\_{}^{}fixi^{2}- \frac{(\sum\_{}^{}fixi)^{2}}{\sum\_{}^{}fi}}{\sum\_{}^{}fi-1}$

S2 = $\frac{95140,8- \frac{(1737,5)^{2}}{36}}{36-1}$

S2 = $\frac{98922- 83858,5}{35}$

S2 = 322,34

1. **Standar deviasi**

S = $\sqrt{s^{2}}$

S = $\sqrt{322,34}$

S = 17,95

1. ***Pretest* Kelas Kontrol**

Nilai tertinggi = 80

Nilai terendah = 15

Jumlah sampel (n) = 36

Rentangan data (R) = Ntertinggi  - Nterendah = 80-15= 65

Banyaknya kelas = 1 + 3,3 Log n = 1 + 3,3 Log 36 = 1 + 3,3 (1,56) = 6,148 = 6

Panjang Kelas = $\frac{Rentang}{Jumlah Kelas Interval}$ = $\frac{65}{6}$ = 10,8 = 11

**Tabel L.27.3** Perhitungan Nilai Awal (*Pretest*) Kelas Kontrol

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nilai | *Fi* | $$Xi$$ | *Fi.xi* | *Xi* 2 | $$Fi.xi^{2}$$ |
| 15-26 | 2 | 20,5 | 41 | 420,25 | 840,5 |
| 27-38 | 6 | 32,5 | 195 | 1056,25 | 6337,5 |
| 39-50 | 10 | 44,5 | 445 | 1980,25 | 19802,5 |
| 51-62 | 8 | 56,5 | 452 | 3192,25 | 25538 |
| 63-74 | 7 | 68,5 | 479,5 | 4692,25 | 32845,8 |
| 75-80 | 3 | 77,5 | 232,5 | 6006,25 | 18018,8 |
| Jumlah | 36 |   | 1845 | 17347,5 | 103383 |

1. **Nilai Rata-Rata/ Mean **

$\overbar{X}$ = $\frac{\sum\_{}^{}fixi}{\sum\_{}^{}fi}$

$\overbar{X}$ = $\frac{1845}{36}$

$\overbar{X}$ = 51,25

1. **Median**

Me = $b+ P\left(\frac{\frac{1}{2}n-F}{f}\right)$

Keterangan :

Me = median

b = batas bawah kelas median

P = panjang kelas

n = banyak data

F = jumlah frekuensi sebelum kelas median

f = frekuensi kelas median

Me = $50,5+ 10,8\left(\frac{\frac{1}{2}\left(36\right)-8}{10}\right)$

Me = $50,5+ 10,8\left(1,0\right)$

Me =$ 61,3$

1. **Modus**

Mo = $b+P\left(\frac{b1}{b1+b2}\right)$

Keterangan:

Mo = modus

b = batas bawah kelas interval dengan frekuensi terbanyak

P = panjang kelas

b­1 = frekuensi terbanyak dikurang frekuensi sebelumnya

b­2 = frekuensi terbanyak modus dikurang frekuensi setelahnya

Mo = $38,5+10,8\left(\frac{4}{4+2}\right)$

Mo = $38,5+10,8\left(0,67\right)$

Mo = $45,73$

1. **Varians**

S2 = $\frac{\sum\_{}^{}fixi^{2}- \frac{(\sum\_{}^{}fixi)^{2}}{\sum\_{}^{}fi}}{\sum\_{}^{}fi-1}$

