

kelompok aerobik 30 % dari beban maksimum

Lampiran 1. Data Dasar Penelitian

Urt.	N a m a	Umur Tahun	Berat Badan Kg.	Tinggi Badan Cm	Daya ledak Kg-m/sec			Kekuatan / kg			Paha kanan / cm			Paha kiri / cm			Betis kanan / cm			Betis kiri / cm		
					Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2
1	M. Haendri	18	68.8	178.4	113.4	119.2	126.4	134.0	181.0	243.2	33.66	35.96	41.11	33.72	40.46	41.68	26.31	25.40	29.44	29.99	27.81	30.02
2	Ardiana	18	64.7	172.4	112.2	116.3	118.4	125.3	235.2	284.0	33.21	37.33	39.81	32.76	36.17	38.95	23.66	23.86	25.34	23.66	23.86	27.14
3	Arha	19	62.2	168.6	108.4	110.5	112.5	110.2	163.2	191.1	31.38	35.70	35.90	30.78	35.02	33.15	23.29	23.48	23.61	23.29	23.48	23.61
4	Jefi	18	54.5	174.2	87.2	91.2	91.2	160.0	195.0	213.0	32.91	33.52	37.46	32.09	32.77	37.39	23.61	22.91	25.99	22.89	22.37	25.99
5	Arma	19	61.0	170.7	102.2	103.2	105.4	135.1	215.2	262.0	30.42	35.29	40.05	29.88	34.74	40.20	23.66	23.73	26.29	23.25	23.73	25.99
6	Juhu	19	56.0	163.2	96.1	100.3	102.2	135.2	195.3	213.2	32.70	32.76	33.79	32.12	32.57	33.60	22.78	22.91	22.91	23.23	23.74	23.74
7	Amir	19	53.5	167.5	90.4	92.4	93.5	200.0	240.0	252.1	29.56	29.82	30.01	29.18	29.82	30.65	29.92	21.63	22.33	21.56	21.69	22.33
8	Hari	20	57.7	167.6	91.3	94.2	96.2	164.2	177.1	213.2	34.40	35.63	35.76	34.13	35.02	35.22	23.54	25.91	28.04	24.40	26.52	28.04
9	Luk	20	59.8	167.9	88.2	93.2	96.3	130.1	245.1	260.0	29.88	30.12	30.66	31.93	32.12	32.51	22.92	23.28	24.83	23.22	23.22	24.76
10	M. Idris	20	48.8	168.8	77.2	79.3	80.4	121.2	150.4	193.5	33.13	33.89	34.73	33.66	34.35	35.64	24.09	24.85	25.23	23.50	25.00	25.23
11	M. Ran	19	50.8	164.5	83.4	87.5	88.4	120.3	177.3	213.0	31.01	32.50	34.70	30.73	31.89	34.34	22.46	23.32	23.68	22.82	23.32	23.61
12	Rus	22	57.5	166.0	90.2	92.4	93.5	185.2	191.1	203.1	32.57	32.76	33.21	32.38	32.70	33.15	22.78	22.78	23.48	22.33	22.33	23.61
13	Sam	20	57.7	166.5	90.5	95.5	95.5	148.1	208.1	224.0	30.72	31.44	33.85	30.72	31.44	33.72	21.54	21.90	23.36	21.54	21.72	23.36
14	Suk	18	52.3	165.3	77.3	81.4	86.2	102.5	164.2	207.4	31.10	32.70	35.15	30.27	32.70	35.08	25.23	26.06	26.29	25.76	26.52	26.52
15	Iraw	18	52.7	161.5	84.4	86.2	88.2	109.2	146.5	197.2	30.15	30.36	32.44	30.12	30.36	32.38	23.59	24.41	24.41	25.09	25.36	25.36
16	Yand	20	54.0	165.7	83.5	87.3	88.3	101.2	147.2	161.5	29.16	31.68	31.93	28.32	30.78	31.80	20.99	22.91	23.05	20.92	22.37	23.05
17	Firri	20	51.5	159.5	85.3	87.4	88.4	135.3	180.3	229.1	31.74	36.64	37.22	30.97	36.72	37.00	22.37	24.26	24.69	22.30	24.40	24.91
18	Petr	20	53.2	158.7	85.2	86.5	90.3	141.2	177.4	224.0	28.92	31.68	32.12	28.50	30.65	31.10	22.52	22.72	24.27	22.84	23.16	25.02
19	Kame	20	52.5	160.0	72.5	77.5	81.4	220.0	253.2	285.0	30.42	30.72	33.53	29.22	30.12	33.02	20.16	20.94	22.59	19.98	20.94	22.59
20	M. Naj	19	52.7	156.3	85.2	86.5	87.5	128.5	157.0	195.0	30.42	32.70	32.83	29.58	32.70	32.76	20.76	22.46	22.65	20.46	22.46	22.65
21	Yud	20	54.4	161.0	84.5	87.2	90.3	134.2	184.2	244.0	30.48	30.78	31.62	30.36	31.26	31.38	19.74	22.84	23.61	20.16	21.69	21.82
22	Hari	21	48.4	156.5	79.2	82.3	82.5	120.5	187.2	208.3	31.21	33.48	33.91	29.71	32.11	32.61	20.73	23.68	23.85	20.41	23.68	23.90
23	M. Idr	19	50.7	159.0	75.4	78.5	79.2	100.5	146.1	168.4	31.48	33.93	35.92	31.74	33.93	35.49	20.99	22.84	24.19	21.05	22.08	23.83
24	Jus	20	50.2	162.5	77.5	78.5	79.5	95.5	145.3	165.5	28.26	28.68	30.97	29.34	29.58	31.68	22.37	22.57	24.04	22.30	22.57	27.97
25	Isr	19	55.7	162.8	84.3	87.4	88.3	110.4	170.3	189.3	33.04	36.43	36.64	33.72	36.50	36.57	21.21	23.11	23.32	21.28	23.25	23.40
26	Sufr	22	49.3	158.7	76.4	78.3	79.2	115.1	164.3	209.1	32.09	32.16	34.34	32.23	32.43	34.48	22.30	23.97	24.33	22.03	23.97	24.26
27	M. Ami	22	48.5	156.5	74.3	76.2	77.5	141.3	179.1	203.0	31.48	32.09	34.41	31.89	32.09	34.41	23.54	23.68	24.04	22.89	23.32	23.68
28	M. An	20	50.5	152.8	75.5	78.5	84.5	110.1	148.2	166.4	28.38	31.48	31.87	28.68	30.84	31.55	21.82	22.14	23.73	21.56	21.82	23.39
29	Abd. Wah	20	49.2	152.5	76.2	78.4	78.5	111.2	168.0	187.2	28.74	30.78	31.48	28.14	30.46	31.29	22.03	22.37	22.84	21.55	21.69	22.23
30	Hasar	18	45.7	150.8	72.3	75.3	77.5	119.3	161.1	183.3	29.76	30.14	30.59	27.36	29.63	30.27	20.92	23.68	24.42	20.22	22.96	23.54

kelompok anaerobik 30 % dari beban maksimum

Lanjutan lampiran : 1. Data Dasar Penelitian

No. Urt.	N a m a	Umur Tahun	Berat Badan Kg.	Tinggi Badan Cm	Daya ledak Kg-m/sec			Kekuatan / Kg			Paha kanan / cm			Paha kiri / cm			Betis kanan / cm			Betis kiri / cm		
					Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2
1	Sul	18	56.3	174.2	98.6	100.4	102.3	129.2	150.4	215.2	35.79	37.31	37.92	36.17	36.25	37.01	24.39	25.38	25.76	24.92	25.38	26.22
2	Ari	20	64.2	169.0	104.2	110.4	112.6	130.5	135.2	232.0	29.82	33.93	34.27	29.22	33.86	34.13	22.50	23.32	24.75	22.84	23.25	24.62
3	Firp	22	51.5	162.3	93.3	95.5	96.7	108.3	130.5	141.0	33.59	33.93	33.93	32.43	33.04	33.04	22.37	23.32	23.66	21.89	22.57	22.98
4	Yusr	19	66.7	170.8	108.4	112.2	114.2	138.7	226.3	257.2	33.48	38.35	39.02	32.70	37.87	38.48	24.82	25.70	25.97	24.61	24.75	25.22
5	Andi	22	55.2	165.0	93.3	94.5	98.3	123.5	142.4	186.4	32.77	33.25	33.93	31.41	32.30	33.04	22.16	22.30	22.98	22.03	22.30	22.98
6	Zain	19	50.0	167.5	76.2	83.4	88.1	178.4	220.5	235.5	27.66	33.40	33.69	27.06	32.97	33.04	23.25	24.62	29.98	22.78	24.55	24.98
7	Ed	18	60.2	165.5	97.4	100.2	103.4	109.2	232.6	275.0	32.25	33.21	35.56	31.61	32.06	35.49	25.48	25.77	27.43	25.34	25.70	27.43
8	Pai	18	53.0	167.2	82.5	85.3	87.2	101.6	125.4	245.3	30.91	31.74	31.93	30.33	31.55	31.80	24.91	25.05	25.77	24.91	25.05	25.63
9	Raf	19	55.7	163.0	91.3	94.5	95.4	121.3	149.0	245.4	35.42	35.92	36.86	35.35	35.78	36.64	22.46	23.47	23.68	22.46	23.47	23.54
10	Kas	21	60.0	166.5	98.3	103.1	104.1	143.0	170.3	207.6	32.44	34.18	35.49	33.08	35.42	35.83	24.00	24.54	25.09	24.68	24.75	25.09
11	Ira	19	50.0	162.5	77.4	82.6	84.5	79.6	110.5	147.4	28.86	30.12	30.48	28.68	29.04	29.52	22.30	23.32	23.73	22.03	23.05	23.59
12	Bah	22	55.2	166.5	86.3	88.5	90.3	165.2	210.0	252.3	28.08	31.10	32.12	27.42	31.16	31.93	23.52	25.05	25.15	23.32	24.84	24.98
13	Vah	20	50.5	163.0	80.2	81.5	83.6	100.4	121.6	175.5	27.36	28.08	28.68	26.94	27.18	28.02	21.69	22.37	23.05	21.69	22.37	23.05
14	Syame	19	58.0	162.7	93.5	99.2	102.4	145.3	195.2	205.0	31.08	33.79	34.49	29.34	32.13	33.40	24.75	26.49	27.28	23.86	26.35	27.21
15	Syahi	22	50.7	162.8	70.3	73.5	75.2	127.5	165.3	217.3	30.87	31.14	31.89	30.12	31.14	31.82	22.39	22.82	23.54	22.75	23.47	23.47
16	Rah	21	55.0	163.5	89.6	93.4	94.2	90.0	150.0	220.2	33.93	37.15	37.65	33.38	36.07	37.29	22.98	24.98	25.70	22.78	24.91	25.70
17	Abd. Wal	18	46.0	164.7	70.5	72.2	75.0	86.4	135.2	182.5	26.88	29.50	31.23	26.64	30.01	31.10	22.24	23.54	24.40	22.03	23.32	24.33
18	Musli	18	50.5	165.5	78.4	82.4	83.2	105.5	132.3	170.4	26.58	32.54	33.76	26.76	32.97	33.40	20.12	21.74	22.82	20.12	21.74	22.82
19	Mirza	18	48.5	163.8	71.6	80.5	81.4	110.4	140.5	190.3	26.88	27.30	28.08	26.76	27.48	27.84	21.37	22.01	22.97	20.92	21.37	22.27
20	Rahma	20	54.0	169.8	79.3	89.2	91.6	110.0	160.4	210.2	32.77	35.35	35.78	31.41	35.06	35.42	23.61	24.33	25.12	23.54	24.33	25.05
21	Ishra	20	59.0	166.2	86.2	89.3	92.0	140.2	175.0	205.0	37.77	37.92	38.68	36.32	36.63	37.77	27.96	28.72	29.33	27.81	28.57	29.33
22	Fair	19	54.0	163.5	81.3	88.6	91.3	90.5	160.3	185.4	28.92	31.61	34.06	29.16	31.68	34.47	20.70	22.59	22.91	20.52	22.52	22.91
23	Abdul	20	55.5	163.3	83.3	87.1	91.4	102.4	157.5	182.5	28.38	31.10	31.87	27.72	30.65	31.10	22.30	24.33	25.12	22.16	24.19	25.05
24	Har	21	54.5	164.2	79.2	83.4	85.0	105.5	176.0	235.2	29.37	31.75	33.76	29.05	31.34	33.33	23.32	25.23	25.68	23.11	24.92	25.68
25	Harli	20	54.2	162.5	75.4	77.6	81.1	141.2	157.6	230.0	31.55	35.71	36.57	30.84	35.64	36.64	23.93	25.48	26.49	23.86	25.77	26.49
26	Ridha	22	56.0	166.5	94.3	97.2	100.2	172.3	184.5	203.4	34.54	34.81	35.97	33.79	41.00	35.15	24.98	25.84	26.28	24.84	25.84	26.28
27	Puc	22	54.8	165.3	84.5	88.3	90.0	156.4	231.2	257.2	32.70	35.90	36.51	32.70	35.63	36.24	23.80	26.18	27.06	23.80	26.18	26.86
28	Tel	20	64.0	163.5	107.1	110.4	112.5	162.2	192.0	246.0	35.49	35.90	36.65	35.42	35.76	36.51	26.71	27.21	27.64	26.71	27.14	27.64
29	Syah	22	49.8	160.5	85.2	87.4	88.6	112.5	129.6	170.0	36.25	37.16	37.77	36.55	37.39	37.84	23.86	24.09	25.00	23.86	24.01	24.92
30	Anwa	21	53.3	164.3	74.6	76.4	77.5	198.2	230.0	263.2	34.70	34.92	35.78	34.77	34.92	35.71	23.25	23.47	24.40	23.18	23.40	24.26

