



**LAMPIRAN-LAMPIRAN**

## Lampiran 1. DOKUMENTASI PENELITIAN

Gambar 1. Persiapan Pemanasan Sebelum Melaksanakan Kegiatan Pre-Test di Lapangan Umum Dalung



Gambar 2. Pelaksanaan *Pre -Test* Daya Ledak Otot Tungkai (*Standing Broad Jump*)



Gambar 3. Pelaksanaan Pre-Test Lari 60 meter



Gambar 4. Pelaksanaan Pelatihan *Hop Sprint*



Gambar 5. Pelaksanaan Pelatihan *Step Up*



Gambar. 6. Post-Tes Daya Ledak Otot Tungkai(*Standing Broad Jump*)



Gambar 7. Post-Tes Lari 60 meter





Gambar 8. Pendinginan, Penutup, Berdoa dan Istirahat



**Lampiran 2. KALENDER**

**JANUARI**

1	8	15	22	29
2	9	16	23	30
3	10	17	24	31
4	11	18	25	
5	12	19	26	
6	13	20	27	
7	14	21	28	

**FEBRUARI**

	5	12	19	26
	6	13	20	27
	7	14	21	28
1	8	15	22	
2	9	16	23	
3	10	17	24	
4	11	18	25	



**Lampiran 3. Program Pelaksanaan Pelatihan *Hop Sprint* dan *Step Up***

No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten-sitas	Reco-very
1	Sabtu, 7-1-2023	<p>Tes Awal Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>Strecthing</i> Pengarahan cara tes awal (<i>Standing Broad Jump</i> dan Lari 60 meter) Inti (60 menit) <b>5.2.2</b> Pengambilan tes awal <i>standing broad jump</i> 2 X lompatan masing-masing siswa <b>6.2.2</b> Pengambilan tes lari 60 meter Pendinginan (15 menit) <b>7.2.2</b> <i>Strecthin</i>g <b>8.2.2</b> Evaluasi/tanya jawab <b>9.2.2</b> Doa penutup</p>			70%	2-5 menit
2	Selasa, 10-1-2023	<p>Pemanasan (15 menit) <b>10.2.2</b> Berdoa/presensi <b>11.2.2</b> <i>Jogging</i> <b>12.2.2</b> <i>strecthin</i>g Inti (60 menit) <b>13.2.2</b> Melakukan latihan <i>Hop sprint</i> dan <i>Step Up</i> Pendinginan (15 menit) <b>14.2.2</b> <i>Strecthin</i>g <b>15.2.2</b> Evaluasi/tanya jawab</p>	5	3	70%	2-5 menit

No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten- sitas	Reco- very
		<b>16.2.2</b> Doa penutup				
3	Kamis, 12-1-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) <b>17.2.2</b> Melakuk an latihan <i>Hop</i> <i>sprint dan Step</i> <i>Up</i> Pendinginan (15 menit) <b>18.2.2</b> <i>Strecthin</i> <i>g</i> <b>19.2.2</b> Evaluasi/ tanya jawab <b>20.2.2</b> Doa penutup	5	3	70%	2-5 menit
4	Selasa, 17-1-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) <b>21.2.2</b> Melakuk an latihan <i>Hop</i> <i>sprint dan Step</i> <i>Up</i> Pendinginan (15 menit) <b>22.2.2</b> <i>Strecthin</i> <i>g</i> <b>23.2.2</b> Evaluasi/ tanya jawab <b>24.2.2</b> Doa penutup	5	3	70%	2-5 menit
5	Kamis, 19-1-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) <b>25.2.2</b> Melakuk an latihan <i>Hop</i> <i>sprint dan Step</i> <i>Up</i>	6	3	75%	2-5 menit