S2 = $\frac{103383- \frac{(1845)^{2}}{36}}{36-1}$

S2 = $\frac{99111- 94556,25}{35}$

S2 = 252,19

1. **Standar deviasi**

S = $\sqrt{s^{2}}$

S = $\sqrt{191,35}$

S $ $= 15,88

**Lampiran 21**

**UJI NORMALITAS**

**DATA NILAI AWAL (*PRETEST)* KELAS EKSPERIMEN DAN KONTROL**

1. **Data Nilai Awal (*Pretest)* Kelas Eksperimen**

**Tabel L.28.1** Distribusi Nilai Awal (*Pretest*) Kelas Eksperimen

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nilai | *Fo* | $$Fh$$ | *Fo – Fh* | *(Fo – Fh)* 2 | $$\frac{(Fo – Fh)^{2}}{Fh}$$ |
| 10-22 | 3 | 1,0 | 2,0 | 4,0 | 4.0 |
| 23-35 | 5 | 4,8 | 0,2 | 0,04 | 0.01 |
| 36-48 | 11 | 12,2 | -1,2 | 1,4 | 0.1 |
| 49-61 | 9 | 12,2 | -3,2 | 10,2 | 0.8 |
| 62-74 | 5 | 4,8 | 0,2 | 0,0 | 0.0 |
| 75-90 | 3 | 1,0 | 2,0 | 4,0 | 4.0 |
| Jumlah | 36 |   | 0,0 | 19,8 | 8,97 |

Harga *Fh* = 2,7% x 36 = 1,0; 13,34% x 36 = 4,8; 33,96% x 36 = 12,2; 33,96% x 36 = 12,2; 13,34% x 36 = 4,8; 2,7% x 36 = 1,0.

Berdasarkan perhitungan, ditemukan Chi Kuadrat hitung = 8,97. Harga tersebut dibandingkan dengan harga Chi Kuadrat Tabel dengan dk (derajat kebebasan) 6-1= 5, bila dk 5 dan taraf kesalahan 5% maka harga Chi Kuadrat tabel = 11,07. Karena harga Chi Kuadrat hitung lebih kecil dari harga Chi Kuadrat Tabel (8,97 < 11,07), maka distribusi data nilai awal kelas eksperimen tersebut berdistribusi normal.

1. **Data Nilai Awal (*Pretest)* Kelas Kontrol**

**Tabel L.28.2** Distribusi Nilai Awal (*Pretest*) Kelas Kontrol

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nilai | *Fo* | $$Fh$$ | *Fo – Fh* | *(Fo – Fh)* 2 | $$\frac{(Fo – Fh)^{2}}{Fh}$$ |
| 20-29 | 2 | 1,0 | 1,0 | 1,0 | 1,0 |
| 30-39 | 6 | 4,8 | 1,2 | 1,44 | 0,3 |
| 40-49 | 10 | 12,2 | -2,2 | 4,8 | 0,4 |
| 50-59 | 8 | 12,2 | -4,2 | 17,6 | 1,4 |
| 60-69 | 7 | 4,8 | 2,2 | 4,8 | 1,0 |
| 70-80 | 3 | 1,0 | 2,0 | 4,0 | 4,0 |
| Jumlah | 36 |   | 0,0 | 33,76 | 8,15 |

Harga *Fh* = 2,7% x 36 = 1,0; 13,34% x 36 = 4,8; 33,96% x 36 = 12,2; 33,96% x 36 = 12,2; 13,34% x 36 = 4,8; 2,7% x 36 = 1,0.

Berdasarkan perhitungan, ditemukan Chi Kuadrat hitung = 8,15. Harga tersebut dibandingkan dengan harga Chi Kuadrat Tabel dengan dk (derajat kebebasan) 6-1= 5, bila dk 5 dan taraf kesalahan 5% maka harga Chi Kuadrat tabel = 11,07. Karena harga Chi Kuadrat hitung lebih kecil dari harga Chi Kuadrat Tabel (8,15 < 11,07), maka distribusi data nilai awal kelas kontrol tersebut berdistribusi normal.

**Lampiran 22**

**UJI HOMOGENITAS**

**DATA NILAI AWAL (*PRETEST*)**

**Nilai yang diperlukan:**

Varians data kelas eksperimen (S2) = 322,34 (Varians terbesar)

Varians data kelas kontrol (S2) = 252,19 (Varians terkecil)

F hitung = $\frac{Varians terbesar}{Varians terkecil}$

F hitung  = $\frac{322,34}{252,19}$

F hitung = 1,27

**Kriteria pengujian**

Taraf kepercayaan (α) = 0,05

Derajat kebebasan pembilang = n-1 = 36 – 1 = 35

Derajat kebebasan penyebut = n-1 = 36 – 1 = 35

Maka diperoleh F tabel sebagai berikut :

Ftabel = F(α),(dk1/dk2)

Ftabel = F(0,05)(35/35)

F tabel = 1,757

Jika Nilai Fhitung < Ftabel maka sampel berasal dari varians yang homogen. Dari hasil perhitungan nilai *posttest* diperoleh nilai F hitung = 1,27 dan nilai Ftabel = 1,757. Karena nilai Fhitung < Ftabel maka disimpulkan bahwa data dari kedua kelas berasal dari varians yang homogen.

