

Lampiran 7

Tabel 7. Hasil Tes Awal Kelompok Y (Model latihan naik turun tambang)

No.	Nama	Y	Y ²
1	Indira	12	144
2	Nida	12	144
3	Shinta	13	169
4	Nila	13	169
5	Elisabeth	13	169
6	Hilma	14	196
7	Zahra	14	196
8	Nindy	15	225
9	Yoga	15	225
10	Johanes	15	225
11	Ahmad	15	225
12	Mely	16	256
13	Rani	16	256
14	Jamil	17	289
15	Wali	17	289
Total		217	3177

Tes Awal

$$\begin{aligned}\bar{Y} &= \frac{\Sigma Y}{n} \\ &= \frac{217}{15} = 14,47\end{aligned}$$

$$\begin{aligned}S^2 &= \frac{n \cdot \Sigma Y^2 - (\Sigma Y)^2}{n \cdot (n-1)} \\ &= \frac{15 \cdot 3177 - (217)^2}{15 \cdot (15-1)} \\ &= \frac{47.655 - 47.089}{210} \\ &= \frac{566}{210} \\ &= 2,69\end{aligned}$$

$$\begin{aligned}S &= \sqrt{S^2} \\ &= \sqrt{2,69} \\ &= 1,64\end{aligned}$$

Lampiran 8

Tabel Distribusi Frekuensi

Menentukan rentang (R)

$$\begin{aligned} R &= \text{Max} - \text{Min} \\ &= 17 - 12 \\ &= 5 \end{aligned}$$

Menentukan banyaknya kelas (K)

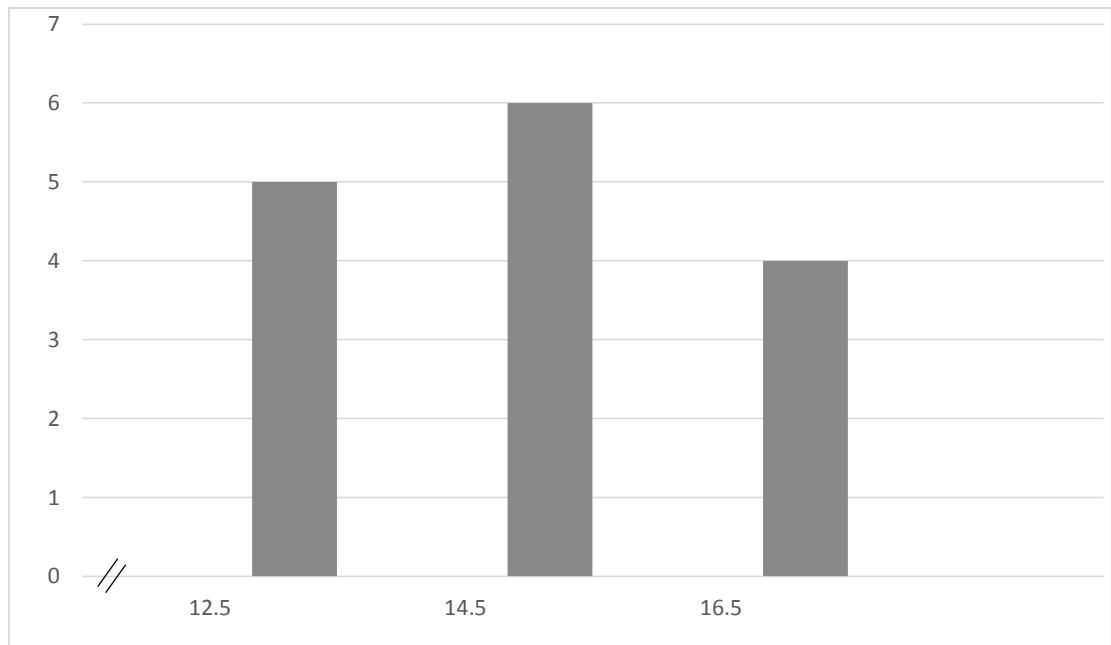
$$\begin{aligned} K &= 1 + 3,3 (\log n) \\ &= 1 + 3,3 (\log 15) \\ &= 1 + 3,88 \\ &= 4,88 \approx 5 \end{aligned}$$