kelompok aerobik 50 % dari beban maksimum

Lanjutan lampiran 1. Data Dasar Penelitian

No. Urt.	N a m a	Umur Tahun	Berat Badan Kg.	Tinggi Badan Cm	Days ledak Kg-m/sec			Kekuatan / Kg			Paha kanan / cm			Paha kiri / cm			Betis kanan / cm			Betis kiri / cm		
					Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2
1	Dir	21	61.5	174.2	109.2	109.4	109.3	140.5	179.2	250.0	45.10	45.19	45.78	43.68	44.01	44.26	31.16	31.41	31.66	31.16	31.41	31.66
2	Kahar	19	53.8	161.7	101.5	102.3	103.0	110.1	190.0	265.0	40.88	41.36	42.08	39.76	40.56	41.52	25.76	26.06	26.52	25.23	25.76	26.37
3	Humar	21	60.3	170.5	102.4	104.3	106.2	112.3	184.0	240.2	39.59	39.90	40.12	38.91	39.82	40.12	26.06	26.44	27.20	25.99	26.52	26.90
4	Nico	22	50.2	160.0	86.6	89.0	90.0	160.2	165.3	220.3	33.97	34.27	34.73	33.82	34.27	34.58	23.71	23.86	24.85	23.48	24.24	25.00
5	Sumar	19	53.7	170.5	90.3	91.5	95.2	82.6	136.6	195.3	33.84	34.41	35.20	33.76	34.20	35.06	24.55	24.84	24.98	23.83	24.19	24.33
6	Muh.Ali	20	65.7	170.0	107.2	108.4	110.3	171.1	175.0	220.2	42.48	42.56	43.16	41.64	41.95	42.40	29.48	30.09	30.24	28.50	29.56	30.02
7	Oktav	20	64.3	172.0	101.4	105.3	106.0	143.3	167.2	183.4	37.00	37.36	37.58	36.64	37.00	37.29	25.12	25.48	25.84	23.90	24.62	24.98
8	Ilhor	19	54.2	169.7	88.4	90.6	91.2	120.4	124.1	183.0	37.68	39.28	39.52	36.56	38.80	38.96	26.32	26.72	27.04	26.00	26.80	27.04
9	Andi Hakt	19	55.5	162.3	97.5	98.4	100.0	135.2	160.4	270.0	39.14	39.82	40.12	38.07	38.91	39.14	27.05	27.20	27.51	26.52	26.90	27.28
10	Musaf	20	61.5	170.5	97.2	100.4	100.6	163.1	193.3	250.2	37.22	37.36	37.87	37.08	37.15	38.08	27.28	27.50	28.00	27.43	27.72	27.93
11	Ihor	18	55.7	164.8	94.3	94.5	97.2	130.5	184.3	245.0	36.63	36.68	37.01	36.40	36.63	36.78	25.38	26.14	26.44	25.38	26.14	26.44
12	M.Basri	20	61.7	170.5	81.6	101.0	101.2	135.3	146.5	170.6	37.58	38.01	38.73	37.80	37.94	38.80	25.05	25.63	26.56	24.91	25.63	26.35
13	Subak	18	53.5	162.5	90.4	91.5	92.3	139.2	219.3	245.0	38.68	40.05	40.81	38.15	37.51	40.35	26.22	26.98	27.74	26.14	26.90	27.66
14	Firma	19	51.0	160.5	87.4	90.3	91.4	64.6	125.0	180.0	34.84	35.20	35.35	34.77	34.99	35.13	23.61	24.04	24.40	22.82	23.32	23.68
15	Misbal	18	54.7	160.5	89.3	91.3	91.3	127.5	161.2	180.3	38.30	39.29	39.44	37.01	38.38	38.45	25.00	25.00	25.00	25.00	25.00	25.00
16	Muh.Dah	19	51.7	162.3	80.2	82.5	86.2	135.2	163.4	170.5	32.54	33.69	33.76	32.54	33.33	33.76	22.17	22.89	23.61	21.88	22.60	23.32
17	Nasar	20	55.7	163.2	90.3	91.2	92.0	139.3	144.5	190.6	36.14	36.28	36.36	35.49	35.78	35.85	24.19	24.26	24.40	23.35	23.32	23.16
18	A.Rahu	19	56.2	165.0	87.5	91.0	93.0	189.4	199.0	212.2	39.21	39.44	40.05	38.30	38.53	39.29	27.89	28.04	28.65	27.05	27.28	27.81
19	M.Ali	19	46.5	160.2	75.4	80.2	81.4	89.5	160.2	187.0	33.69	34.05	34.48	32.83	33.69	34.27	23.18	23.54	24.04	22.75	23.47	24.26
20	Ibr	19	50.2	160.5	79.0	81.4	85.3	122.3	130.4	160.4	37.36	38.32	39.12	36.96	37.68	38.32	27.52	27.84	28.32	27.52	27.84	28.32
21	Nurj	19	50.5	160.2	79.4	81.0	82.2	136.4	176.0	185.2	35.79	36.63	37.16	35.64	35.87	36.40	23.48	24.24	24.85	23.48	24.24	24.85
22	Sahar	21	52.2	162.3	79.2	80.5	82.4	95.3	120.0	145.1	34.47	34.61	36.64	33.11	33.25	35.06	21.89	22.03	23.32	21.89	22.03	23.32
23	Thom	19	51.5	157.7	79.5	84.2	86.2	152.2	194.1	240.0	34.99	35.71	35.92	35.64	35.71	35.91	25.56	24.33	24.84	23.97	24.33	24.84
24	Muh.Idris	21	78.3	175.3	122.2	128.0	128.0	168.2	202.0	250.0	38.89	39.91	40.73	38.89	39.98	40.73	21.48	21.96	22.98	21.48	21.96	22.91
25	Satr	19	49.2	157.5	80.6	83.4	84.6	171.3	198.0	198.3	34.27	35.20	35.49	34.27	35.20	35.49	23.90	24.98	25.34	23.83	24.98	25.34
26	Rah	18	67.3	174.2	106.3	112.5	112.5	121.0	175.3	201.2	37.94	38.66	39.52	37.51	38.80	39.16	25.99	27.14	27.93	25.84	26.56	27.28
27	A.M.Idris	21	52.7	162.2	78.5	79.0	79.4	122.2	132.4	162.6	32.51	33.08	33.72	32.51	33.08	33.72	21.56	22.01	22.92	21.63	22.01	22.97
28	Ilh	19	51.3	163.7	83.5	88.2	88.4	144.1	174.2	200.0	33.11	33.79	34.61	32.43	33.18	34.54	21.42	22.37	23.05	21.42	22.23	22.98
29	Mak	22	50.7	152.7	84.3	85.0	86.2	125.3	135.0	156.4	36.93	37.69	38.60	32.84	37.46	38.53	24.62	25.38	27.13	24.54	25.30	26.98
30	Must	21	58.5	163.5	93.3	93.5	93.5	113.0	121.3	137.5	37.08	37.77	38.60	37.08	37.84	38.53	26.67	27.13	27.81	26.75	27.05	27.96