**Lampiran 23**

**DAFTAR HASIL BELAJAR SISWA**

**(Data Nilai *Postest*  Kelas Eksperimen dan Kontrol)**

|  |  |
| --- | --- |
| **Kelas Ekperimen** | **Kelas Kontrol** |
| **No.** | **Kode** | **Nilai *Postest*** | **Kode** | **Nilai *Postest*** |
| 1 | E-1 | 85 | K-1 | 30 |
| 2 | E-2 | 60 | K-2 | 60 |
| 3 | E-3 | 70 | K-3 | 65 |
| 4 | E-4 | 70 | K-4 | 35 |
| 5 | E-5 | 100 | K-5 | 50 |
| 6 | E-6 | 50 | K-6 | 40 |
| 7 | E-7 | 65 | K-7 | 70 |
| 8 | E-8 | 85 | K-8 | 50 |
| 9 | E-9 | 75 | K-9 | 55 |
| 10 | E-10 | 100 | K-10 | 85 |
| 11 | E-11 | 80 | K-11 | 40 |
| 12 | E-12 | 65 | K-12 | 60 |
| 13 | E-13 | 70 | K-13 | 60 |
| 14 | E-14 | 70 | K-14 | 40 |
| 15 | E-15 | 80 | K-15 | 50 |
| 16 | E-16 | 60 | K-16 | 65 |
| 17 | E-17 | 75 | K-17 | 50 |
| 18 | E-18 | 85 | K-18 | 40 |
| 19 | E-19 | 80 | K-19 | 60 |
| 20 | E-20 | 70 | K-20 | 50 |
| 21 | E-21 | 70 | K-21 | 80 |
| 22 | E-22 | 100 | K-22 | 40 |
| 23 | E-23 | 80 | K-23 | 40 |
| 24 | E-24 | 80 | K-24 | 70 |
| 25 | E-25 | 80 | K-25 | 50 |
| 26 | E-26 | 100 | K-26 | 60 |
| 27 | E-27 | 70 | K-27 | 60 |
| 28 | E-28 | 85 | K-28 | 50 |
| 29 | E-29 | 85 | K-29 | 50 |
| 30 | E-30 | 80 | K-30 | 45 |
| 31 | E-31 | 80 | K-31 | 75 |
| 32 | E-32 | 75 | K-32 | 70 |
| 33 | E-33 | 65 | K-33 | 55 |
| 34 | E-34 | 75 | K-34 | 50 |
| 35 | E-35 | 70 | K-35 | 50 |
| 36 | E-36 | 80 | K-36 | 40 |

1. ***Posttest* Kelas Eksperimen**

Nilai tertinggi = 100

Nilai terendah = 50

Jumlah sampel (n) = 36

Rentangan data (R) = Ntertinggi  - Nterendah = 100-50= 50

Banyaknya kelas = 1 + 3,3 Log n = 1 + 3,3 Log 36 = 1 + 3,3 (1,56) = 6,148 = 6

Panjang Kelas = $50:6$ = 8,3 = 8 (dibulatkan)

**Tabel L.30.1** Perhitungan Nilai Akhir (*Postest*)Kelas Eskperimen

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nilai | *Fi* | $$Xi$$ | *Fi.xi* | *Xi* 2 | $$Fi.xi^{2}$$ |
| 50-57 | 1 | 53,5 | 53,5 | 2862,25 | 2862,25 |
| 58-65 | 3 | 61,5 | 184,5 | 3782,25 | 11346,75 |
| 66-73 | 9 | 69,5 | 625,5 | 4830,25 | 43472,25 |
| 74-81 | 13 | 77,5 | 1007,5 | 6006,25 | 78081,25 |
| 82-89 | 6 | 85,5 | 513 | 7310,25 | 43861,5 |
| 90-100 | 4 | 95 | 380 | 9025 | 36100 |
| Jumlah | 36 | 10,86 | 2764 | 33816,25 | 215724 |

