

***LAMPIRAN***

**Data Hasil Penelitian**

<b>No</b>	<b>Nama</b>	<b>Push Up</b>	<b>Skuat Jump</b>	<b>Renang</b>
1	Ani Setiawati	26	20	37,15
2	Azry Ayu Nabilah	38	32	33,05
3	Desna Dwi Cahyani	38	30	33,66
4	Febri Kartika	20	24	38,07
5	Karina Oktavia	14	21	40,23
6	I Made	30	29	36,33
7	Nia Rahmawati	20	15	39,02
8	Noni	21	22	36,87
9	Novi Susanti	35	32	34,11
10	Rohimah	23	24	39,09
Total		265	249	367,58
Rerata		26,5	24,9	36,758

### Hubungan Antara Daya Tahan Otot Lengan Dengan Renang Gaya Dada

Data hasil penelitian daya tahan otot lengan dengan kemampuan renang yang telah diubah dalam bentuk baku ( T score )

No	Nama	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	Ani Setiawati	30	25	900	625	750
2	Azry Ayu	58,7	22,8	3445,69	519,84	1338,36
3	Desna Dwi	58,7	17,5	3445,69	306,25	1027,25
4	Febri Kartika	34,1	127	1162,81	16129	4330,7
5	Karina Oktavia	42	78,7	1764	6193,69	3305,9
6	I Made	78,5	-197	6162,25	38809	-15464,5
7	Nia Rahmawati	34,1	94,5	1162,81	8930,25	3222,45
8	Noni	32	907	1024	822649	29024
9	Novi Susanti	61,7	11,8	3806,89	136,24	728,86
10	Rohimah	21,5	92,7	462,25	8593,29	1993,06
Total		451,3	1178,8	23336,39	903294,56	30260,07

Koefisien korelasi daya tahan otot lengan dengan kemampuan renang gaya dada

Data Baku :

$$\sum X = 451,3$$

$$\sum Y = 1178,8$$

$$\sum X^2 = 23336,39$$

$$\sum Y^2 = 903294,56$$

$$\sum XY = 30260,07$$

$$r_{XY} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{\{n \sum X^2 - (\sum X)^2\} \{n \sum Y^2 - (\sum Y)^2\}}}$$

$$r_{XY} = \frac{(10).(30260,07) - (451,3)(1178,8)}{\sqrt{\{(10).(23336,39) - (451,3)^2\} \{(10).(903294,56) - (1178,8)^2\}}}$$

$$r_{XY} = \frac{302600,7 - 531992,44}{\sqrt{\{(233363,9) - (20367,69)\} \{(9032945,6) - (1389569,44)\}}}$$

$$r_{XY} = \frac{-229397,74}{\sqrt{\{212926,21\} \{7643376,16\}}}$$

$$r_{XY} = \frac{-229397,74}{1275725,33}$$

$$r_{XY} = -0.1798$$

Hasil korelasi antara daya tahan otot lengan dengan kemampuan renang 25 meter gaya dada melalui perhitungan diperoleh hasil koefisien korelasi = 0.1798. Dengan hasil tersebut maka daya tahan otot lengan memiliki hubungan yang lemah dengan kemampuan renang 25 meter gaya dada pada mahasiswa penjas kesrek angkatan 2010 Universitas Lampung

### Hubungan Antara Daya Tahan Otot Tungkai Dengan Renang Gaya Dada

Data hasil penelitian daya tahan otot tungkai dengan kemampuan renang yang telah diubah dalam bentuk baku ( T score )

No	Nama	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	Ani Setiawati	29,6	25	876,16	625	740
2	Azry Ayu Nabilah	64	22,8	4096	519,84	1459,2
3	Desna Dwi Cahyani	69,9	17,5	4844,16	306,25	1218
4	Febri Kartika	39	127	1521	16129	4953
5	Karina Oktavia	23,5	78,7	552,25	6193,69	6849,45
6	I Made	74,4	-197	5535,36	38809	-14656
7	Nia Rahmawati	39,8	94,5	1584,04	8930,25	3761,1
8	Noni	15,5	907	240,25	822649	14058,5
9	Novi Susanti	64	11,8	4096	136,24	755,2
10	Rohimah	39	92,7	4844,16	8593,29	3615,3
Total		458,4	1178,8	28189,38	903294,56	17753,75