kelompok anaerobik 50 % dari beban maksimum

Lanjutan lampiran 1. Data Dasar Penelitian

No. Urt.	Nama	Umur Tahun	Berat Badan Kg.	Tinggi Badan Cm	Daya ledak Kg-m/sec			Kekuatan / Kg			Paha kanan / cm			Paha kiri / cm			Betis kanan / cm			Betis kiri / cm		
					Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2
1	Laode	22	69.4	180.0	120.3	122.0	121.5	115.5	284.0	297.2	41.11	43.01	44.74	48.35	42.33	43.34	28.04	28.95	29.71	27.28	28.80	29.56
2	Wajid	21	55.5	170.2	92.4	94.3	97.2	100.0	183.0	245.2	35.06	36.86	37.94	34.41	36.79	37.80	24.12	24.91	26.35	23.40	24.26	25.99
3	Ridwan	20	57.0	172.0	99.6	104.4	106.2	200.0	260.0	300.0	37.84	39.06	40.88	36.93	38.45	39.74	25.38	26.29	27.05	25.23	26.22	26.98
4	Fransiska	21	60.5	166.2	105.2	111.0	112.4	150.2	225.0	241.1	36.36	39.54	39.16	35.92	37.15	38.73	24.40	24.91	25.70	24.40	24.55	25.41
5	Yusri	18	61.5	171.8	106.4	112.3	114.2	110.4	120.5	157.0	34.13	35.63	37.80	33.86	34.74	36.93	24.41	26.13	27.07	23.73	25.48	26.56
6	Ashari	19	59.0	170.2	94.5	95.3	112.0	138.5	255.2	295.0	38.80	40.32	42.16	38.64	40.08	41.92	27.92	28.08	29.36	27.12	28.08	29.36
7	Bakri	22	59.1	168.2	98.6	102.3	106.3	119.0	182.3	197.0	36.07	37.22	38.80	35.85	37.87	38.73	25.41	26.35	27.21	25.27	26.06	26.92
8	Muh.Ak	20	50.2	162.4	88.4	92.1	95.0	101.3	154.5	186.2	36.72	37.36	38.24	36.56	37.36	38.24	25.52	26.32	26.96	25.50	26.24	26.92
9	I.K.Yulianto	21	60.3	172.2	97.2	100.5	102.2	178.2	280.0	285.2	36.86	37.72	38.66	36.57	37.29	38.66	24.40	25.12	25.84	24.40	25.12	25.84
10	Ihsan	20	55.2	162.0	90.1	93.4	98.2	86.4	179.2	257.0	36.32	37.24	37.92	35.26	36.25	37.69	25.99	26.98	28.04	25.61	26.75	28.04
11	Stephanus	18	52.0	160.1	90.3	90.2	95.4	145.0	175.0	262.0	39.04	39.44	40.56	38.00	39.84	40.72	27.68	28.48	29.28	27.04	27.92	29.36
12	Hasbi	19	48.4	160.2	81.4	83.2	86.5	102.2	165.0	285.0	34.42	36.10	37.84	34.35	35.94	37.77	23.86	24.85	25.76	23.32	24.16	25.53
13	Masruki	20	60.3	170.0	90.4	93.5	95.2	122.2	159.3	195.2	40.32	41.92	43.12	39.36	41.52	42.96	30.24	31.04	31.92	29.76	31.04	31.92
14	Hermawan	21	59.2	164.8	93.2	98.0	102.3	130.5	172.4	195.2	39.21	40.66	41.57	38.83	40.58	41.49	27.66	28.27	29.41	27.43	28.27	29.33
15	Rusli	20	50.5	161.4	83.3	87.0	99.3	126.3	168.4	207.0	36.56	37.76	39.36	35.92	37.12	38.24	26.80	27.60	28.64	26.64	27.68	28.48
16	Faiyaz	21	55.5	162.7	90.4	93.2	95.0	154.3	199.5	241.0	37.77	39.14	39.97	37.16	38.68	40.20	27.89	28.19	29.41	27.20	28.27	29.41
17	Rizki	18	47.4	160.7	81.2	85.6	87.0	75.0	119.0	164.0	36.08	37.92	39.84	35.92	37.44	39.84	26.48	27.68	28.48	26.08	27.84	28.64
18	Ariyanto	20	55.0	163.5	90.2	92.3	96.0	130.0	163.2	185.5	38.83	39.82	40.66	38.60	39.82	40.88	27.28	28.27	29.33	26.52	27.96	29.10
19	Hardi	21	70.8	161.5	101.3	106.3	109.2	208.0	252.2	280.2	43.39	44.15	45.37	43.39	44.00	45.37	29.71	30.32	31.38	29.71	30.32	31.38
20	Murdi	21	50.0	163.2	81.5	81.2	83.4	143.2	224.5	270.0	40.23	41.07	41.91	39.39	40.57	41.91	28.22	29.06	29.90	27.80	28.72	29.65
21	Kaharudin	22	54.3	162.6	86.2	102.0	106.5	87.5	132.0	156.4	38.96	40.72	41.52	38.16	39.44	41.36	27.12	27.76	28.64	26.48	27.68	28.64
22	Muh.Hamdan	19	45.1	160.3	85.3	87.2	92.5	150.4	155.0	185.2	33.28	34.73	35.64	33.06	34.04	35.18	23.71	24.62	25.61	23.71	24.54	25.61
23	Abd.Hafid	19	55.0	160.7	87.4	91.5	96.6	118.3	166.4	255.2	38.68	39.44	40.05	38.30	39.29	39.97	25.38	26.29	27.20	25.15	26.22	27.05
24	Akril	19	47.0	160.5	70.2	73.2	76.3	105.2	150.3	199.0	34.88	35.87	37.08	34.35	35.11	36.93	24.24	24.92	25.61	23.71	24.85	25.61
25	Azwani	19	48.1	163.8	71.1	73.0	79.3	70.5	121.5	176.3	31.96	33.04	33.86	31.82	32.50	33.59	21.82	22.64	23.52	21.69	22.23	23.25
26	M.Raihan	19	70.0	176.2	100.2	107.3	118.0	259.0	287.2	300.0	38.08	39.16	40.44	37.88	38.97	40.12	25.08	25.98	26.75	25.08	25.98	26.62
27	Akhmad	18	50.7	162.2	77.5	80.2	82.5	119.0	134.3	175.2	38.30	40.12	40.88	37.92	39.14	40.12	27.13	28.04	28.80	26.52	27.66	28.42
28	Tahar	21	62.0	170.3	98.3	102.1	106.2	145.2	159.4	200.0	39.90	40.96	41.34	39.97	40.81	41.64	26.37	27.28	28.04	26.22	27.05	28.04
29	Irfan	21	64.0	180.0	97.4	104.3	107.4	166.2	180.2	199.4	35.71	36.57	37.36	35.71	36.57	37.36	24.84	25.70	26.49	24.69	25.70	26.42
30	Tasri	21	58.5	171.2	91.5	96.1	99.3	185.2	189.0	230.0	36.86	37.69	38.68	37.77	38.53	39.44	24.77	25.68	26.37	24.77	25.46	26.29



kelompok kontrol

Lanjutan lampiran 1. Data Dasar Penelitian

No. Urt.	N a m a	Umur Tahun	Berat Badan Kg.	Tinggi Badan Cm	Daya ledak Kg-m/sec			Kekuatan / Kg			Paha kanan / cm			Paha kiri / cm			Betis kanan / cm			Betis kiri / cm		
					Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2	Pr T	PT 1	PT 2
1	Muh.	20	55.2	163.1	88.2	88.0	89.0	185.2	197.0	198.0	37.58	37.51	37.58	37.36	37.51	37.58	24.55	24.69	24.84	23.97	24.26	24.40
2	A.Hi	21	60.3	172.0	104.0	106.2	106.0	185.0	191.2	191.3	34.92	34.99	35.13	34.92	35.06	35.20	24.12	24.26	24.40	24.12	24.33	24.40
3	Bahart	20	56.4	164.3	89.3	90.2	93.0	155.3	160.0	162.0	35.35	35.49	35.64	34.70	34.84	34.99	24.84	24.05	25.27	24.84	24.94	24.27
4	Sarf.	21	50.3	170.2	83.1	85.0	86.2	145.3	164.2	164.0	31.62	31.75	32.02	30.87	31.07	31.41	21.96	22.30	22.57	21.42	21.55	21.82
5	Anw	20	55.0	164.2	87.0	94.2	94.3	130.0	134.2	136.3	35.42	35.78	35.92	35.42	35.71	35.92	23.83	23.97	24.12	23.61	23.68	23.90
6	Abd.Har	20	65.1	166.0	109.2	109.0	109.5	180.0	185.3	187.2	33.60	33.66	33.72	33.21	33.34	33.47	22.72	22.78	22.78	22.72	22.72	22.72
7	Nasru	20	52.2	162.3	86.2	86.3	88.0	119.2	120.0	122.2	39.90	40.12	40.12	39.82	39.90	39.90	24.70	24.70	24.70	24.47	24.74	24.74
8	Achmr	22	59.0	166.2	90.3	93.2	93.3	120.4	127.0	127.2	37.51	37.65	37.65	37.08	37.29	37.29	24.69	24.98	24.98	24.62	24.91	24.91
9	Muh.Sai.	21	63.5	175.1	112.0	114.2	115.2	110.5	125.2	125.0	36.93	37.00	39.06	36.57	36.57	38.60	23.90	23.90	25.23	23.90	23.90	25.23
10	A.Nauli	20	53.0	160.0	98.4	98.3	100.0	110.0	124.0	125.4	36.86	36.93	36.93	36.86	36.93	36.93	25.23	25.23	25.23	25.23	25.23	25.23
11	Heria	20	56.4	164.2	87.5	88.4	88.4	190.2	193.3	193.5	33.76	33.91	33.98	32.97	33.04	33.04	21.96	22.03	22.03	21.96	22.03	22.03
12	Dani.	21	54.1	157.5	77.2	77.3	77.4	195.5	197.0	197.2	28.48	28.92	28.92	27.84	27.96	27.96	19.26	19.32	19.39	19.26	19.32	19.39
13	Syeh	22	50.4	160.0	92.2	93.0	94.0	190.0	194.3	194.3	29.63	29.69	29.82	29.18	29.24	29.37	20.16	20.22	20.22	20.16	20.22	20.22
14	Jama.	20	55.0	162.3	90.5	93.4	93.0	185.3	187.4	187.5	34.92	35.35	35.35	34.56	34.70	34.70	23.18	23.25	23.25	23.11	23.18	23.18
15	Dart	20	54.4	165.0	85.4	88.2	90.2	180.2	182.2	182.2	37.29	37.36	37.36	35.85	36.14	36.14	23.54	23.68	23.68	23.32	23.40	23.40
16	Lol	22	60.0	173.3	95.3	98.2	99.4	180.0	183.1	183.4	30.45	30.66	30.66	30.54	30.66	30.66	20.82	20.82	20.82	20.82	20.82	20.82
17	Hida	20	55.3	166.4	92.3	93.5	94.2	170.2	173.0	174.0	35.78	35.92	35.92	35.64	35.78	35.78	25.20	25.34	25.34	25.20	25.34	25.34
18	Abd.Ma	21	65.0	155.5	101.0	108.0	108.0	170.5	172.5	172.5	38.30	38.37	38.44	38.30	38.37	38.44	24.84	24.91	24.98	24.84	24.91	24.98
19	Kali	19	73.2	160.3	106.0	106.2	106.5	165.2	167.2	167.2	42.12	42.26	42.26	41.54	41.61	41.61	26.78	26.85	26.85	26.28	26.35	26.35
20	Iman	19	74.0	166.0	114.2	114.0	114.2	165.0	167.2	168.2	37.32	37.38	37.44	36.84	36.90	36.96	24.18	24.24	24.30	24.06	24.12	24.18
21	Saf	19	51.5	170.3	100.0	100.0	100.0	150.5	150.5	150.5	34.27	34.34	34.41	33.69	33.76	33.76	23.90	24.04	24.04	23.90	23.97	23.97
22	A.Hac	20	55.3	162.4	95.2	98.2	99.2	150.3	152.0	152.2	32.76	32.83	32.83	32.44	32.57	32.57	21.88	21.95	21.95	21.88	21.95	21.95
23	Erw	21	49.4	159.5	86.1	87.3	88.0	130.4	130.2	130.4	29.63	29.69	29.76	29.63	29.69	29.76	20.67	20.73	20.73	20.67	20.73	20.73
24	Juf	20	53.3	165.0	89.2	91.0	91.4	120.0	120.2	120.2	28.02	28.08	28.08	27.30	27.36	27.36	18.30	18.36	18.42	18.30	18.36	18.42
25	Gus	22	50.3	157.3	85.3	86.0	86.2	70.0	71.0	71.0	33.48	33.55	33.69	33.48	33.62	33.69	23.40	23.47	23.47	23.40	23.47	23.47
26	Isma	20	60.0	166.3	97.0	99.2	100.0	130.2	132.2	132.0	34.68	34.81	36.99	34.68	34.75	36.92	22.97	23.10	24.54	22.84	23.10	24.54
27	Syeh	19	48.5	168.3	80.2	80.0	80.2	150.0	150.0	150.5	32.54	34.42	34.50	32.54	34.42	34.50	22.39	23.71	23.78	22.39	23.71	23.78
28	Ted	19	55.0	168.4	98.5	100.0	100.5	156.0	156.2	156.2	35.06	35.35	35.42	34.92	35.13	35.20	23.90	23.97	24.04	23.32	23.40	23.47
29	Abr.	20	60.4	170.0	95.5	98.2	98.3	147.5	147.3	147.0	30.20	30.20	30.20	29.50	29.50	29.50	21.31	21.31	21.31	20.92	20.92	20.92
30	Nur	19	55.0	163.4	84.0	86.0	87.5	162.5	162.5	162.3	35.29	35.49	35.56	34.20	34.27	34.34	23.46	23.52	23.52	23.46	23.52	23.52