No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten- sitas	Reco- very
		Pendinginan (15 menit) <b>26.2.2</b> <i>Strecthin</i> <i>g</i> <b>27.2.2</b> Evaluasi/ tanya jawab <b>28.2.2</b> Doa penutup				
6	Sabtu, 21-1-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) <b>29.2.2</b> Melakuk an latihan <i>Hop</i> <i>sprint dan Step</i> <i>Up</i> Pendinginan (15 menit) <b>30.2.2</b> <i>Strecthin</i> <i>g</i> <b>31.2.2</b> Evaluasi/ tanya jawab <b>32.2.2</b> Doa penutup	6	3	75%	2-5 menit
7	Selasa, 24-1-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) Melakukan latihan <i>Hop</i> <i>sprint dan Step Up</i> Pendinginan (15 menit) <b>33.2.2</b> <i>Strecthin</i> <i>g</i> <b>34.2.2</b> Evaluasi/ tanya jawab <b>35.2.2</b> Doa penutup	6	3	75%	2-5 menit
8	Kamis, 26-1-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) <b>36.2.2</b> Melakuk	7	4	80%	2-5 menit

No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten- sitas	Reco- very
		<p>an latihan <i>Hop sprint dan Step Up</i></p> <p>Pendinginan (15 menit)</p> <p><b>37.2.2</b> <i>Strecthing</i></p> <p><b>38.2.2</b> Evaluasi/ tanya jawab</p> <p><b>39.2.2</b> Doa penutup</p>				
9	Sabtu, 28-1-2023	<p>Pemanasan (15 menit)</p> <p>Berdoa/presensi</p> <p><i>Jogging strecthing</i></p> <p>Inti (60 menit)</p> <p><b>40.2.2</b> Melakuk an latihan <i>Hop sprint dan Step Up</i></p> <p>Pendinginan (15 menit)</p> <p><b>41.2.2</b> <i>Strecthing</i></p> <p><b>42.2.2</b> Evaluasi/ tanya jawab</p> <p><b>43.2.2</b> Doa penutup</p>	7	4	80%	2-5 menit
10	Selasa, 31-1-2023	<p>Pemanasan (15 menit)</p> <p>Berdoa/presensi</p> <p><i>Jogging strecthing</i></p> <p>Inti (60 menit)</p> <p><b>44.2.2</b> Melakuk an latihan <i>Hop sprint dan Step Up</i></p> <p>Pendinginan (15 menit)</p> <p><b>45.2.2</b> <i>Strecthing</i></p> <p><b>46.2.2</b> Evaluasi/ tanya jawab</p> <p><b>47.2.2</b> Doa penutup</p>	7	4	80%	2-5 menit
11	Kamis,	Pemanasan (15 menit)	6	4	85%	2-5

No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten- sitas	Reco- very menit
	2-2-2023	Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) <b>48.2.2</b> Melakuk an latihan <i>Hop</i> <i>sprint dan Step</i> <i>Up</i> Pendinginan (15 menit) <b>49.2.2</b> <i>Strecthin</i> <i>g</i> <b>50.2.2</b> Evaluasi/ tanya jawab <b>51.2.2</b> Doa penutup				
12	Sabtu, 4-2-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) <b>52.2.2</b> Melakuk an latihan <i>Hop</i> <i>sprint dan Step</i> <i>Up</i> Pendinginan (15 menit) <b>53.2.2</b> <i>Strecthin</i> <i>g</i> <b>54.2.2</b> Evaluasi/ tanya jawab <b>55.2.2</b> Doa penutup	6	4	85%	2-5 menit
13	Minggu, 5-2-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) Melakukan latihan <i>Hop</i> <i>sprint dan Step Up</i> Pendinginan (15 menit) <b>56.2.2</b> <i>Strecthin</i> <i>g</i> <b>57.2.2</b> Evaluasi/ tanya jawab <b>58.2.2</b> Doa	6	4	85%	2-5 menit

No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten-sitas	Reco-very
		penutup				
14	Selasa, 7-2-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) Melakukan latihan <i>Hop sprint dan Step Up</i> Pendinginan (15 menit) <b>59.2.2</b> <i>Strecthin</i> <i>g</i> <b>60.2.2</b> Evaluasi/ tanya jawab <b>61.2.2</b> Doa penutup	6	5	75%	2-5 menit
15	Kamis, 9-2-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) Melakukan latihan <i>Hop sprint dan Step Up</i> Pendinginan (15 menit) <b>62.2.2</b> <i>Strecthin</i> <i>g</i> <b>63.2.2</b> Evaluasi/ tanya jawab <b>64.2.2</b> Doa penutup	6	5	75%	2-5 menit
16	Sabtu, 11-2-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) Melakukan latihan <i>Hop sprint dan Step Up</i> Pendinginan (15 menit) <b>65.2.2</b> <i>Strecthin</i> <i>g</i> <b>66.2.2</b> Evaluasi/ tanya jawab <b>67.2.2</b> Doa penutup	6	5	75%	2-5 menit