1. **Nilai Rata-Rata/ Mean **

$\overbar{X}$ = $\frac{\sum\_{}^{}fixi}{\sum\_{}^{}fi}$

$\overbar{X}$ = $\frac{2764}{36}$= 76,78

1. **Median**

Me = $b+ P\left(\frac{\frac{1}{2}n-F}{f}\right)$

Keterangan :

Me = median

b = batas bawah kelas median

P = panjang kelas

n = banyak data

F = jumlah frekuensi sebelum kelas median

f = frekuensi kelas median

Me = $81,5+ 8,3\left( \frac{\frac{1}{2}\left(36\right)-13}{13}\right)$

Me = $81,5+ 8,3\left(0,38\right) $=$ 84,65$

1. **Modus**

Mo = $b+P\left(\frac{b1}{b1+b2}\right)$

Keterangan:

Mo = modus

b = batas bawah kelas interval dengan frekuensi terbanyak

P = panjang kelas

b­1 = frekuensi terbanyak dikurang frekuensi sebelumnya

b­2 = frekuensi terbanyak modus dikurang frekuensi setelahnya

Mo = 73$,5+8,3\left(\frac{4}{4+7}\right)$

Mo = $73,5+8,3\left(0,36\right)$

Mo = $76,48$

1. **Varians**

S2 = $\frac{\sum\_{}^{}fixi^{2}- \frac{(\sum\_{}^{}fixi)^{2}}{\sum\_{}^{}fi}}{\sum\_{}^{}fi-1}$

S2 = $\frac{215724- \frac{(2764)^{2}}{36}}{36-1}$

S2 = $\frac{215724-212213,78}{35}$

S2 = 100,29

1. **Standar deviasi**

S = $\sqrt{s^{2}}$

S = $\sqrt{100,29}$

S = 10,01

1. ***Posttest* Kelas Kontrol**

Nilai tertinggi = 80

Nilai terendah = 35

Jumlah sampel (n) = 36

Rentangan data (R) = Ntertinggi  - Nterendah = 90-35= 55

Banyaknya kelas = 1 + 3,3 Log n = 1 + 3,3 Log 36 = 1 + 3,3 (1,56) = 6,148 = 6

Panjang Kelas = 55 : 6 = 9,16 = 9 (dibulatkan)

**Tabel L.30.2** Perhitungan Nilai Akhir (*Postest*)Kelas Kontrol

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nilai | *Fi* | $$Xi$$ | *Fi,xi* | *Xi* 2 | $$Fi,xi^{2}$$ |
| 30-38 | 2 | 34 | 68 | 1156 | 2312 |
| 39-47 | 8 | 43 | 344 | 1849 | 14792 |
| 48-56 | 12 | 52 | 624 | 2704 | 32448 |
| 57-65 | 8 | 61 | 488 | 3721 | 29768 |
| 66-74 | 3 | 70 | 210 | 4900 | 14700 |
| 75-85 | 3 | 80 | 240 | 6400 | 19200 |
| Jumlah | 36 |  | 1974 | 20730 | 113220 |

1. **Nilai Rata-Rata/ Mean **

$\overbar{X}$ = $\frac{\sum\_{}^{}fixi}{\sum\_{}^{}fi}$

$\overbar{X}$ = $\frac{1974}{36}$

$\overbar{X}$ = 54,83

1. **Median**

Me = $b+ P\left(\frac{\frac{1}{2}n-F}{f}\right)$

Keterangan :

Me = median

b = batas bawah kelas median

P = panjang kelas

n = banyak data

F = jumlah frekuensi sebelum kelas median

f = frekuensi kelas median

Me = $56,5+ 9,16\left(\frac{\frac{1}{2}\left(36\right)-10}{12}\right)$

Me = $56,5+ 9,16\left(0,67\right)$

Me =$ 62,63$

1. **Modus**

Mo = $b+P\left(\frac{b1}{b1+b2}\right)$

Keterangan:

