

## LAMPIRAN

### Lampiran 1

Data Hasil Uji Instrumen

Data test Daya Ledak, Test Kelentukan Pinggang, dan Test Lemparan

Javelin

**Tabel 1. Data Mentah Hasil UjiInstrument Test**

NO	NAMA	DAYA LEDAK OTOT LENGAN			KELENTUKAN PINGGANG			JARAK LEMPARAN JAVELIN	
		1	2	Terbaik	KANAN	KIRI	rata-rata	1	2
1		4.2	4.0	4.2	27	27	27	25	26
2		4.4	4.4	4.4	20	20	20	20	19
3		3.4	3.4	3.4	27	27	27	23	23
4		4.2	4.2	4.2	27	27	27	28	28
5		4.2	4.2	4.2	18	20	19	22	22
6		3.5	3.5	3.5	28	28	28	26	26
7		3.7	3.7	3.7	26	26	26	27	28
8		4.3	4.3	4.3	20	20	20	23	24
9		3.3	3.3	3.3	26	20	23	25	25
10		4.5	4.5	4.5	30	30	30	28	28
11		3.7	3.6	3.6	28	28	28	23	24
12		3.7	3.7	3.7	27	27	27	25	25
13		3.7	3.6	3.7	26	26	26	26	26
14		4.6	4.6	4.6	30	30	30	27	26
15		4.3	4.3	4.3	27	27	27	24	24
<b>JUMLAH</b>		59.5	59.3	59.6	387	383	385	372	374
<b>Rata-rata</b>		3.96	3.95	3.97	25,8	25,53	25,67	24,8	24,93

## Lampiran 2

Perhitungan Uji Coba Instrument Test *Javelin Throw*

**Tabel 2. Data Mentah Hasil Uji Instrument Test *Javelin Throw***

No	Nama	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1		25	26	625	676	650
2		20	19	400	361	380
3		23	23	529	529	529
4		28	28	784	784	784
5		22	22	484	484	484
6		26	26	676	676	676
7		27	28	729	784	756
8		23	24	529	576	552
9		25	25	625	625	625
10		28	28	784	784	784
11		23	24	529	576	552
12		25	25	625	625	625
13		26	26	676	676	676
14		27	26	729	676	702
15		24	24	576	576	576
<b>Jumlah</b>		372	374	9300	9408	9351
<b>Rata-rata</b>		24.8	24.93333	620	627.2	623.4

Keterangan : X = Tes Pertama

Y = Tes Kedua

Diketahui :  $\sum X = 372$

$\sum Y = 374$

$\sum X^2 = 9300$

$\sum Y^2 = 9408$

$\sum XY = 9351$

N = 15

Maka :

$$\begin{aligned}
 r &= \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{N\sum X^2 - (\sum X)^2\}\{N\sum Y^2 - (\sum Y)^2\}}} \\
 &= \frac{15(9351) - (372)(374)}{\sqrt{\{15(9300) - (372)^2\}15(9408) - (374)^2\}} \\
 &= \frac{140265 - 139128}{\sqrt{\{139500 - (138384)\}\{(141120) - (139876)\}}} \\
 &= \frac{1137}{\sqrt{(1116)(1244)}} \\
 &= \frac{1137}{\sqrt{1388304}} \\
 &= \frac{1137}{1178,26} \\
 &= 0,96
 \end{aligned}$$

Berdasarkan pada perhitungan diatas, maka nilai Realibilitas instrument *Javelin Throw* adalah 0,96

Kekuatan Otot Lengan ( $X_1$ )

Nama Alat : Medicine Ball

**Tabel 3. Data Daya Ledak Otot Lengan ( $X_1$ )**

No	Nama	Daya Ledak Otot Lengan		
		Tes 1	Tes 2	Terbaik
1		3.9	3.8	3.9
2		3.8	3.8	3.8
3		3.2	3.2	3.2
4		3.6	3.6	3.6
5		4.2	4.0	4.2
6		4.4	4.4	4.4
7		3.4	3.4	3.4
8		4.2	4.2	4.2
9		4.2	4.2	4.2
10		3.5	3.5	3.5
11		3.7	3.7	3.7
12		4.3	4.3	4.3
13		3.3	3.3	3.3
14		4.5	4.5	4.5
15		3.7	3.6	3.6
16		3.7	3.7	3.7
17		3.7	3.6	3.7
18		4.6	4.6	4.6
19		4.3	4.3	4.3
20		3.6	3.6	3.6