No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten- sitas	Reco- very
17	Minggu, 12-2-2023	Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) <b>68.2.2</b> Melakuk an latihan <i>Hop</i> <i>sprint dan Step</i> <i>Up</i> Pendinginan (15 menit) <b>69.2.2</b> <i>Strecthin</i> <i>g</i> <b>70.2.2</b> Evaluasi/ tanya jawab <b>71.2.2</b> Doa penutup	7	5	80%	2-5 menit
18	Selasa, 14-2-2023	Pemanasan (15 menit) Berdoa/absensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) <b>72.2.2</b> Melakuk an latihan <i>Hop</i> <i>sprint dan Step</i> <i>Up</i> Pendinginan (15 menit) <b>73.2.2</b> <i>Strecthin</i> <i>g</i> <b>74.2.2</b> Evaluasi/ tanya jawab <b>75.2.2</b> Doa penutup	7	5	80%	2-5 menit
19	Kamis, 16-2-2023	Pemanasan (15 menit) Berdoa/absensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) Melakukan latihan <i>Hop</i> <i>sprint dan Step</i> <i>Up</i> Pendinginan (15 menit) <b>76.2.2</b> <i>Strecthin</i> <i>g</i> <b>77.2.2</b> Evaluasi/	7	5	80%	2-5 menit

No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten-sitas	Reco-very
		tanya jawab <b>78.2.2</b> Doa penutup				
20	Sabtu, 18-2-2023	Pemanasan (15 menit) Berdoa/absensi <i>Jogging stretching</i> Inti (60 menit) <b>79.2.2</b> Melakukan latihan <i>Hop sprint dan Step Up</i> Pendinginan (15 menit) <b>80.2.2</b> <i>Strechin</i> <i>g</i> <b>81.2.2</b> Evaluasi/tanya jawab <b>82.2.2</b> Doa penutup	8	4	85%	2-5 menit
21	Minggu, 19-2-2023	Pemanasan (15 menit) Berdoa/absensi <i>Jogging stretching</i> Inti (60 menit) Melakukan latihan <i>Hop sprint dan Step Up</i> Pendinginan (15 menit) <b>83.2.2</b> <i>Strechin</i> <i>g</i> <b>84.2.2</b> Evaluasi/tanya jawab <b>85.2.2</b> Doa penutup	8	4	85%	2-5 menit
22	Selasa, 21-2-2023	Pemanasan (15 menit) Berdoa/absensi <i>Jogging stretching</i> Inti (60 menit) Melakukan latihan <i>Hop sprint dan Step Up</i> Pendinginan (15 menit) <b>86.2.2</b> <i>Strechin</i>	8	4	85%	2-5 menit

No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten- sitas	Reco- very
		g <b>87.2.2</b> Evaluasi/ tanya jawab <b>88.2.2</b> Doa penutup				
23	Kamis, 23-2-2023	Pemanasan (15 menit) Berdoa/absensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) Melakukan latihan <i>Hop</i> <i>sprint dan Step Up</i> Pendinginan (15 menit) <b>89.2.2</b> <i>Strecthin</i> g <b>90.2.2</b> Evaluasi/ tanya jawab <b>91.2.2</b> Doa penutup	7	4	80%	2-5 menit
24	Sabtu, 25-2-2023	Pemanasan (15 menit) Berdoa/absensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) Melakukan latihan <i>Hop</i> <i>sprint dan Step Up</i> Pendinginan (15 menit) <b>92.2.2</b> <i>Strecthin</i> g <b>93.2.2</b> Evaluasi/ tanya jawab <b>94.2.2</b> Doa penutup	7	4	80%	2 - 5 menit
25	Minggu, 26-2-2023	Pemanasan (15 menit) Berdoa/absensi <i>Jogging</i> <i>strecthing</i> Inti (60 menit) Melakukan latihan <i>Hop</i> <i>sprint dan Step Up</i> Pendinginan (15 menit) <b>95.2.2</b> <i>Strecthin</i>	7	4	80%	2-5 menit