Panjang kelas (P)

$$\begin{aligned} P &= \frac{R}{K} \\ &= \frac{5}{5} \\ &= 1 \end{aligned}$$

Tabel 8. Distribusi frekuensi tes awal kelompok (Y) metode Latihan naik turun tambang

No.	Interval	Titik Tengah	Frekuensi Absolut	Frekuensi Relatif
1	12 – 13	12,5	5	33%
2	14 – 15	14,5	6	40%
3	16 – 17	16,5	4	27%
	TOTAL		15	100%



Histogram data kemampuan tes awal model latihan naik turun tambang

Lampiran 9

Tabel 9. Tes Akhir naik turun tambang

No.	Nama	Y	Y ²
1	Indira	14	196
2	Nida	15	225
3	Shinta	16	256
4	Nila	14	196
5	Elisabeth	15	225
6	Hilma	16	256
7	Zahra	15	225
8	Nindy	17	289
9	Yoga	18	324
10	Johanes	18	324
11	Ahmad	17	289
12	Mely	18	324
13	Rani	19	361
14	Jamil	19	361
15	Wali	20	400
Total		251	4251

$$\begin{aligned}\bar{Y} &= \frac{\Sigma Y}{n} \\ &= \frac{251}{15} = 16,73\end{aligned}$$

$$\begin{aligned}S^2 &= \frac{n \cdot \Sigma Y^2 - (\Sigma Y)^2}{n \cdot (n-1)} \\ &= \frac{15 \cdot 4251 - (251)^2}{15 \cdot (15-1)} \\ &= \frac{63.765 - 63.001}{210} \\ &= \frac{755}{210} \\ &= 3,59\end{aligned}$$

$$\begin{aligned}S &= \sqrt{S^2} \\ &= \sqrt{3,59} \\ &= 1,89\end{aligned}$$

Lampiran 10

Tabel Distribusi Frekuensi

Menentukan rentang (R)

$$\begin{aligned} R &= \text{Max} - \text{Min} \\ &= 20 - 14 \\ &= 5 \end{aligned}$$

Menentukan banyaknya kelas (K)

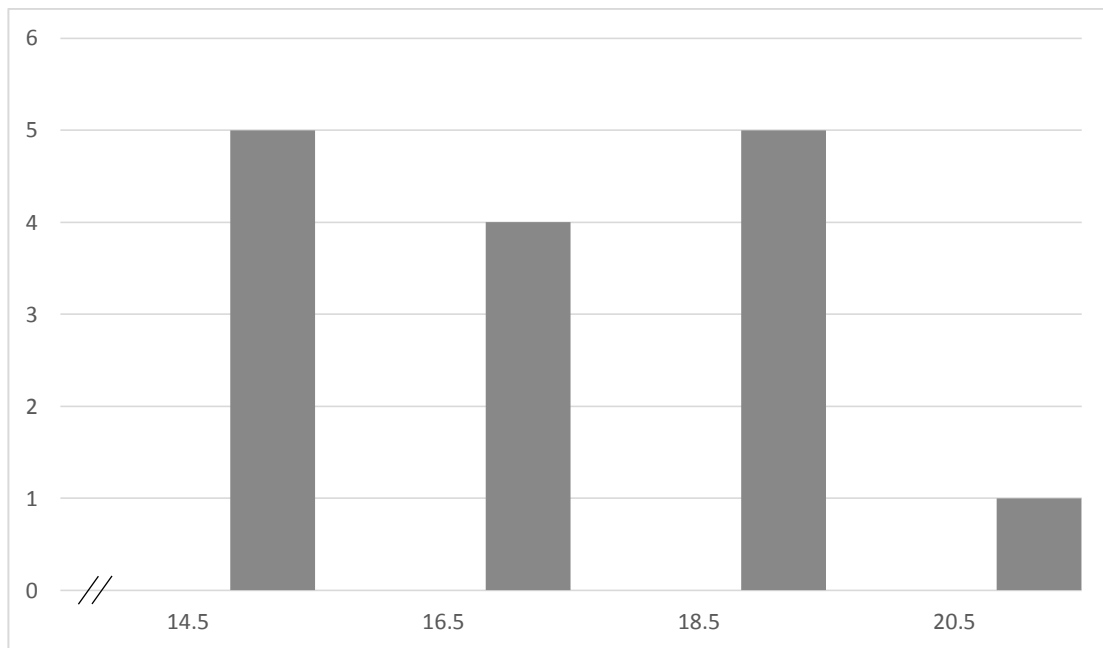
$$\begin{aligned} K &= 1 + 3,3 (\log n) \\ &= 1 + 3,3 (\log 15) \\ &= 1 + 3,88 \\ &= 4,88 \approx 5 \end{aligned}$$