Koefisien korelasi daya tahan otot tungkai dengan kemampuan renang gaya dada

Data Baku :

$$\sum X = 458,4$$

$$\sum Y = 1178,8$$

$$\sum X^2 = 28189,38$$

$$\sum Y^2 = 903294,56$$

$$\sum XY = 17753,75$$

$$r_{XY} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{\{n \sum X^2 - (\sum X)^2\} \{n \sum Y^2 - (\sum Y)^2\}}}$$

$$r_{XY} = \frac{(10).(17753,75) - (458,4)(1178,8)}{\sqrt{\{(10).(28189,38) - (458,4)^2\} \{(10).(903294,56) - (1178,8)^2\}}}$$

$$r_{XY} = \frac{177337,5 - 540361,92}{\sqrt{\{(281893,8) - (210130,56)\} \{(9032945,6) - (1389569,44)\}}}$$

$$r_{XY} = \frac{-362824,42}{\sqrt{\{71763,24\} \{7643376,16\}}}$$

$$r_{XY} = \frac{-362824,42}{1740615,22}$$

$$r_{XY} = -0.4898$$

Hasil korelasi antara daya tahan otot tungkai dengan kemampuan renang 25 meter gaya dada melalui perhitungan diperoleh hasil koefisien korelasi = 0.4898.

Dengan hasil tersebut maka daya tahan otot tungkai memiliki hubungan yang kuat dengan kemampuan renang 25 meter gaya dada pada mahasiswi penjaskesrek angkatan 2010 Universitas Lampung

**Data Push Up yang telah diubah ke dalam bentuk baku**

$\pi$  = rerata

**SD = Standar Deviasi**

$$SD = \frac{(x - \pi)^2}{n}$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD}$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}}$$

Data 1. Ani Setiawati (26)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(26 - 26,5)^2}{10} = 0,025$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{26 - 26,5}{0,025} = -20$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-20) = 30$$

Data 2. Azry Ayu (38)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(38 - 26,5)^2}{10} = 13,22$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{38 - 26,5}{13,22} = 0,87$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (0,87) = 58,7$$

Data 3. Desna Dwi (38)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(38 - 26,5)^2}{10} = 13,22$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{38 - 26,5}{13,22} = 0,87$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (0,87) = 58,7$$

Data 4. Febri Kartika (20)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(20 - 26,5)^2}{10} = 4,225$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{20 - 26,5}{4,225} = -1,59$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-1,59) = 34,1$$

Data 5. Karina Oktavia (14)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(14 - 26,5)^2}{10} = 15,625$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{14 - 26,5}{15,625} = -0,80$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-0,80) = 42$$



Data 6. I Made (30)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(30 - 26,5)^2}{10} = 1,225$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{30 - 26,5}{1,225} = 2,85$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (2,85) = 78,5$$

Data 7. Nia Rahmawati (20)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(20 - 26,5)^2}{10} = 4,225$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{20 - 26,5}{4,225} = -1,59$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-1,59) = 34,1$$

Data 8. Noni (21)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(21 - 26,5)^2}{10} = 3,025$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{21 - 26,5}{3,025} = -1,81$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-1,8) = 32$$

Data 9. Novi Susanti (35)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(35 - 26,5)^2}{10} = 7,225$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{35 - 26,5}{7,225} = 1,17$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (1,17) = 61,7$$

Data 10. Rohimah (23)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(23 - 26,5)^2}{10} = 1,225$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{23 - 26,5}{1,225} = -2,85$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-2,85) = 21,5$$

**Data Skuat Jump yang telah diubah ke dalam bentuk baku**

$\pi$  = rerata

**SD = Standar Deviasi**

$$SD = \frac{(x - \pi)^2}{n}$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD}$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}}$$

Data 1 Ani Setiawati (20)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(20 - 24,9)^2}{10} = 2,401$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{20 - 24,9}{2,401} = -2,04$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-2,04) = 29,6$$

Data 2. Azry Ayu (32)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(32 - 24,9)^2}{10} = 5,041$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{32 - 24,9}{5,401} = 1,40$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (1,40) = 64$$

Data 3. Desna Dwi (30)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(30 - 24,9)^2}{10} = 2,601$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{30 - 24,9}{2,601} = 1,96$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (1,96) = 69,6$$

Data 4. Febri Kartika (24)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(24 - 24,9)^2}{10} = 8,1$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{24 - 24,9}{8,1} = -0,11$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-0,11) = 39$$

Data 5. Karina Oktavia (21)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(21 - 24,9)^2}{10} = 1,52$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{21 - 24,9}{1,52} = -2,56$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-2,56) = 23,5$$