No	Hari dan Tanggal	Materi Program	Repetisi	Set	Inten- sitas	Reco- very
		g <b>96.2.2</b> Evaluasi/ tanya jawab <b>97.2.2</b> Doa penutup				
26	Selasa, 28-2-2023	Tes akhir Pemanasan (15 menit) <b>98.2.2</b> Berdoa/p resensi <b>99.2.2</b> Pengarah an tes akhir <b>100.2.2</b> <i>Jogging</i> <b>101.2.2</b> <i>Strecthni</i> g Inti (60 menit) <b>102.2.2</b> Test <i>standing broad</i> <i>jump</i> <b>103.2.2</b> 2X lompatan <b>104.2.2</b> Test lari 60 meter Pendinginan <b>105.2.2</b> <i>Strecthni</i> g <b>106.2.2</b> Evaluasi/ tanya jawab <b>107.2.2</b> Doa penutup			100%	2-5 menit

**Lampiran 4. Data Penelitian Pelatihan Konvensional**

1 s/d 26	Sabtu, 7-1-2023 s/d Selasa, 28-2-2023	<p>a.Pemanasan (15 menit) Berdoa/presensi <i>Jogging</i> <i>strecthing</i></p> <p>b.Inti (60 menit) Melakukan latihan konvensional</p> <p>c.Pendinginan (15 menit)</p> <p><b>5.2.2</b> <i>Strecthing</i></p> <p><b>6.2.2</b> Evaluasi/ tanya jawab</p> <p><b>7.2.2</b> Doa penutup</p>				
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**Lampiran 5. Data Penelitian Pelatihan *Hop Sprint***

HASIL TES							
PELATIHAN <i>HOP SPRINT</i>							
NO	NAMA	DAYA LEDAK OTOT TUNGKAI			KECEPATAN		
		PRE TES	POS TES	GAINS	PRE TES	POS TES	GAINS
1	Tegar Gilang Ramadhan	205	214	9	9.2	8.3	0.9
2	I Wayan Agus Wahyu Dipayana	180	187	7	10.8	10.6	0.2
3	I Wayan Aditya Yogiarta	180	188	8	10	9.6	0.4
4	I Made Agus Ferdinata	230	236	6	9	8.7	0.3
5	I Made Purwana Adiputra	220	229	9	10.1	9.6	0.5
6	Mohammad Ardiansah	180	189	9	11.7	10.9	0.8
7	I Gusti Ngurah Adam Darmayoga	180	187	7	11.4	11	0.4
8	Abraham Firman Kristian Dake	188	200	12	11	10.8	0.2
9	I Kadek Tresna Aditya Kusuma	166	177	11	9.9	9.6	0.3
10	I Komang Riski Aryawiguna	180	189	9	10.8	10.5	0.3
11	Ni Putu Risma Riana Putri	204	211	7	10.2	9.6	0.6
12	Kadek Agus Aditya Prasetya	190	196	6	11.1	10.5	0.6
13	Ni Made Amelia Puspita Dewi	160	168	8	11.1	10.6	0.5
14	I Kadek Deva Nanda Putra	177	186	9	10.8	10.6	0.2
15	I Kadek Ngr Krisna Duwivayana	195	201	6	8.9	8.3	0.6