Mo = modus

b = batas bawah kelas interval dengan frekuensi terbanyak

P = panjang kelas

b­1 = frekuensi terbanyak dikurang frekuensi sebelumnya

b­2 = frekuensi terbanyak modus dikurang frekuensi setelahnya

Mo = 47$,5+9,16\left(\frac{4}{4+4}\right)$

Mo = $47,5+9,16\left(0,5\right)$

Mo = $52,08$

1. **Varians**

S2 = $\frac{\sum\_{}^{}fixi^{2}- \frac{(\sum\_{}^{}fixi)^{2}}{\sum\_{}^{}fi}}{\sum\_{}^{}fi-1}$

S2 = $\frac{113220- \frac{(1974)^{2}}{36}}{36-1}$

S2 = $\frac{113220-108241}{35}$

S2 = 142,25

1. **Standar deviasi**

S = $\sqrt{s^{2}}$

S = $\sqrt{142,25} $

S = 11,92

**Lampiran 24**

**UJI NORMALITAS**

**DATA NILAI AKHIR (*POSTEST)* KELAS EKSPERIMEN DAN KONTROL**

1. **Data Nilai Akhir (*Postest)* Kelas Eksperimen**

**Tabel L.31.1** Distribusi Nilai Akhir (*Postest*) Kelas Eksperimen

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nilai | *Fo* | $$Fh$$ | *Fo – Fh* | *(Fo – Fh)* 2 | $$\frac{(Fo – Fh)^{2}}{Fh}$$ |
| 50-57 | 1 | 1,0 | 0,0 | 0,0 | 0,0 |
| 58-65 | 3 | 4,8 | -1,8 | 3,2 | 0,7 |
| 66-73 | 9 | 12,2 | -3,2 | 10,2 | 0,8 |
| 74-81 | 13 | 12,2 | 0,8 | 0,6 | 0,1 |
| 82-89 | 6 | 4,8 | 1,2 | 1,4 | 0,3 |
| 90-100 | 4 | 1,0 | 3,0 | 9,0 | 90 |
| Jumlah | 36 |   | 0,0 | 24,56 | 10,87 |

Harga *Fh* = 2,7% x 36 = 1,0; 13,34% x 36 = 4,8; 33,96% x 36 = 12,2; 33,96% x 36 = 12,2; 13,34% x 36 = 4,8; 2,7% x 36 = 1,0,

Berdasarkan perhitungan, ditemukan Chi Kuadrat hitung = 10,87. Harga tersebut dibandingkan dengan harga Chi Kuadrat Tabel dengan dk (derajat kebebasan) 6-1= 5, bila dk 5 dan taraf kesalahan 5% maka harga Chi Kuadrat tabel = 11,07. Karena harga Chi Kuadrat hitung lebih kecil dari harga Chi Kuadrat Tabel (10,87 < 11,07), maka distribusi data nilai akhir kelas eksperimen tersebut berdistribusi normal.

1. **Data Nilai Akhir (*Postest)* Kelas Kontrol**

**Tabel L.31.2** Distribusi Nilai Awal (*Pretest*) Kelas Kontrol

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Nilai | *Fo* | $$Fh$$ | *Fo – Fh* | *(Fo – Fh)* 2 | $$\frac{(Fo – Fh)^{2}}{Fh}$$ |
| 30-38 | 2 | 1,0 | 1,0 | 1,0 | 1,0 |
| 39-47 | 8 | 4,8 | 3,2 | 10,2 | 2,1 |
| 48-56 | 12 | 12,2 | -0,2 | 0,04 | 0,003 |
| 57-65 | 8 | 12,2 | -4,2 | 17,6 | 1,4 |
| 66-74 | 3 | 4,8 | -1,8 | 3,2 | 0,7 |
| 75-85 | 3 | 1,0 | 2,0 | 4,0 | 4,0 |
| Jumlah | 36 |   | 0,0 | 36,04 | 9,203 |