UMUR, TINGGI BADAN DAN BERAT BADAN
PADA KELIMA MACAM PERLAKUAN

	KELOMPOK PERLAKUAN									
	AEROBIK 30 % MAKSIMAL		ANAEROBIK 30 % MAKSIMAL		AEROBIK 50 % MAKSIMAL		ANAEROBIK 50 % MAKSIMAL		KONTROL	
	Mean	simpang Baku	Mean	simpang Baku	Mean	simpang Baku	Mean	simpang Baku	Mean	simpang Baku
UMUR	20	1	20	1	20	1	20	1	20	1
BERAT BADAN	54	5	55	5	56	7	56	7	57	6
TINGGI BADAN	163	7	165	3	164	6	166	6	165	5

Lanjutan lampiran 2. Analisis Variabel Kendali

THE FOLLOWING RESULTS ARE FOR:

KEL = 1.000

	UMUR	TB	BB
N OF CASES	30	30	30
MEAN	19.567	162.733	53.667
STANDARD DEV	1.165	6.586	5.228

THE FOLLOWING RESULTS ARE FOR:

KEL = 2.000

	UMUR	TB	BB
N OF CASES	30	30	30
MEAN	20.000	164.767	54.600
STANDARD DEV	1.462	2.932	4.825

THE FOLLOWING RESULTS ARE FOR:

KEL = 3.000

	UMUR	TB	BB
N OF CASES	30	30	30
MEAN	19.633	164.300	55.533
STANDARD DEV	1.159	5.748	6.699

THE FOLLOWING RESULTS ARE FOR:

KEL = 4.000

	UMUR	TB	BB
N OF CASES	30	30	30
MEAN	20.033	166.033	56.133
STANDARD DEV	1.245	6.043	6.811

THE FOLLOWING RESULTS ARE FOR:

KEL = 5.000

	UMUR	TB	BB
N OF CASES	30	30	30
MEAN	20.267	164.600	56.667
STANDARD DEV	0.944	4.854	6.375

Lanjutan lampiran 2. Analisis Variabel Kendali

SUMMARY STATISTICS FOR UMUR

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 5.561 DF= 4 PROBABILITY = 0.234

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROBABILITY
BETWEEN GROUPS	10.333	4	2.583	1.774	0.137
WITHIN GROUPS	211.167	145	1.456		

SUMMARY STATISTICS FOR TB

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 18.968 DF= 4 PROBABILITY = 0.001

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROBABILITY
BETWEEN GROUPS	167.773	4	41.943	1.445	0.222
WITHIN GROUPS	4207.700	145	29.019		

SUMMARY STATISTICS FOR BB

BARTLETT TEST FOR HOMOGENEITY OF GROUP VARIANCES

CHI-SQUARE = 5.311 DF= 4 PROBABILITY = 0.257

ANALYSIS OF VARIANCE

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROBABILITY
BETWEEN GROUPS	173.173	4	43.293	1.186	0.320
WITHIN GROUPS	5293.467	145	36.507		

KEKUATAN OTOT KAKI AWAL, 6 DAN 12 MINGGU
LIMA MACAM PERLAKUAN

	KELOMPOK PERLAKUAN									
	AEROBIK 30 % MAKSIMAL		ANAEROBIK 30 % MAKSIMAL		AEROBIK 50 % MAKSIMAL		ANAEROBIK 50 % MAKSIMAL		KONTROL	
	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku
KEKUATAN OTOT KAKI AWAL	132	29	126	30	132	28	135	42	153	30
KEKUATAN OTOT KAKI 6 MING	182	31	166	36	168	33	186	50	157	30
KEKUATAN OTOT KAKI 12 MING	213	33	213	35	203	37	237	75	157	30

Lampiran 3. Analisis Variabel Kekuatan

DAYA LEDAK AWAL, 6 DAN 12 MINGGU
LIMA MACAM PERLAKUAN

	KELOMPOK PERLAKUAN									
	AEROBIK 30 % MAKSIMAL		ANAEROBIK 30 % MAKSIMAL		AEROBIK 50 % MAKSIMAL		ANAEROBIK 50 % MAKSIMAL		KONTROL	
	Mean	simpang Baku	Mean	simpang Baku	Mean	simpang Baku	Mean	simpang Baku	Mean	simpang Baku
DAYA LEDAK AWAL	86	11	86	11	90	11	91	10	93	9
DAYA LEDAK 6 MING	89	12	90	11	93	11	95	11	95	9
DAYA LEDAK 12 MING	91	12	92	11	95	11	99	11	96	9

LINGKAR PAHA KANA AWAL, 6 DAN 12 MINGGU
LIMA MACAM PERLAKUAN

	KELOMPOK PERLAKUAN									
	AEROBIK 30 % MAKSIMAL		ANAEROBIK 30 % MAKSIMAL		AEROBIK 50 % MAKSIMAL		ANAEROBIK 50 % MAKSIMAL		KONTROL	
	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku
LINGKAR PAHA KANAN AWAL	31.08	1.64	31.57	3.18	36.93	2.92	37.39	2.47	34.46	3.37
LINGKAR PAHA KANAN 6 MING	32.77	2.28	33.60	2.86	37.52	2.88	38.67	2.46	34.65	3.35
LINGKAR PAHA KANAN 12 MING	34.27	2.87	34.48	2.80	38.08	2.90	39.78	2.47	34.85	3.43

LINGKAR PAHA KIRI AWAL, 6 DAN 12 MINGGU
LIMA MACAM PERLAKUAN

	KELOMPOK PERLAKUAN									
	AEROBIK 30 % MAKSIMAL		ANAEROBIK 30 % MAKSIMAL		AEROBIK 50 % MAKSIMAL		ANAEROBIK 50 % MAKSIMAL		KONTROL	
	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku
LINGKAR PAHA KIRI AWAL	30.81	1.84	31.10	3.19	36.34	2.77	37.27	3.14	34.08	3.41
LINGKAR PAHA KIRI 6 MING	32.73	2.51	33.47	3.15	37.05	2.73	38.27	2.51	34.26	3.41
LINGKAR PAHA KIRI 12 MING	34.10	2.83	34.10	2.84	37.68	2.70	39.56	2.46	34.45	3.50

LINGKAR BETIS KANAN AWAL, 6 DAN 12 MINGGU
LIMA MACAM PERLAKUAN

	KELOMPOK PERLAKUAN									
	AEROBIK 30 % MAKSIMAL		ANAEROBIK 30 % MAKSIMAL		AEROBIK 50 % MAKSIMAL		ANAEROBIK 50 % MAKSIMAL		KONTROL	
	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku
LINGKAR BETIS KANAN AWAL	22.73	2.00	23.40	1.67	25.11	2.33	26.06	1.91	23.09	1.91
LINGKAR BETIS KANAN 6 MING	23.35	1.17	24.44	1.63	25.52	2.30	26.89	1.84	23.19	1.90
LINGKAR BETIS KANAN 12 MING	24.36	1.59	25.29	1.85	26.11	2.19	27.79	1.88	23.36	1.98

LINGKAR BETIS KIRI AWAL, 6 DAN 12 MINGGU
LIMA MACAM PERLAKUAN

	KELOMPOK PERLAKUAN									
	AEROBIK 30 % MAKSIMAL		ANAEROBIK 30 % MAKSIMAL		AEROBIK 50 % MAKSIMAL		ANAEROBIK 50 % MAKSIMAL		KONTROL	
	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku	Mean	Simpang Baku
LINGKAR BETIS KIRI AWAL	22.53	1.99	23.30	1.71	24.79	2.30	25.72	1.83	22.97	1.87
LINGKAR BETIS KIRI 6 MING	23.36	1.59	24.31	1.67	25.33	2.29	26.70	1.93	23.10	1.90
LINGKAR BETIS KIRI 12 MING	24.52	1.93	25.02	1.69	25.90	2.21	27.68	1.93	23.21	1.93

Lampiran 9. Analisis Manova

title 'DATA DELTA POLA PADA POST 1'.

MAN ledaki kuati pahabeti

BY kelompok(0,4)/pri cell (all)/pri homo (all)/pri signif (all)/disc/desig.

150 cases accepted.

0 cases rejected because of out-of-range factor values.

0 cases rejected because of missing data.

5 non-empty cells.

1 design will be processed.

```

-----
                CELL NUMBER
                1  2  3  4  5
Variable
KELOMPOK      1  2  3  4  5
    
```

Cell Means and Standard Deviations

Variable .. LEDAKI

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
KELOMPOK	kontrol	.456	.501	30	.269	.643
KELOMPOK	aerobik	1.408	.617	30	1.177	1.638
KELOMPOK	anaerobi	2.337	1.319	30	1.845	2.830
KELOMPOK	aerobik	1.355	1.678	30	.729	1.982
KELOMPOK	anaerobi	2.372	1.812	30	1.695	3.048
For entire sample		1.586	1.470	150	1.348	1.823

Variable .. KUATI

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
KELOMPOK	kontrol	.030	.038	30	.016	.044
KELOMPOK	aerobik	4.106	1.890	30	3.400	4.812
KELOMPOK	anaerobi	2.744	1.733	30	2.097	3.391
KELOMPOK	aerobik	1.806	1.321	30	1.313	2.300
KELOMPOK	anaerobi	4.533	3.133	30	3.363	5.703
For entire sample		2.644	2.490	150	2.242	3.046

Variable .. PAHABETI

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
KELOMPOK	kontrol	.031	.057	30	.009	.052
KELOMPOK	aerobik	2.742	2.325	30	1.874	3.610
KELOMPOK	anaerobi	4.465	3.058	30	3.323	5.607
KELOMPOK	aerobik	.496	.311	30	.380	.612
KELOMPOK	anaerobi	1.712	.602	30	1.488	1.937
For entire sample		1.889	2.353	150	1.510	2.269

***** ANALYSIS OF VARIANCE -- DESIGN 1*****

EFFECT .. KELOMPOK

Multivariate Tests of Significance (S = 3, M = 0, N = 70 1/2)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.94062	16.55706	12.00	435.00	.000
Hotellings	1.88801	22.28901	12.00	425.00	.000
Wilks	.27548	19.81179	12.00	378.63	.000
Roys	.58587				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.
1	1.41469	74.93027	74.93027	.76542
2	.39797	21.07858	96.00885	.53355
3	.07535	3.99115	100.00000	.26471

Dimension Reduction Analysis

Roots	Wilks L.	F Hypoth. DF	Error DF	Sig. of F	
1 TO 3	.27548	19.81179	12.00	378.63	.000
2 TO 3	.66520	10.85252	6.00	288.00	.000
3 TO 3	.92993	5.46312	2.00	145.00	.005

Univariate F-tests with (4,145) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
LEDAK1	76.32131	245.65550	19.08033	1.69418	11.26231	.000
KUAT1	397.48265	526.11150	99.37066	3.62836	27.38725	.000
PAHABET1	383.68645	441.26286	95.92161	3.04319	31.52006	.000

Averaged F-test with (12,435) D. F.

VARIABLES	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
1 to 3	857.49040	1213.02936	71.45753	2.78857	25.62511	.000

Lampiran 10. Analisis Manova

title 'DATA DELTA POLA PADA POST 2'.