**Lampiran 6. Data Penelitian Pelatihan *Step Up***

HASIL TES							
PELATIHAN <i>STEP UP</i>							
NO	NAMA	DAYA LEDAK OTOT TUNGKAI			KECEPATAN		
		PRE TES	POS TES	GAINS	PRE TES	POS TES	GAINS
1	Anak Agung Ayu Bintang Anjani	195	201	6	10.4	10.2	0.2
2	Daiva Aditya Wicaksana	242	246	4	8.8	8.6	0.2
3	I Made Krisna Adipradnyana	180	184	4	11.2	11	0.2
4	Kadek Dimayana	222	226	4	10.8	10.6	0.2
5	Ni Kadek Putri Maheswari Tasha Devana	225	229	4	9.8	9.8	0
6	Dewa Ayu Putu Melia Pitayanti	194	196	2	10.9	10.8	0.1
7	I Komang Dias Kusuma Trisnanda	210	213	3	11	10.9	0.1
8	Putu Elicia Cristabela	230	236	6	11	10.5	0.5
9	I Putu Gede Surya Bramasta	216	221	5	8.8	8.3	0.5
10	I Kadek Adhitya Pradnya Suarnadiva	190	195	5	10.3	10	0.3
11	Ni Wayan Ratih Pradnyasari	205	209	4	11.4	11	0.4
12	Ni Made Prameswari Nadine Putri Maharani	224	229	5	11.1	10.8	0.3
13	Dewa Nyoman Bayu Putra	173	179	6	11.2	10.9	0.3
14	I Made Bagus Wiguna Trikayana	210	214	4	8.8	8.7	0.1
15	I Kadek Widianara	210	215	5	8.4	8.3	0.1



## Lampiran 7. Data Penelitian Pelatihan Konvensional

HASIL TES							
PELATIHAN KONVENSIONAL							
NO	NAMA	DAYA LEDAK OTOT TUNGKAI			KECEPATAN		
		PRE TES	POS TES	GAINS	PRE TES	POS TES	GAINS
1	Dewa Nyoman Triandika Permana	185	186	1	9.8	9.7	0.1
2	Gede Rasya Dewangga Putra	187	188	1	9.3	9.3	0
3	Gusti Ayu Cahyaditya Pradnyandari	185	186	1	10.9	10.9	0
4	I Dewa Ayu Winda Adnyani	208	209	1	9.5	9.6	-0.1
5	I Gde Bagus Diatmika	210	211	1	9.8	9.8	0
6	I Gede Arya Yoga Saputra	190	191	1	10.5	10.4	0.1
7	I Gede Bagus Mahanata Putra	190	191	1	11.2	11.2	0
8	I Gede Krisna Ananda Wiguna	195	195	0	11.2	11.2	0
9	I Gede Putu Bagus Eka Putra	205	205	0	9.9	9.9	0
10	I Gede Risky Ananda Putra	193	194	1	10.2	10.2	0
11	I Gusti Ayu Mirahningrat	180	182	2	11.3	11.2	0.1
12	I Gusti Ayu Nayla Widya Prasanthi	185	187	2	11	11	0
13	I Gusti Ngurah Yoga Pramana Putra	175	178	3	11.3	11.2	0.1
14	I Kadek Indra Dwi Lesmana	185	185	0	9.5	9.4	0.1
15	I Ketut Riyan Abadi	190	193	3	9	9	0





**Lampiran 8. Hasil Analisis Data Deskriptif DLOT**

Lampiran 9. **Statistics**

		HOP-SPRINT-DLOT	STEP-UP-DLOT	KONVENSIONA L-DLOT
N	Valid	15	15	15
	Missing	0	0	0
Mean		8.20	4.47	1.20
Median		8.00	4.00	1.00
Std. Deviation		1.781	1.125	.941
Variance		3.171	1.267	.886
Range		6	4	3
Minimum		6	2	0
Maximum		12	6	3
Sum		123	67	18