Harga *Fh* = 2,7% x 36 = 1,0; 13,34% x 36 = 4,8; 33,96% x 36 = 12,2; 33,96% x 36 = 12,2; 13,34% x 36 = 4,8; 2,7% x 36 = 1,0,

Berdasarkan perhitungan, ditemukan Chi Kuadrat hitung = 9,203. Harga tersebut dibandingkan dengan harga Chi Kuadrat Tabel dengan dk (derajat kebebasan) 6-1= 5, bila dk 5 dan taraf kesalahan 5% maka harga Chi Kuadrat tabel = 11,07, Karena harga Chi Kuadrat hitung lebih kecil dari harga Chi Kuadrat Tabel (9,203 < 11,07), maka distribusi data nilai akhir kelas kontrol tersebut berdistribusi normal.

**Lampiran 25**

**UJI HOMOGENITAS**

**DATA NILAI AKHIR (*POSTEST*)**

**Nilai yang diperlukan:**

Varians data kelas eksperimen (S2) = 100,29 (Varians terkecil)

Varians data kelas kontrol (S2) = 142,25 (Varians terbesar)

F hitung = $\frac{Varians terbesar}{Varians terkecil}$

F hitung  = $\frac{142,25}{100,29}$

F hitung = 1,41

**Kriteria pengujian**

Taraf kepercayaan (α) = 0,05

Derajat kebebasan pembilang = n-1 = 36 – 1 = 35

Derajat kebebasan penyebut = n-1 = 36 – 1 = 35

Maka diperoleh F tabel sebagai berikut :

Ftabel = F(α),(dk1/dk2)

Ftabel = F(0,05)(35/35)

F tabel = 1,757

Jika Nilai Fhitung < Ftabel maka sampel berasal dari varians yang homogen, Dari hasil perhitungan nilai *posttest* diperoleh nilai F hitung = 1,41 dan nilai Ftabel = 1,757, Karena nilai Fhitung < Ftabel maka disimpulkan bahwa data dari kedua kelas berasal dari varians yang homogen.

**Lampiran 26**

**UJI HIPOTESIS**

**Rumus yang digunakan:**

$$t\_{hitung}=\frac{X\_{1}- X\_{2}}{\sqrt{\left(\frac{(n\_{1}-1) s\_{1}^{2}+\left(n\_{2}-1\right)s\_{2}^{2}}{n\_{1}+ n\_{2}-2} \right)- \left(\frac{1}{n\_{1}}+ \frac{1}{n\_{2}}\right)}}$$

$$t\_{hitung}=\frac{76,78- 54,83}{\sqrt{\left(\frac{\left(36-1\right)100,29+\left(36-1\right)142,25}{36+ 36-2} \right)- \left(\frac{1}{36}+ \frac{1}{36}\right)}}$$

$$t\_{hitung}=\frac{21,95}{\sqrt{\left(\frac{\left(35\right)97,01+\left(35\right)142,25}{70} \right)- \left(\frac{2}{36}\right)}}$$

$$t\_{hitung}=\frac{21,95}{\sqrt{\left(\frac{3508,75+4978,75}{70} \right)- \left(0,56\right)}}$$

$$t\_{hitung}=\frac{21,95}{\sqrt{\left(121,25 \right)- \left(0,56\right)}}$$

$$t\_{hitung}=\frac{21,95}{\sqrt{120,69}}$$

$$t\_{hitung}=\frac{21,95}{10,9}$$

$$t\_{hitung}=2,01$$

**Untuk nilai** $t\_{tabel}:$

dk = $n\_{1}$+ $n\_{2}$ – 2

 = 36 + 36 – 2

 = 70

Taraf signifikan (α) = 0,05 maka ttabelnya adalah :

ttabel = t(0,05)(70)

 = 1,99

Dari hasil perhitungan diperoleh $t\_{hitung}$ > $t\_{tabel}$= 2,01 > 1,99, Sehingga Ho ditolak dan Ha diterima, Sehingga, ditarik kesimpulan bahwa terdapat pengaruh positif terhadap hasil belajar matematika siswa kelas V SD Inpres Perumnas Kecamatan Rappocini Kota Makassar yang diajarkan dengan model pembelajaran kooperatif tipe *teams games tournament* (TGT).