MAN ledak2 kuat2 pahabet2

BY kelompok(0,4)/pri cell (all)/pri homo (all)/pri signif (all)/disc/desig.

150 cases accepted.

0 cases rejected because of out-of-range factor values.

0 cases rejected because of missing data.

5 non-empty cells.

1 design will be processed.

```

-----
                CELL NUMBER
                1   2   3   4   5
Variable
  KELOMPOK    1   2   3   4   5
    
```

Cell Means and Standard Deviations

Variable .. LEDAK2

FACTOR	CODE	Mean	Std. Dev.	N	95 percent	Conf. Interval
KELOMPOK	kontrol	.574	.453	30	.405	.743
KELOMPOK	aerobik	2.353	1.192	30	1.908	2.798
KELOMPOK	anaerobi	3.762	1.539	30	3.188	4.337
KELOMPOK	aerobik	1.911	1.621	30	1.306	2.517
KELOMPOK	anaerobi	6.790	3.816	30	5.365	8.215
For entire sample		3.078	2.938	150	2.604	3.552

Variable .. KUAT2

FACTOR	CODE	Mean	Std. Dev.	N	95 percent	Conf. Interval
KELOMPOK	kontrol	.026	.030	30	.015	.038
KELOMPOK	aerobik	6.210	2.142	30	5.410	7.009
KELOMPOK	anaerobi	7.411	2.651	30	6.421	8.401
KELOMPOK	aerobik	5.195	2.717	30	4.180	6.209
KELOMPOK	anaerobi	8.850	4.115	30	7.314	10.387
For entire sample		5.538	4.018	150	4.890	6.187

Variable .. PAHABET2

FACTOR	CODE	Mean	Std. Dev.	N	95 percent	Conf. Interval
KELOMPOK	kontrol	.066	.106	30	.027	.106
KELOMPOK	aerobik	5.938	3.218	30	4.736	7.139
KELOMPOK	anaerobi	4.894	2.597	30	3.924	5.864
KELOMPOK	aerobik	.877	.426	30	.718	1.036
KELOMPOK	anaerobi	3.240	.761	30	2.956	3.524
For entire sample		3.003	2.931	150	2.530	3.476

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***** ANALYSIS OF VARIANCE -- DESIGN 1 *****

EFFECT .. KELOMPOK

Multivariate Tests of Significance (S = 3, M = 0, N = 70 1/2)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	1.32505	28.57743	12.00	435.00	.000
Hotelling's	3.89854	46.02448	12.00	425.00	.000
Wilks	.11967	38.83945	12.00	378.63	.000
Roots	.73559				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.
1	2.78203	71.36066	71.36066	.85767
2	1.02593	26.31576	97.67642	.71162
3	.09059	2.32358	100.00000	.28820

Dimension Reduction Analysis

Roots	Wilks L.	F Hypoth. DF	Error DF	Sig. of F	
1 TO 3	.11967	38.83945	12.00	378.63	.000
2 TO 3	.45260	23.34829	6.00	288.00	.000
3 TO 3	.71694	6.56747	2.00	145.00	.002

Univariate F-tests with (4,145) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
LEDAK2	672.06511	614.46295	168.01628	4.23768	39.64822	.000
KUAT2	1362.83265	1042.08277	340.70616	7.18678	47.40764	.000
PAHABET2	761.58189	518.34607	190.39547	3.57480	53.26045	.000

Averaged F-test with (12,435) D. F.

VARIABLES	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
1 to 3	2796.47965	2174.89179	233.03997	4.99975	46.81031	.000

Lanjutan lampiran 10. Analisis Manova

MAN ledaki kuat1 pahabet1

BY kelompok(0,4)/pri cell (all)/pri homo (all)/pri signif (all)/disc/desig.

150 cases accepted.

0 cases rejected because of out-of-range factor values.

0 cases rejected because of missing data.

5 non-empty cells.

1 design will be processed.

```

-----
                CELL NUMBER
                1   2   3   4   5
Variable
  KELOMPOK    1   2   3   4   5
    
```

Cell Means and Standard Deviations
Variable .. LEDAKI

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
KELOMPOK	0	1.680	1.848	30	.990	2.370
KELOMPOK	1	2.763	1.300	30	2.478	3.449
KELOMPOK	2	3.393	2.192	30	3.065	4.702
KELOMPOK	3	2.863	3.545	30	1.540	4.187
KELOMPOK	4	3.800	2.903	30	2.716	4.884
For entire sample		3.038	2.579	150	2.622	3.454

Variable .. KUATI

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
KELOMPOK	0	3.893	4.847	30	2.083	5.703
KELOMPOK	1	49.623	22.847	30	41.092	58.155
KELOMPOK	2	40.397	25.520	30	30.367	49.926
KELOMPOK	3	32.553	23.802	30	23.666	41.441
KELOMPOK	4	51.927	35.822	30	38.450	65.203
For entire sample		35.359	29.908	150	30.833	40.484

Variable .. PAHABET1

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
KELOMPOK	0	.151	.282	30	.046	.257
KELOMPOK	1	1.268	1.075	30	.867	1.670
KELOMPOK	2	1.511	1.103	30	1.199	2.023
KELOMPOK	3	.564	.353	30	.432	.696
KELOMPOK	4	1.025	.360	30	.691	1.160
For entire sample		.924	.891	150	.780	1.068

Lanjutan lampiran 10. Analisis Manova

***** ANALYSIS OF VARIANCE -- DESIGN 1 *****

EFFECT .. KELOMPOK

Multivariate Tests of Significance (S = 3, M = 0, N = 70 1/2)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.60909	9.23476	12.00	435.00	.000
Hotelling's	1.09958	12.98111	12.00	425.00	.000
Wilks	.44902	11.15110	12.00	378.63	.000
Roys	.49305				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.
1	.97257	88.44975	88.44975	.70217
2	.10854	9.87108	98.32083	.31291
3	.01846	1.67917	100.00000	.13464

Dimension Reduction Analysis

Roots	Wilks L.	F Hypoth. DF	Error DF	Sig. of F	
1 TO 3	.44902	11.15110	12.00	378.63	.000
2 TO 3	.88573	3.00230	6.00	288.00	.007
3 TO 3	.98187	1.33862	2.00	145.00	.265

Univariate F-tests with (4,145) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
LEDAX1	95.26440	895.10898	23.81610	6.18006	3.85370	.005
KUAT1	44926.3285	38349.2158	11231.5821	609.30494	18.43343	.000
PAHABET1	39.62998	78.62274	9.95750	.54154	18.38750	.000

Averaged F-test with (12,435) D. F.

VARIABLES	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
1 to 3	45061.42291	89323.84753	3755.11858	205.34218	18.28713	.000

Lanjutan lampiran 10. Analisis Manova

***** ANALYSIS OF VARIANCE -- DESIGN 1*****

EFFECT .. CONSTANT

Multivariate Tests of Significance (S = 1, M = 1/2, N = 70 1/2)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.83949	249.29865	3.00	143.00	.000
Hotellings	5.23004	249.29865	3.00	143.00	.000
Wilks	.16051	249.29865	3.00	143.00	.000
Roys	.83949				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.
1	5.23004	100.00000	100.00000	.91624

Univariate F-tests with (1,145) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
LEDAK1	1384.41659	896.10898	1384.41659	6.18006	224.01338	.000
KUAT1	190731.076	88349.2158	190731.076	609.30494	313.03058	.000
PAHABET1	128.02944	78.52274	128.02944	.54154	236.41903	.000

Averaged F-test with (3,435) D. F.

VARIABLES	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
1 to 3	192243.52230	89323.84753	64081.17410	205.34218	312.07020	.000

Lampiran 11. Analisis Diskriminan

dsc group KELOMPOK(0,4)/VAR ledaki kuati pahabet1
/met rao/ana all/stat all.

----- DISCRIMINANT ANALYSIS -----

On groups defined by KELOMPOK

150 (unweighted) cases were processed.
0 of these were excluded from the analysis.
150 (unweighted) cases will be used in the analysis.

Number of Cases by Group

KELOMPOK	Number of Cases		Label
	Unweighted	Weighted	
0	30	30.0	
1	30	30.0	
2	30	30.0	
3	30	30.0	
4	30	30.0	
Total	150	150.0	

Group Means

KELOMPOK	LEDAK1	KUATI	PAHABET1
0	1.68000	3.89333	.15133
1	2.96333	49.62333	1.26833
2	3.88333	40.39667	1.61100
3	2.96333	32.55333	.56358
4	3.80000	51.82667	1.02508
Total	3.03800	35.65667	.92387

Group Standard Deviations

KELOMPOK	LEDAK1	KUATI	PAHABET1
0	1.84772	4.84703	.28214
1	1.29973	22.84703	1.07539
2	2.19153	25.52042	1.10319
3	3.54464	23.80176	.35340
4	2.90339	35.82218	.36012
Total	2.57944	29.90764	.89124

Wilks' Lambda (U-statistic) and univariate F-ratio
with 4 and 145 degrees of freedom

Variable	Wilks' Lambda	F	Significance
LEDAK1	.90391	3.854	.0053
KUATI	.66291	18.43	.0000
PAHABET1	.66346	18.39	.0000

----- DISCRIMINANT ANALYSIS -----

On groups defined by KELOMPOK

Analysis number 1

Stepwise variable selection

Selection rule: Maximize Rao's V
 Maximum number of steps..... 6
 Minimum Tolerance Level..... .00100
 Minimum F to enter..... 1.0000
 Maximum F to remove..... 1.0000
 Minimum increase in Rao's V..... .00000

Canonical Discriminant Functions

Maximum number of functions..... 3
 Minimum cumulative percent of variance... 100.00
 Maximum significance of Wilks' Lambda.... 1.0000

Prior probability for each group is .20000

----- Variables not in the analysis after step 0 -----

Variable	Tolerance	Minimum Tolerance	F to enter	Rao's V
LEDAK1	1.0000000	1.0000000	3.8537	15.41480
KUAT1	1.0000000	1.0000000	18.433	73.73373
PAHABET1	1.0000000	1.0000000	18.388	73.55001

At step 1, KUAT1 was included in the analysis.

	Wilks' Lambda	Degrees of Freedom	Signif. Between Groups
Wilks' Lambda	.66291	1 4	145.0
Equivalent F	18.4334	4	145.0 .0000
RAO'S V	73.73373	4	.0000 (APPROX.)

----- Variables in the analysis after step 1 -----

Variable	Tolerance	F to remove	Rao's V
KUAT1	1.0000000	18.433	

----- Variables not in the analysis after step 1 -----

Variable	Tolerance	Minimum Tolerance	F to enter	Rao's V
LEDAK1	.9970258	.9970258	3.4478	92.56795
PAHABET1	.9995839	.9995839	14.008	144.9616

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F statistics and significances between pairs of groups after step 1
 Each F statistic has 1 and 145.0 degrees of freedom.

Group	0	1	2	3
1	51.482 .0000			
2	32.804 .0000	2.0958 .1499		
3	20.221 .0000	7.1734 .0083	1.5145 .2205	
4	56.563 .0000	.11951 .7301	3.2162 .0750	9.1447 .0030

At step 2, PAHABET1 was included in the analysis.

	Wilks' Lambda	Degrees of Freedom	Signif.	Between Groups
	.47721	2 4	145.0	
	Equivalent F	16.1130	8	288.0 .0000
	RAO'S V	144.9616	8	.0000 (APPROX.)