Kelentukan ( $X_2$ )

Nama Alat : Flexometer

**Tabel 4. Data Kelentukan Pinggang ( $X_2$ )**

No	Nama	Kelentukan		
		Kanan	Kiri	Rata-rata
1		27	27	27
2		25	25	25
3		20	20	20
4		27	27	27
5		27	27	27
6		28	28	28
7		18	20	19
8		28	28	28
9		26	26	26
10		20	20	20
11		26	20	23
12		30	32	32
13		20	20	20
14		34	34	34
15		28	28	28
16		27	27	27
17		26	26	26
18		30	30	30
19		28	28	28
20		27	27	27

Lemparan Penjaga Gawang (Y)

Nama Alat : Bola

**Tabel 4. Data Lemparan *Javelin Throw***

No	Nama	Lemparan Javelin		
		Tes 1	Tes 2	Terbaik
1		25	26	26
2		27	27	27
3		20	20	20
4		23	23	23
5		28	28	28
6		29	30	30
7		22	22	22
8		26	26	26
9		27	28	28
10		23	24	24
11		25	25	25
12		28	28	28
13		20	21	21
14		29	29	29
15		23	24	24
16		25	25	25
17		26	26	26
18		27	27	27
19		27	27	27
20		24	24	24

## Lampiran 4

### Langkah-langkah Perhitungan Distribusi Frekuensi

#### A. Variabel Daya Ledak Otot Lengan ( $X_1$ )

$$\begin{aligned} \text{Rentang (R)} &= \text{Data Terbesar} - \text{Data Terkecil} \\ &= 4.6 - 3.2 \\ &= 1.8 \end{aligned}$$

$$\begin{aligned} \text{Banyak Kelas (BK)} &= 1 + (3,3) \text{ Log } n \\ &= 1 + (3,3) \text{ Log } 20 \\ &= 1 + (3,3) 1,30 \\ &= 1 + 4,29 \\ &= 5,29 \text{ (5)} \end{aligned}$$

$$\begin{aligned} \text{Panjang Kelas (PK)} &= \frac{R}{BK} \\ &= 1.8/5 \\ &= 0,36 \end{aligned}$$

#### B. Variabel Kelentukan Pinggang ( $X_2$ )

$$\begin{aligned} \text{Rentang (R)} &= \text{Data Terbesar} - \text{Data Terkecil} \\ &= 34 - 19 \\ &= 15 \end{aligned}$$

$$\begin{aligned}
 \text{Banyak Kelas (BK)} &= 1+(3,3) \text{ Log } n \\
 &= 1+(3,3) \text{ Log } 20 \\
 &= 1+(3,3) 1,30 \\
 &= 1+4,29 \\
 &= 5,29 (5)
 \end{aligned}$$

$$\begin{aligned}
 \text{Panjang Kelas (PK)} &= \frac{R}{BK} \\
 &= 15/5 \\
 &= 3
 \end{aligned}$$

### C. Variabel Lemparan Javelin (Y)

$$\begin{aligned}
 \text{Rentang (R)} &= \text{Data Terbesar} - \text{Data Terkecil} \\
 &= 30 - 20 \\
 &= 10
 \end{aligned}$$

$$\begin{aligned}
 \text{Banyak Kelas (BK)} &= 1+(3,3) \text{ Log } n \\
 &= 1+(3,3) \text{ Log } 20 \\
 &= 1+(3,3) 1,30 \\
 &= 1+4,29 \\
 &= 5,29 (5)
 \end{aligned}$$

$$\begin{aligned}
 \text{Panjang Kelas (PK)} &= \frac{R}{BK} \\
 &= 10 / 5 = 2
 \end{aligned}$$