**HOP-SPRINT-DLOT**

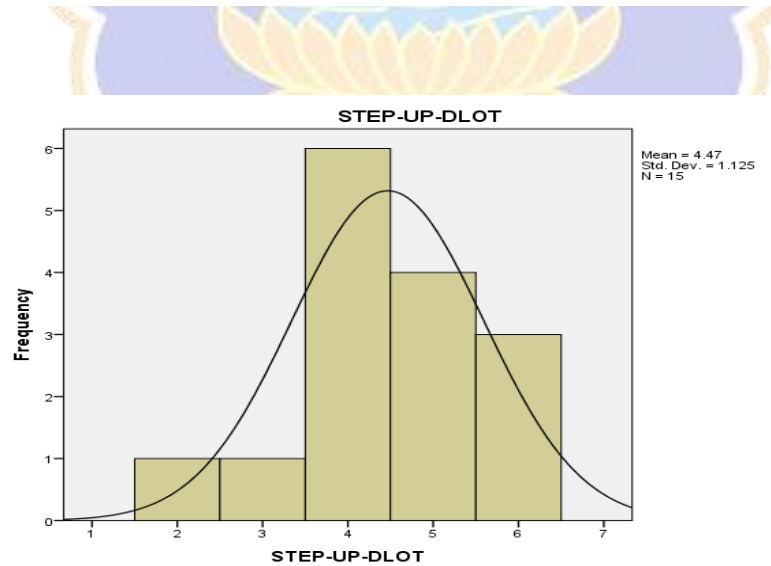
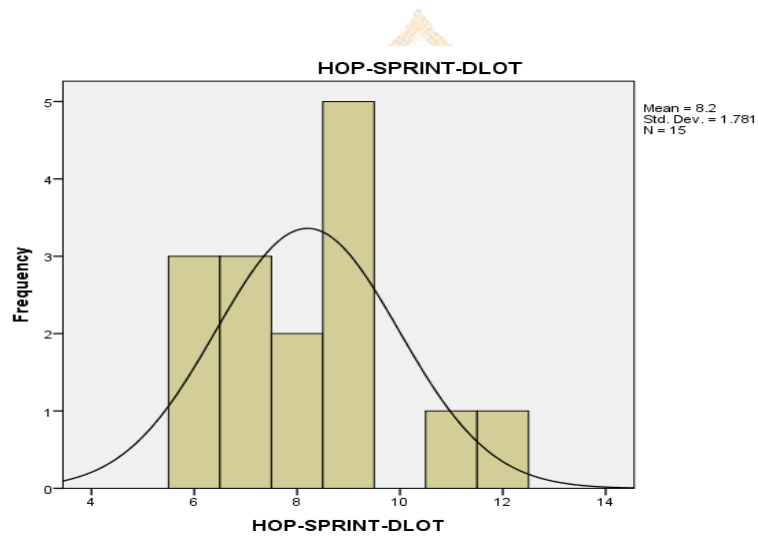
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	3	20.0	20.0	20.0
	7	3	20.0	20.0	40.0
	8	2	13.3	13.3	53.3
	9	5	33.3	33.3	86.7
	11	1	6.7	6.7	93.3
	12	1	6.7	6.7	100.0
	Total	15	100.0	100.0	

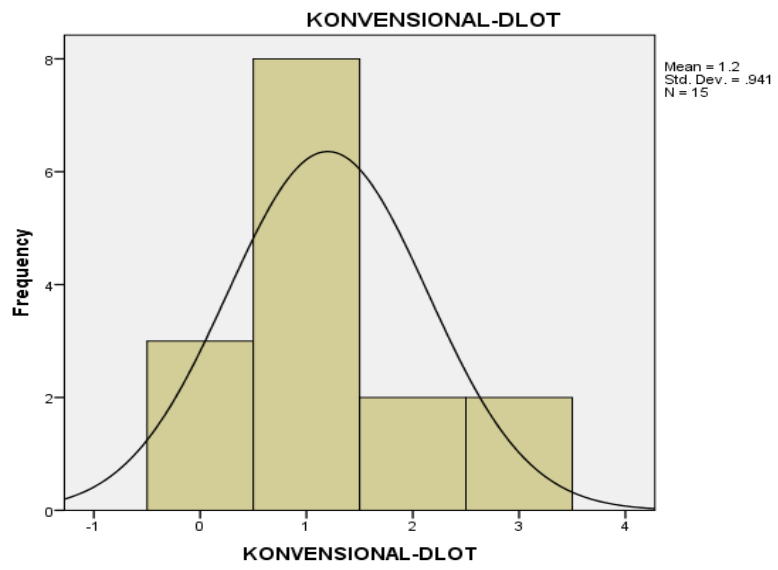
**STEP-UP-DLOT**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	6.7	6.7	6.7
	3	1	6.7	6.7	13.3
	4	6	40.0	40.0	53.3
	5	4	26.7	26.7	80.0
	6	3	20.0	20.0	100.0
	Total	15	100.0	100.0	

KONVENSIONAL-DLOT					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	20.0	20.0	20.0
	1	8	53.3	53.3	73.3
	2	2	13.3	13.3	86.7
	3	2	13.3	13.3	100.0
	Total	15	100.0	100.0	