----- Variables in the analysis after step 2 -----

Variable	Tolerance	F to remove	Rao's V
KUAT1	.9995837	14.050	
PAHABET1	.9995837	14.008	

----- Variables not in the analysis after step 2 -----

Variable	Tolerance	Minimum Tolerance	F to enter	Rao's V
LEDAK1	.9909096	.9909096	2.2444	159.4386

F statistics and significances between pairs of groups after step 2
 Each F statistic has 2 and 144.0 degrees of freedom.

Group	0	1	2	3
1	41.887 .0000			
2	44.721 .0000	2.7097 .0700		
3	12.186 .0000	10.196 .0001	15.710 .0000	
4	37.902 .0000	.88251 .4160	6.4335 .0021	7.3244 .0009

Lanjutan Lampiran 11. Analisis Diskriminan

At step 3, LEDAK1 was included in the analysis.

		Degrees of Freedom	Signif.	Between Groups
Wilks' Lambda	.44902	3 4	145.0	
Approximate F	11.1511	12	378.6	.0000
RAO'S V	159.4386	12		.0000 (APPROX.)

----- Variables in the analysis after step 3 -----

Variable	Tolerance	F to remove	Rao's V
LEDAK1	.9909096	2.2444	
KUAT1	.9964170	13.957	
PAHABET1	.9934520	12.416	

F statistics and significances between pairs of groups after step 3
 Each F statistic has 3 and 143.0 degrees of freedom.

Group	0	1	2	3
Group 1	28.982 .0000			
Group 2	32.705 .0000	2.2804 .0819		
Group 3	9.2984 .0000	6.7503 .0003	10.900 .0000	
Group 4	28.850 .0000	1.2560 .2919	4.2741 .0064	5.5360 .0013

F level or tolerance or VIN insufficient for further computation.

Summary Table

Step	Action	Vars	Wilks' Lambda	Sig.	Rao's V	Sig.	Change in V	Sig.	Label
1	KUAT1	1	.66291	.0000	73.73373	.0000	73.73373	.0000	
2	PAHABET1	2	.47721	.0000	144.96160	.0000	71.22787	.0000	
3	LEDAK1	3	.44902	.0000	159.43860	.0000	14.47700	.0059	

Classification Function Coefficients
 (Fisher's Linear Discriminant Functions)

KELOMPOK=	0	1	2	3	4
LEDAK1	.2713997	.4749769	.6019047	.4733001	.6241308
KUAT1	.7756702E-02	.8273670E-01	.6792005E-01	.5549173E-01	.8747079E-01
PAHABET1	.2034773	2.161819	2.771675	.8795061	1.670558
(constant)	-1.867910	-5.736984	-6.382592	-3.438104	-5.918177

Lanjutan Lampiran 11. Analisis Diskriminan

Canonical Discriminant Functions

Function	Eigenvalue	Percent of Variance	Cumulative Percent	Canonical Correlation	: After Function	Wilks' Lambda	Chi-squared	D.F.	Significance
1*	.97257	88.45	88.45	.7021737	: 0	.4490245	116.10	12	.0000
2*	.10854	9.87	98.32	.3129100	: 1	.8857334	17.594	6	.0073
3*	.01846	1.68	100.00	.1346439	: 2	.9818710	2.6528	2	.2654

* marks the 3 canonical discriminant functions remaining in the analysis.

Standardized Canonical Discriminant Function Coefficients

	FUNC 1	FUNC 2	FUNC 3
LEDAK1	.29135	.11217	.95483
KUAT1	.68945	.68880	-.23197
PAHABET1	.64393	-.74513	-.19162

Structure Matrix:

Pooled-within-groups correlations between discriminating variables
and canonical discriminant functions
(Variables ordered by size of correlation within function)

	FUNC 1	FUNC 2	FUNC 3
KUAT1	.68670*	.66748	-.28795
PAHABET1	.68045	-.72244*	-.12276
LEDAK1	.30339	.01717	.95271*

Unstandardized Canonical Discriminant Function Coefficients

	FUNC 1	FUNC 2	FUNC 3
LEDAK1	.1171986	.4512118E-01	.3840881
KUAT1	.2793100E-01	.2790455E-01	-.9397415E-02
PAHABET1	.8750354	-1.012559	-.2603981
(constant)	-2.160448	-.1966476	-.5911872

Canonical Discriminant Functions evaluated at Group Means (Group Centroids)

Group	FUNC 1	FUNC 2	FUNC 3
0	-1.72239	-.16544	-.02191
1	.68272	.03752	-.24961
2	.83268	-.52541	.10123
3	-.42247	.27027	.05591
4	.62946	.38306	.11438

IR-PERPUSTAKAAN UNIVERSITAS AIRLANGGA
Lanjutan lampiran 11. Analisis Diskriminan

Test of equality of group covariance matrices using Box's M

The ranks and natural logarithms of determinants printed are those of the group covariance matrices.

Group Label	Rank	Log Determinant
0	3	1.816529
1	3	6.764621
2	3	8.096937
3	3	6.769465
4	3	6.909209
Pooled Within-Groups Covariance Matrix	3	7.610753

Box's M	Approximate F	Degrees of freedom	Significance
223.21	8.8798	24,	58051.3 .0000

----- DISCRIMINANT ANALYSIS -----

On groups defined by KELOMPOK

Analysis number 2

Direct method: All variables passing the tolerance test are entered.

Minimum Tolerance Level..... .00100

Canonical Discriminant Functions

Maximum number of functions..... 3
 Minimum cumulative percent of variance... 100.00
 Maximum significance of Wilks' Lambda.... 1.0000

Prior probability for each group is .20000

Classification Function Coefficients
 (Fisher's Linear Discriminant Functions)

KELOMPOK=	0	1	2	3	4
LEDAK1	.2713997	.4749769	.6019047	.4733001	.6241308
KUAT1	.7756702E-02	.8273670E-01	.6792005E-01	.5549173E-01	.8747079E-01
PAHABET1	.2034773	2.161819	2.771675	.8795061	1.670558
(constant)	-1.867910	-5.736984	-6.382592	-3.438104	-5.918177

Canonical Discriminant Functions

Function	Eigenvalue	Percent Variance	Cumulative Percent	Canonical Correlation	: After Function	Wilks' Lambda	Chi-squared	D.F.	Significance
					0	.4490245	116.10	12	.0000
1*	.97257	88.45	88.45	.7021737	1	.8857334	17.594	6	.0073
2*	.10854	9.87	98.32	.3129100	2	.9813710	2.6528	2	.2654
3*	.01846	1.68	100.00	.1346439	:				

* marks the 3 canonical discriminant functions remaining in the analysis.

Lanjutan Lampiran 11. Analisis Diskriminan

Standardized Canonical Discriminant Function Coefficients

	FUNC 1	FUNC 2	FUNC 3
LEDAK1	.29135	.11217	.95483
KUAT1	.68945	.68880	-.23197
PAHABET1	.64393	-.74513	-.19162

Structure Matrix:

Pooled-within-groups correlations between discriminating variables
and canonical discriminant functions
(Variables ordered by size of correlation within function)

	FUNC 1	FUNC 2	FUNC 3
KUAT1	.68670*	.66748	-.28795
PAHABET1	.68045	-.72244*	-.12276
LEDAK1	.30339	.01717	.95271*

Unstandardized Canonical Discriminant Function Coefficients

	FUNC 1	FUNC 2	FUNC 3
LEDAK1	.1171986	.4512118E-01	.3840881
KUAT1	.2793100E-01	.2790455E-01	-.9397415E-02
PAHABET1	.8750354	-1.012559	-.2603981
(constant)	-2.160448	-.1966476	-.5911872

Canonical Discriminant Functions evaluated at Group Means (Group Centroids)

Group	FUNC 1	FUNC 2	FUNC 3
0	-1.72239	-.16544	-.02191
1	.68272	.03752	-.24961
2	.83268	-.52541	.10123
3	-.42247	.27027	.05591
4	.62946	.38306	.11438

Test of equality of group covariance matrices using Box's M

The ranks and natural logarithms of determinants printed are those
of the group covariance matrices.

Group Label	Rank	Log Determinant
0	3	1.816529
1	3	6.784621
2	3	8.096937
3	3	6.789465
4	3	6.909209

Pooled Within-Groups
Covariance Matrix 3 7.610753

Box's M	Approximate F	Degrees of freedom	Significance
223.21	8.8798	24,	58051.3 .0000

Lanjutan lampiran 11. Analisis Diskriminan

----- DISCRIMINANT ANALYSIS -----

On groups defined by KELOMPOK

Analysis number.. 1

Number of Canonical Discriminant Functions.. 3

List of the 3 Variables used..

Variable Label

 LEDAK1
 KUATI
 PAHABET1

Classification Results -

Actual Group	No. of Cases	Predicted Group Membership				
		0	1	2	3	4
Group 0	30	29 96.7%	0 .0%	0 .0%	1 3.3%	0 .0%
Group 1	30	2 6.7%	6 20.0%	11 36.7%	6 20.0%	5 16.7%
Group 2	30	1 3.3%	0 .0%	16 53.3%	10 33.3%	3 10.0%
Group 3	30	9 30.0%	0 .0%	1 3.3%	12 40.0%	8 26.7%
Group 4	30	1 3.3%	7 23.3%	4 13.3%	4 13.3%	14 46.7%

Percent of "grouped" cases correctly classified: 51.33%

Classification Processing Summary

150 Cases were processed.

0 Cases were excluded for missing or out-of-range group codes.

0 Cases had at least one missing discriminating variable.

150 Cases were used for printed output.

Lampiran 12. Analisis Diskriminan

MAN ledak2 kuat2 pahabet2

BY kelompok(0,4)/pri cell (all)/pri homo (all)/pri signif (all)/disc/desiq.

150 cases accepted.

0 cases rejected because of out-of-range factor values.

0 cases rejected because of missing data.

5 non-empty cells.

1 design will be processed.

Variable	CELL NUMBER				
	1	2	3	4	5
KELOMPOK	1	2	3	4	5

Cell Means and Standard Deviations

Variable .. LEDAK2

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
KELOMPOK	0	2.360	1.863	30	1.664	3.056
KELOMPOK	1	4.917	2.492	30	3.986	5.847
KELOMPOK	2	6.053	2.476	30	5.129	6.978
KELOMPOK	3	4.087	3.465	30	2.793	5.381
KELOMPOK	4	7.937	4.461	30	6.271	9.602
For entire sample		5.071	3.580	150	4.493	5.648

Variable .. KUAT2

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
KELOMPOK	0	4.360	4.973	30	2.503	6.217
KELOMPOK	1	80.307	27.868	30	70.401	91.213
KELOMPOK	2	86.807	31.052	30	75.212	98.402
KELOMPOK	3	71.163	37.223	30	57.264	85.063
KELOMPOK	4	92.667	43.088	30	76.577	108.756
For entire sample		57.151	44.924	150	59.913	74.409

Variable .. PAHABET2

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
KELOMPOK	0	.319	.506	30	.130	.507
KELOMPOK	1	2.527	1.370	30	2.016	3.038
KELOMPOK	2	2.378	1.262	30	1.707	2.849
KELOMPOK	3	1.150	.559	30	.941	1.358
KELOMPOK	4	2.093	.491	30	1.909	2.276
For entire sample		1.693	1.241	150	1.493	1.893

Lanjutan lampiran 12. Analisis Diskriminan

***** ANALYSIS OF VARIANCE -- DESIGN 1*****

EFFECT .. KELOMPOK

Multivariate Tests of Significance (S = 3, M = 0, N = 70 1/2)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.86631	14.71811	12.00	435.00	.000
Hotellings	2.11626	24.98358	12.00	425.00	.000
Wilks	.27690	19.71196	12.00	378.63	.000
Roys	.65151				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.
1	1.86954	88.34191	88.34191	.80716
2	.16174	3.58200	96.92391	.39216
3	.06497	3.07009	100.00000	.24700

Dimension Reduction Analysis

Roots	Wilks L.	F Hypoth. DF	Error DF	Sig. of F	
1 TO 3	.27690	19.71196	12.00	378.63	.000
2 TO 3	.79458	5.84828	6.00	288.00	.000
3 TO 3	.82899	4.71039	2.00	145.00	.010

Univariate F-tests with (4,145) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
LEDAK2	525.57826	1383.91264	131.39457	9.54423	13.76692	.000
KUAT2	155480.392	145225.905	38670.0981	1001.55797	38.80963	.000
PAHABET2	105.26798	124.05787	26.31700	.85564	30.75707	.000

Averaged F-test with (12,435) D. F.