Panjang kelas (P)

$$\begin{aligned} P &= \frac{R}{K} \\ &= \frac{6}{5} \\ &= 1,2 \end{aligned}$$

Tabel 10. Distribusi frekuensi tes akhir kelompok (Y) metode Latihan naik turun tambang

No.	Interval	Titik Tengah	Frekuensi Absolut	Frekuensi Relatif
1	14 – 15	14,5	5	33,3%
2	16 – 17	16,5	4	26,7%
3	18 – 19	18,5	5	33,3%
4	20 – 21	20,5	1	6,7%
	TOTAL		15	100%



Histogram data kemampuan tes akhir model latihan naik turun tambang

Lampiran 11

Tabel 11. Perhitungan Uji-t Paired (Model latihan naik turun tambang)

No.	Nama	Y ₁	Y ₂	D (Y ₁ - Y ₂)	D ²
1	Indira	12	14	2	4
2	Nida	12	15	3	9
3	Shinta	13	16	3	9
4	Nila	13	14	1	1
5	Elisabeth	13	15	2	4
6	Hilma	14	16	2	4
7	Zahra	14	15	1	1
8	Nindy	15	17	2	4
9	Yoga	15	18	3	9
10	Johanes	15	18	3	9
11	Ahmad	15	17	2	4
12	Mely	16	18	2	4
13	Rani	16	19	3	9
14	Jamil	17	19	2	4
15	Wali	17	20	3	9
Total		217	251	34	84

Diketahui :

$$\sum D = 34$$

$$\sum D^2 = 84$$

Dicari :

$$M_D = \frac{\sum D}{n} = \frac{34}{15} = 2,27$$

$$S_{db} = \sqrt{\frac{\sum D^2}{n} - \left(\frac{\sum D}{n}\right)^2}$$

$$= \sqrt{\frac{84}{15} - \left(\frac{34}{15}\right)^2}$$

$$= \sqrt{5,6 - 5,14} = \sqrt{0,46} = 0,68$$

$$SE_{MD} = \frac{S_{dD}}{\sqrt{n-1}}$$

$$= \frac{0,68}{\sqrt{15-1}}$$

$$= \frac{0,68}{3,74}$$

$$= 0,18$$

$$\begin{aligned}t_o &= \frac{M D}{0,18} \\&= \frac{2,27}{0,18} \\&= 12,61\end{aligned}$$

$$\begin{aligned}\text{Mencari } t_{\text{tabel}} &= (\alpha ; n-1) \\&= (0,05 ; 14) \\&= 1,76\end{aligned}$$

Dari data tersebut diperoleh t_{hitung} sebesar 12,61 t_{tabel} dengan uji satu sisi pada taraf signifikansi 0,05 dengan $n-1 = 14$ adalah 1,76, maka $t_{\text{hitung}} (12,61) > t_{\text{tabel}} (1,76)$, berarti terjadi peningkatan yang signifikansi antara latihan dengan menggunakan model latihan naik turun tambang tes awal dan tes akhir.