## Histogram





## Lampiran 10. Hasil Analisis Deskriptif Kecepatan

Lampiran 11. **Statistics**

		HOP-SPRINT-KECEPATAN	STEP-UP-KECEPATAN	KONVENSIONALA L-KECEPATAN
N	Valid	15	15	15
	Missing	0	0	0
Mean		.453	.233	.027
Median		.400	.200	.000
Std. Deviation		.2167	.1496	.0594
Variance		.047	.022	.004
Range		.7	.5	.2
Minimum		.2	.0	-.1
Maximum		.9	.5	.1
Sum		6.8	3.5	.4

## Frequency Table

**HOP-SPRINT-KECEPATAN**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.2	3	20.0	20.0	20.0
	.3	3	20.0	20.0	40.0
	.4	2	13.3	13.3	53.3
	.5	2	13.3	13.3	66.7
	.6	3	20.0	20.0	86.7
	.8	1	6.7	6.7	93.3
	.9	1	6.7	6.7	100.0
	Total	15	100.0	100.0	

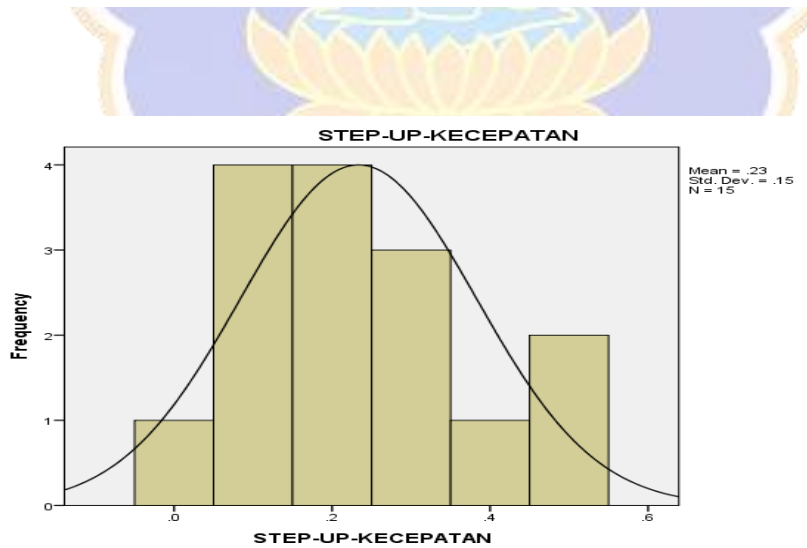
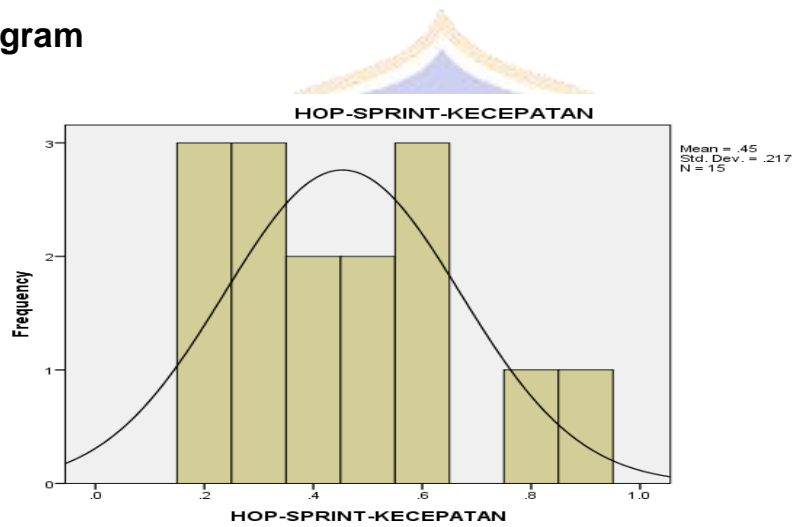
**STEP-UP-KECEPATAN**