VARIABLES	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
1 to 3	156111.2355	146733.98567	13009.26988	337.31925	38.56664	.000

Lanjutan lampiran 12. Analisis Diskriminan

Y

***** ANALYSIS OF VARIANCE -- DESIGN 1 *****

EFFECT .. CONSTANT

Multivariate Tests of Significance (S = 1, M = 1/2, N = 70 1/2)

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.90829	472.09023	3.00	143.00	.000
Hotelling's	9.90399	472.09023	3.00	143.00	.000
Wilks	.09171	472.09023	3.00	143.00	.000
Roy's	.90829				

Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.
1	9.90399	100.00000	100.00000	.95304

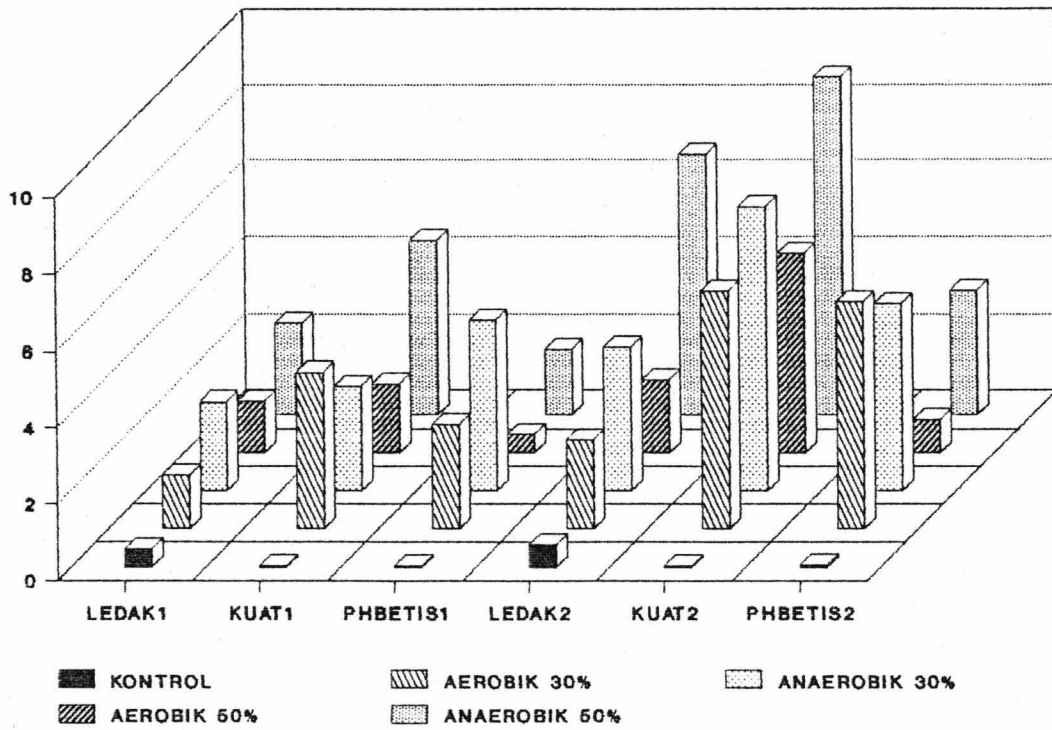
Univariate F-tests with (1,145) D. F.

Variable	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
LEDAK2	3856.74906	1383.91264	3856.74906	9.54423	404.09242	.000
KUAT2	676583.272	145225.905	676583.272	1001.55797	675.53082	.000
PEHABET2	430.03047	124.06787	430.03047	.65564	502.58313	.000

Averaged F-test with (3,435) D. F.

VARIABLES	Hypoth. SS	Error SS	Hypoth. MS	Error MS	F	Sig. of F
1 to 3	680870.05189	146733.88567	226956.68396	337.31928	672.82453	.000

GRAFIK POLA



Lampiran 14. Besaran Pola Komplemen Variabel

dsc group KELOMPOK(0,4)/VAR ledak2 kuat2 pahabet2
/met rao/ana all/stat all.

----- DISCRIMINANT ANALYSIS -----

On groups defined by KELOMPOK

150 (unweighted) cases were processed.
0 of these were excluded from the analysis.
150 (unweighted) cases will be used in the analysis.

Number of Cases by Group

KELOMPOK	Number of Cases		Label
	Unweighted	Weighted	
0	30	30.0	
1	30	30.0	
2	30	30.0	
3	30	30.0	
4	30	30.0	
Total	150	150.0	

Group Means

KELOMPOK	LEDAK2	KUAT2	PAHABET2
0	2.36000	4.36000	.31850
1	4.91667	80.80667	2.52700
2	6.05333	66.80667	2.37808
3	4.06667	71.16333	1.14975
4	7.93667	92.66667	2.19258
Total	5.07067	67.16067	1.69318

Group Standard Deviations

KELOMPOK	LEDAK2	KUAT2	PAHABET2
0	1.86318	4.97273	.50601
1	2.49165	27.86801	1.36972
2	2.47647	31.05214	1.26199
3	3.46507	37.22341	.55866
4	4.46113	43.08849	.49123
Total	3.57986	44.92397	1.24063

Wilks' Lambda (U-statistic) and univariate F-ratio
with 4 and 145 degrees of freedom

Variable	Wilks' Lambda	F	Significance
LEDAK2	.72475	13.77	.0000
KUAT2	.48295	38.81	.0000
PAHABET2	.54099	30.76	.0000

Lanjutan lampiran 14. Besaran Pola Komplemen Variabel

----- DISCRIMINANT ANALYSIS -----

On groups defined by KELOMPOK

Analysis number 1

Stepwise variable selection

Selection rule: Maximize Rao's V

Maximum number of steps..... 6
 Minimum Tolerance Level..... .00100
 Minimum F to enter..... 1.0000
 Maximum F to remove..... 1.0000
 Minimum increase in Rao's V..... .00000

Canonical Discriminant Functions

Maximum number of functions..... 3
 Minimum cumulative percent of variance... 100.00
 Maximum significance of Wilks' Lambda.... 1.0000

Prior probability for each group is .20000

----- Variables not in the analysis after step 0 -----

Variable	Tolerance	Minimum Tolerance	F to enter	Rao's V
LEDAK2	1.0000000	1.0000000	13.767	55.06767
KUAT2	1.0000000	1.0000000	38.810	155.2385
PAHABET2	1.0000000	1.0000000	30.757	123.0283

At step 1, KUAT2 was included in the analysis.

	Wilks' Lambda	Degrees of Freedom	Signif. Between Groups
	.48295	1 4	145.0
Equivalent F	38.8096	4	145.0 .0000
RAO'S V	155.2385	4	.0000 (APPROX.)

----- Variables in the analysis after step 1 -----

Variable	Tolerance	F to remove	Rao's V
KUAT2	1.0000000	38.810	

----- Variables not in the analysis after step 1 -----

Variable	Tolerance	Minimum Tolerance	F to enter	Rao's V
LEDAK2	.9890799	.9890799	10.840	229.2652
PAHABET2	.9838954	.9838954	15.035	251.3161

Lanjutan lampiran 14. Besaran Pola Komplemen Variabel

F statistics and significances between pairs of groups after step 1
 Each F statistic has 1 and 145.0 degrees of freedom.

Group	0	1	2	3
1	97.525 .0000			
2	101.80 .0000	.53916 .4640		
3	66.836 .0000	1.3927 .2399	3.6650 .0575	
4	116.79 .0000	2.1066 .1488	.51429 .4744	6.9251 .0094

At step 2, PAHABET2 was included in the analysis.

		Degrees of Freedom	Signif.	Between Groups
Wilks' Lambda	.34067	2 4	145.0	
Equivalent F	25.6789	8	288.0	.0000
RAO'S V	251.3161	8		.0000 (APPROX.)

----- Variables in the analysis after step 2 -----

Variable	Tolerance	F to remove	Rad's V
KUAT2	.9838954	21.169	
PAHABET2	.9838954	15.035	

----- Variables not in the analysis after step 2 -----

Variable	Tolerance	Minimum Tolerance	F to enter	Rad's V
LEDAK2	.9553369	.9503312	8.2327	306.8572

F statistics and significances between pairs of groups after step 2
 Each F statistic has 2 and 144.0 degrees of freedom.

Group	0	1	2	3
1	76.244 .0000			
2	77.763 .0000	.52695 .5915		
3	36.200 .0000	16.613 .0000	13.737 .0000	
4	76.505 .0000	3.0710 .0494	1.0905 .3388	10.029 .0001

Lanjutan lampiran 14. Besaran Pola Komplemen Variabel

At step 3, LEDAK2 was included in the analysis.

		Degrees of Freedom		Signif.	Between Groups
Wilks' Lambda	.27690	3	4		145.0
Approximate F	19.7120	12		.0000	
Rao's V	306.8572	12		.0000 (APPROX.)	

----- Variables in the analysis after step 3 -----

Variable	Tolerance	F to remove	Rao's V
LEDAK2	.9553389	8.2327	
KUAT2	.9675689	21.500	
PAHABET2	.9503312	12.172	

F statistics and significances between pairs of groups after step 3.
Each F statistic has 3 and 143.0 degrees of freedom.

Group	0	1	2	3
Group 1	52.967 .0000			
Group 2	57.917 .0000	1.2681 .2977		
Group 3	25.232 .0000	11.004 .0000	10.291 .0000	
Group 4	67.505 .0000	8.4211 .0000	3.1928 .0258	13.400 .0000

F level or tolerance or VIN insufficient for further computation.

Summary Table

Step	Action	Vars	Wilks'	Change					
Entered	Removed	In	Lambdas	Signif.	Rao's V	Signif.	In V	Signif.	Label
1	KUAT2	1	.48295	.0000	155.23854	.0000	155.23854	.0000	
2	PAHABET2	2	.34067	.0000	251.31613	.0000	96.07760	.0000	
3	LEDAK2	3	.27690	.0000	306.85721	.0000	55.54107	.0000	

Classification Function Coefficients
(Fisher's Linear Discriminant Functions)

	0	1	2	3	4
LEDAK2	.2432001	.4785547	.6215406	.4677315	.8554888
KUAT2	.6059995E-02	.7684723E-01	.8537876E-01	.7299425E-01	.9550655E-01
PAHABET2	.2087028	2.349673	2.057912	.7628955	1.548270
(constant)	-1.942861	-8.859583	-9.643300	-5.600996	-11.04938

Lanjutan lampiran 14. Besaran Pola Komplemen Variabel

Canonical Discriminant Functions

Function	Eigenvalue	Percent Variance	Cumulative Percent	Canonical Correlation	: After Function	Wilks' Lambda	Chi-squared	D.F.	Significance
1*	1.86954	88.34	88.34	.8071631	: 0	.2769021	136.19	12	.0000
2*	.18174	8.59	96.93	.3921647	: 1	.7945821	33.341	6	.0000
3*	.06497	3.07	100.00	.2469965	: 2	.9389927	7.1274	2	.0104

* marks the 3 canonical discriminant functions remaining in the analysis.