Data 6. I Made (29)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(29 - 24,9)^2}{10} = 1,68$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{29 - 24,9}{1,68} = 2,44$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (2,44) = 74,4$$

Data 7. Nia Rahmawati (15)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(15 - 24,9)^2}{10} = 9,8$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{15 - 24,9}{9,8} = -1,01$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-1,01) = 39,8$$

Data 8. Noni (22)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(22 - 24,9)^2}{10} = 0,84$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{22 - 24,9}{0,84} = -3,45$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-3,45) = 15,5$$

Data 9. Novi Susanti (32)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(32 - 24,9)^2}{10} = 5,041$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{32 - 24,9}{5,401} = 1,40$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (1,40) = 64$$

Data 10. Rohimah (24)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(24 - 24,9)^2}{10} = 8,1$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{24 - 24,9}{8,1} = -0,11$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-0,11) = 39$$

Data hasil tes renang diubah ke dalam bentuk baku

Data 1. Ani Setiawati (37,15)

$$SD = \frac{(\bar{x} - \pi)^2}{n} = \frac{(37,15 - 36,75)^2}{10} = 0,016$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{37,15 - 36,75}{0,016} = -2,5$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-2,5) = 25$$

Data 2. Azry Ayu (33,05)

$$SD = \frac{(\bar{x} - \pi)^2}{n} = \frac{(33,05 - 36,75)^2}{10} = 1,36$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{33,05 - 36,75}{1,36} = -2,72$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-2,72) = 22,8$$

Data 3. Desna Dwi (33,60)

$$SD = \frac{(\bar{x} - \pi)^2}{n} = \frac{(33,60 - 36,75)^2}{10} = 0,95$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{33,60 - 36,75}{0,95} = -3,25$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-3,25) = 17,5$$

Data 4. Febri Kartika (38,07)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(38,07 - 36,75)^2}{10} = 0,17$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{38,07 - 36,75}{0,17} = 7,76$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (7,76) = 127$$

Data 5. Karina Oktavia (40,23)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(40,23 - 36,75)^2}{10} = 1,21$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{40,23 - 36,75}{1,21} = 2,87$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (2,87) = 78,7$$

Data 6. I Made (36,33)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(36,33 - 36,75)^2}{10} = 0,017$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{36,33 - 36,75}{0,017} = -24,7$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-24,7) = -197$$



Data 7. Nia Rahmawati (39,02)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(39,02 - 36,75)^2}{10} = 0,51$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{39,02 - 36,75}{0,51} = 4,45$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (4,45) = 94,5$$

Data 8. Noni (36,87)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(36,87 - 36,75)^2}{10} = 0,0014$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{36,87 - 36,75}{0,0014} = 85,7$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (85,7) = 907$$

Data 9. Novi Susanti (34,11)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(34,11 - 36,75)^2}{10} = 0,69$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{34,11 - 36,75}{0,69} = -3,82$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (-3,82) = 11,8$$

Data 10. Rohimah (39,09)

$$SD = \frac{(x - \pi)^2}{n} = \frac{(39,09 - 36,75)^2}{10} = 0,547$$

$$Z_{\text{skor}} = \frac{x - \pi}{SD} = \frac{39,09 - 36,75}{0,547} = 4,27$$

$$T_{\text{skor}} = 50 + 10 \cdot Z_{\text{skor}} = 50 + 10 (4,27) = 92,7$$

Gambar 2 : Daya Tahan Otot Lengan diperlukan dalam Renang Gaya Dada



Gambar 3 : Daya Tahan Otot Lengan diperlukan dalam Renang Gaya Dada



Gambar 4 : Daya Tahan Otot Tungkai diperlukan dalam Renang Gaya Dada



**Gambar 8. Foto saat pemanasan atas**



**Gambar 9. Saat melakukan pemanasan bawah**





**Gambar 10. Saat pengambilan data Push Up**



**Gambar 11. Saat Pengambilan data Push Up**





**Gambar 12. Saat pengambilan data Squat Jump**



**Gambar 13. Saat pengambilan data Squat Jump**



**Gambar 14. Saat pengambilan data Squat Jump**





**Gambar15. Saat pemanasan di dalam kolam**



**Gambar 16. Saat Pengambilan data renang gaya dada**



**Gambar 17. Saat pengambilan data renang gaya dada**



**Gambar 18. Saat Mencatat waktu renang**



**Gambar 19. Saat pengambilan waktu renang**





**Gambar 20. Foto bersama mahasiswa penjaskes**



**Gambar 21. Foto bersama mahasiswa penjaskes**