## Lampiran 5

**Tabel 5. Data mentah hasil Test daya ledak otot lengan, kelentukan pinggang, dan lemparan *javelin***

No	Nama	X <sub>1</sub>	X <sub>2</sub>	Y	X <sub>1</sub> <sup>2</sup>	X <sub>2</sub> <sup>2</sup>	Y <sup>2</sup>	XY
1		3.9	27	26	15.21	729	676	702
2		3.8	25	27	14.44	625	729	675
3		3.2	20	20	10.24	400	400	400
4		3.6	27	23	12.96	729	529	621
5		4.2	27	28	17.64	729	784	756
6		4.4	28	30	19.36	784	900	840
7		3.4	19	22	11.56	361	484	418
8		4.2	28	26	17.64	784	676	728
9		4.2	26	28	17.64	676	784	728
10		3.5	20	24	12.25	400	576	480
11		3.7	23	25	13.69	529	625	575
12		4.3	30	28	18.49	900	784	840
13		3.3	20	21	10.89	400	441	420
14		4.5	34	29	20.25	1156	841	986
15		3.6	28	24	12.96	784	576	672
16		3.7	27	25	13.69	729	625	675
17		3.7	26	26	13.69	676	676	676
18		4.6	30	27	21.16	900	729	810
19		4.3	28	27	18.49	784	729	756
20		3.6	27	24	12.96	729	576	648
<b>Jumlah</b>		<b>77.7</b>	<b>520</b>	<b>510</b>	<b>305.21</b>	<b>13804</b>	<b>13140</b>	<b>13406</b>
<b>Rata-rata</b>		<b>3.89</b>	<b>26</b>	<b>25.5</b>	<b>15.2605</b>	<b>690.2</b>	<b>657</b>	<b>670,3</b>

## Lampiran 6

A. Menghitung Rata-rata dan simpangan baku

1. Variabel Daya Ledak Otot Lengan ( $X_1$ )

$$\text{Dik} : \sum X_1 = 77.7 \quad \sum X_1^2 : 305.21 \quad n = 20$$

$$\text{a. Rata-rata } X_1 = \frac{\sum X_1}{n} = \frac{77.7}{20} = 3.89$$

$$\text{b. Simpangan Baku} = \sqrt{\frac{n\sum x_1^2 - (\sum x_1)^2}{n(n-1)}}$$

$$= \sqrt{\frac{6104,2 - 6037,29}{380}}$$

$$= \sqrt{0,18}$$

$$= 0,42$$

$$\text{c. Varians} = 0,18$$

2. Variabel Kelentukan Pinggang ( $X_2$ )

$$\text{Dik} : \sum X_2 = 520 \quad \sum X_2^2 : 13804 \quad n = 20$$

$$\text{a. Rata-rata } X_2 = \frac{\sum X_2}{n} = \frac{520}{20} = 26$$

$$\text{b. Simpangan Baku} = \sqrt{\frac{n\sum x_2^2 - (\sum x_2)^2}{n(n-1)}}$$

$$= \sqrt{\frac{20(13804) - (520)^2}{380}}$$

$$= \sqrt{\frac{5680}{380}}$$

$$= \sqrt{14,95}$$

$$= 3,87$$

c. Varians = 14,95

3. Variabel Lemparan *Javelin* (Y)

Dik :  $\sum Y = 510$      $\sum Y^2 = 260100$      $n = 20$

d. Rata-rata Y =  $\frac{\sum Y}{n} = \frac{510}{20} = 25,5$

e. Simpangan Baku =  $\sqrt{\frac{n\sum x_1^2 - (\sum x_1)^2}{n(n-1)}}$

$$= \sqrt{\frac{262800 - 260100}{380}}$$

$$= \sqrt{\frac{2700}{380}}$$

$$= \sqrt{7,11}$$

$$= 2,67$$

4. Varians = 7,11

## A. Menentukan T Skor

Contoh :  $N$  ke-1 Dari  $X_1$ 

$$\begin{aligned}
 \text{T skor } X_1 &= 50+10 \frac{(X_1 - \bar{X}_1)}{SD_1} \\
 &= 50+10 \frac{3,9 - 3,89}{0,18} \\
 &= 50+10 (0,06) \\
 &= 50,6
 \end{aligned}$$

Contoh :  $N$  ke-1 Dari  $X_2$ 

$$\begin{aligned}
 \text{T skor } X_2 &= 50+10 \frac{(X_1 - \bar{X}_1)}{SD_1} \\
 &= 50+10 \\
 &= 50+10 (0,07) \\
 &= 50,7
 \end{aligned}$$

Contoh : N ke-1 Dari Y

$$\begin{aligned} \text{T skor } Y_2 &= 50+10 \frac{y-y}{SD_1} \\ &= 50+10 \frac{26-25,5}{7,11} \\ &= 50+10 (0,07) \\ &= 50,7 \end{aligned}$$