Standardized Canonical Discriminant Function Coefficients

	FUNC 1	FUNC 2	FUNC 3
LEDAK2	.39673	.65095	.68260
KUAT2	.72576	.38909	-.39616
PAHABET2	.47467	-.86872	.26885

Structure Matrix:

Pooled-within-groups correlations between discriminating variables
and canonical discriminant functions
(Variables ordered by size of correlation within function)

	FUNC 1	FUNC 2	FUNC 3
KUAT2	.74458*	.21082	-.63337
PAHABET2	.63373	-.70937*	.30852
LEDAK2	.40068	.46353	.79032*

Unstandardized Canonical Discriminant Function Coefficients

	FUNC 1	FUNC 2	FUNC 3
LEDAK2	.1282887	.2107051	.2209500
KUAT2	.2293261E-01	.1229457E-01	-.1880745E-01
PAHABET2	.5171537	-.9391449	.2906509
(constant)	-3.059542	-.3039822	-.3473532

Canonical Discriminant Functions evaluated at Group Means (Group Centroids)

Group	FUNC 1	FUNC 2	FUNC 3
0	-2.49336	-.05223	.18453
1	.72106	-.64775	-.04873
2	.92806	-.19463	.04611
3	-.31331	.35224	-.45076
4	1.15755	.54237	.26886

Test of equality of group covariance matrices using Box's M

The ranks and natural logarithms of determinants printed are those of the group covariance matrices.

Group Label	Rank	Log Determinant
0	3	3.060056
1	3	8.785593
2	3	8.879783
3	3	8.442148
4	3	9.004908
Pooled Within-Groups Covariance Matrix	3	8.947418

Box's M	Approximate F	Degrees of freedom	Significance
190.37	7.5734	24,	58051.3 .0000

----- DISCRIMINANT ANALYSIS -----

On groups defined by KELOMPOK

Analysis number 2
 Direct method: All variables passing the tolerance test are entered.
 Minimum Tolerance Level..... .00100

Canonical Discriminant Functions

Maximum number of functions..... 3
 Minimum cumulative percent of variance... 100.00
 Maximum significance of Wilks' Lambda.... 1.0000

Prior probability for each group is .20000

Classification Function Coefficients
 (Fisher's Linear Discriminant Functions)

KELOMPOK=	0	1	2	3	4
LEDAK2	.2432001	.4785547	.6215406	.4677315	.8554688
KUAT2	.6059979E-02	.7684729E-01	.8537876E-01	.7299429E-01	.9550655E-01
PAHABET2	.2087028	2.349673	2.057912	.7628955	1.548270
(constant)	-1.942861	-8.859583	-9.643300	-5.600996	-11.04938

Canonical Discriminant Functions

Function	Eigenvalue	Percent of Variance	Cumulative Percent	Canonical Correlation	After Function	Wilks' Lambda	Chi-squared	D.F.	Significance
1*	1.86954	88.34	88.34	.8071631	0	.2769021	186.19	12	.0000
2*	.18174	8.59	96.93	.3921647	1	.7945821	33.341	6	.0000
3*	.06497	3.07	100.00	.2469965	2	.9389927	9.1274	2	.0104

Lanjutan lampiran 14. Besaran Pola Komplemen Variabel

* marks the 3 canonical discriminant functions remaining in the analysis.

Standardized Canonical Discriminant Function Coefficients

	FUNC 1	FUNC 2	FUNC 3
LEDAK2	.39633	.65095	.68260
KUAT2	.72576	.38909	-.59616
PAHABET2	.47467	-.86872	.26885

Structure Matrix:

Pooled-within-groups correlations between discriminating variables
and canonical discriminant functions
(Variables ordered by size of correlation within function)

	FUNC 1	FUNC 2	FUNC 3
KUAT2	.74458*	.21062	-.63337
PAHABET2	.63373	-.70937*	.30852
LEDAK2	.40068	.46353	.79032*

Unstandardized Canonical Discriminant Function Coefficients

	FUNC 1	FUNC 2	FUNC 3
LEDAK2	.1282887	.2107051	.2209500
KUAT2	.2293261E-01	.1229457E-01	-.1883745E-01
PAHABET2	.5131537	-.9391449	.2906509
(constant)	-3.059542	-.3039822	-.3473532

Canonical Discriminant Functions evaluated at Group Means (Group Centroids)

Group	FUNC 1	FUNC 2	FUNC 3
0	-2.49336	-.05223	.18453
1	.72106	-.64775	-.04873
2	.92806	-.19463	.04611
3	-.31331	.35224	-.46076
4	1.15755	.54237	.26886

Test of equality of group covariance matrices using Box's M

The ranks and natural logarithms of determinants printed are those
of the group covariance matrices.

Group Label	Rank	Log Determinant
0	3	3.060056
1	3	8.785593
2	3	8.879763
3	3	8.442148
4	3	9.004908
Pooled Within-Groups Covariance Matrix	3	8.947418

Box's M	Approximate F	Degrees of freedom	Significance
190.37	7.5734	24,	98051.3 .0000

Lanjutan lampiran 14. Besaran Pola Komplemen Variabel

----- DISCRIMINANT ANALYSIS -----

On groups defined by KELDMPOK

Analysis number.. 1

Number of Canonical Discriminant Functions.. 3

List of the 3 Variables used..

Variable Label

LEDAK2
KUAT2
PAHABET2

Classification Results -

Actual Group	No. of Cases	Predicted Group Membership				
		0	1	2	3	4
Group 0	30	30 100.0%	0 .0%	0 .0%	0 .0%	0 .0%
Group 1	30	2 6.7%	15 50.0%	4 13.3%	5 16.7%	4 13.3%
Group 2	30	1 3.3%	6 20.0%	8 26.7%	11 36.7%	4 13.3%
Group 3	30	4 13.3%	2 6.7%	1 3.3%	21 70.0%	2 6.7%
Group 4	30	0 .0%	7 23.3%	6 20.0%	2 6.7%	15 50.0%

Percent of "grouped" cases correctly classified: 59.33%

Classification Processing Summary

150 Cases were processed.

0 Cases were excluded for missing or out-of-range group codes.

0 Cases had at least one missing discriminating variable.

150 Cases were used for printed output.

Lampiran 15

SURAT PERSETUJUAN SEBAGAI SAMPEL PENELITIAN.

Yang bertanda tangan di bawah ini :

N a m a :
U m u r :
Jenis Kelamin :
A g a m a :
Pekerjaan :
Alamat Rumah :

Dengan ini menyatakan tidak keberatan untuk ikut berperan serta sebagai sampel dalam penelitian Disertasi:
Drs.Dirhamzah M.Mangkona, M.S., dengan judul :

**PENGARUH LATIHAN HALF SQUAT IRAMA CEPAT DAN
LAMBAT BERBEBAN 30% DAN 50% BEBAN MAKSIMUM
TERHADAP PENINGKATAN KEKUATAN, DAYA LEDAK DAN
HIPERTROFI OTOT TUNGKAI**

Demikian surat pernyataan ini saya buat dengan sukarela.

Ujungpandang;

Mengetatahui,
Orang Tua/wali

Yang membuat pernyataan,

nama terang

nama terang

FORMULIR PENGUMPULAN DATA PENELITIAN
(PRETES / POSTES 1 / POSTES 2)

- I. N a m a :
- No.Stb. :
- Jurusan/Semester :
- Fakultas :
-
- II. U m u r : tahun.
- Berat Badan : kg.
- Tinggi Badan : cm.
- Jenis kelamin : Laki-laki.
-
- III. Data pengukuran otot tungkai.
1. Tabal lemak : Paha kanan : mm.
- Betis kanan : mm.
- Paha kiri : mm.
- Betis kiri : mm.
-
2. Daya ledak.
- Vertical jump : a. cm.
- b. cm.
- c. cm.
-
3. Kekuatan otot : a. kg.
- b. kg.
- c. kg.

Ujung Pandang;
Peneliti

Lampiran 17

DAFTAR ALAT ATAU INSTRUMEN PENELITIAN

1. Barbel : Olympic (Kg) - USA.
2. Back and Leg Dynamometer (Kg) : Nagoya - Jepang.
3. Stop-watch (1/100 detik) : Seiko - Jepang.
4. Meteran baja (Cm) : Tricle Brand - Shanghai Cina.
5. Alat ukur Vertival Jump.
6. Metronome : Trestiss Imo - Jepang.
7. Timbangan (Kg) : Ulo Vlig - Rep.Ireland.
8. Ukuran tinggi.
9. Caliper Skin-fold (Mm) : Tokyo Super - Jepang.

DEPARTEMEN PANDIDIKAN DAN KEBUDAYAAN
INSTITUT KEGURUAN DAN ILMU PENDIDIKAN UJUNG Pandang
FAKULTAS PENDIDIKAN OLARAGA DAN KESEHATAN
Alamat: Kampus FPOK IKIP Banta-Bantaeng No.Telp. 872602.

SURAT TUGAS/IZIN

No. 708/PT.34.H4.FPOK/N. 94

Dengan ini kami menugaskan/mengizin :

Nama : Dirhamzah M. Mangkona, Drs.
N I P : 130 536 008
Unit Kerja : FPOK IKIP Ujung Pandang
Tugas : Melaksanakan penelitian, dan untuk menggunakan fasilitas di FPOK IKIP Ujung Pandang.
Tempat : di Ujung Pandang
Jangka Waktu :
Lain - lain : Sesuai surat permintaan izin dari Departemen Pendidikan dan Kebudayaan Universitas Airlangga tanggal 13 September 1994 nomor 782/PT.03.H4.PPs/N/1994.

Harap dilaksanakan dengan sebaik-baiknya dan menyampaikan laporan setelah selesai melaksanakan tugas.

Ujung Pandang, 29 September 1994



Dr. H. M. Anwar Pasau, M.A.
FPO Nip. 130 190 543



Departemen Pendidikan dan Kebudayaan
INSTITUT KEGURUAN DAN ILMU PENDIDIKAN UJUNG PANDANG
FAKULTAS PENDIDIKAN OLAAHRAGA DAN KESEHATAN

Kampus FPOK IKIP Banta Bantaeng Telepon : 872602
Ujung Pandang 90222

Lampiran 19

SURAT KETERANGAN

Nomor : 1082/PT.34.H4.FPOK/N. 96

Kami yang bertanda tangan di bawah ini, menerangkan bahwa :

N a m a : Drs.Dirhamzah M.Mangkona, M.S.

N I M : 099211224/D.

Mahasiswa : S3 pada program Pascasarjana Universitas
Airlangga Surabaya

Tempat Peneli-
tian : FPOK IKIP Ujungpandang

benar yang tersebut namanya di atas telah melaksanakan penelitian mulai bulan September s.d. bulan Desember 1995 sesuai dengan surat izin nomor 708/PT.34.H4.FPOK/N. 94 tanggal 29 September 1994 dalam rangka penyusunan Disertasi pada program Pascasarjana (S3) di Universitas Airlangga Surabaya.

Demikian surat keterangan ini kami buat dengan sebenarnya untuk dipergunakan sebagaimana mestinya.

Ujungpandang, 22 September 1996

D e k a n,


Prof. Dr. M. Kasmad Yahya
Nip. 130 369 579