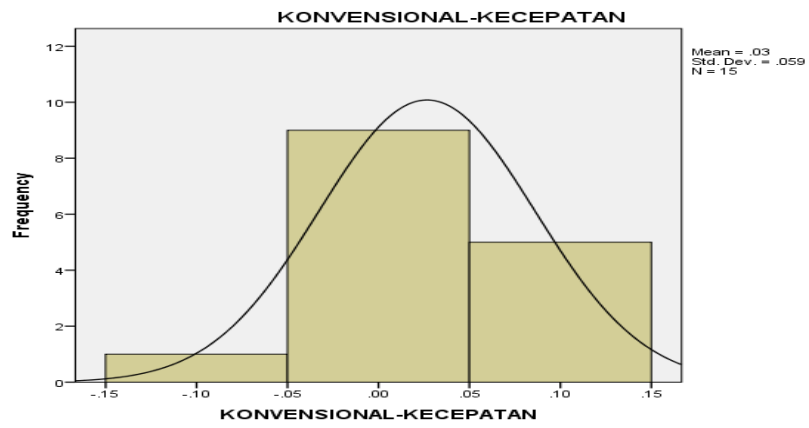
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.0	1	6.7	6.7	6.7
	.1	4	26.7	26.7	33.3
	.2	4	26.7	26.7	60.0
	.3	3	20.0	20.0	80.0
	.4	1	6.7	6.7	86.7
	.5	2	13.3	13.3	100.0
	Total	15	100.0	100.0	

**KONVENSIONAL-KECEPATAN**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-.1	1	6.7	6.7	6.7
	.0	9	60.0	60.0	66.7
	.1	5	33.3	33.3	100.0
	Total	15	100.0	100.0	

**Histogram**





## Lampiran 12. Hasil Analisis Normalitas dan Homogenitas

MP

**Case Processing Summary**

		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
	MP						
KECEPATAN	MP-HOP SPRINT	15	100.0%	0	0.0%	15	100.0%
	MP-STEP UP	15	100.0%	0	0.0%	15	100.0%
DLOT	MP-HOP SPRINT	15	100.0%	0	0.0%	15	100.0%
	MP-STEP UP	15	100.0%	0	0.0%	15	100.0%

**Descriptives**

MP		Statistic	Std. Error		
KECEPATAN	MP-HOP SPRINT	Mean	.453	.0559	
		95% Confidence Interval for Mean	Lower Bound	.333	
			Upper Bound	.573	
		5% Trimmed Mean	.443		
		Median	.400		
		Variance	.047		
		Std. Deviation	.2167		
		Minimum	.2		
		Maximum	.9		
		Range	.7		
		Interquartile Range	.3		
		Skewness	.653	.580	
	Kurtosis	-.296	1.121		
	MP-STEP UP	Mean	.233	.0386	
		95% Confidence Interval for Mean	Lower Bound	.150	
			Upper Bound	.316	
		5% Trimmed Mean	.231		
		Median	.200		
		Variance	.022		
		Std. Deviation	.1496		
Minimum		.0			
Maximum		.5			
Range		.5			
Interquartile Range		.2			
Skewness		.520	.580		
Kurtosis	-.439	1.121			
DLOT	MP-HOP SPRINT	Mean	8.20	.460	
		95% Confidence Interval for Mean	Lower Bound	7.21	
			Upper Bound	9.19	
		5% Trimmed Mean	8.11		

		Median	8.00		
		Variance	3.171		
		Std. Deviation	1.781		
		Minimum	6		
		Maximum	12		
		Range	6		
		Interquartile Range	2		
		Skewness	.616	.580	
		Kurtosis	.039	1.121	
	MP-STEP UP	Mean	4.47	.291	
		95% Confidence Interval for Mean	Lower Bound	3.84	
			Upper Bound	5.09	
		5% Trimmed Mean	4.52		
		Median	4.00		
		Variance	1.267		
		Std. Deviation	1.125		
		Minimum	2		
		Maximum	6		
		Range	4		
		Interquartile Range	1		
		Skewness	-.425	.580	
		Kurtosis	.261	1.121	

#### Tests of Normality

	MP	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
KECEPATAN	MP-HOP SPRINT	.160	15	.200*	.920	15	.192
	MP-STEP UP	.188	15	.160	.924	15	.221
DLOT	MP-HOP SPRINT	.193	15	.136	.910	15	.137
	MP-STEP UP	.206	15	.087	.905	15	.113

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

#### Test of Homogeneity of Variance

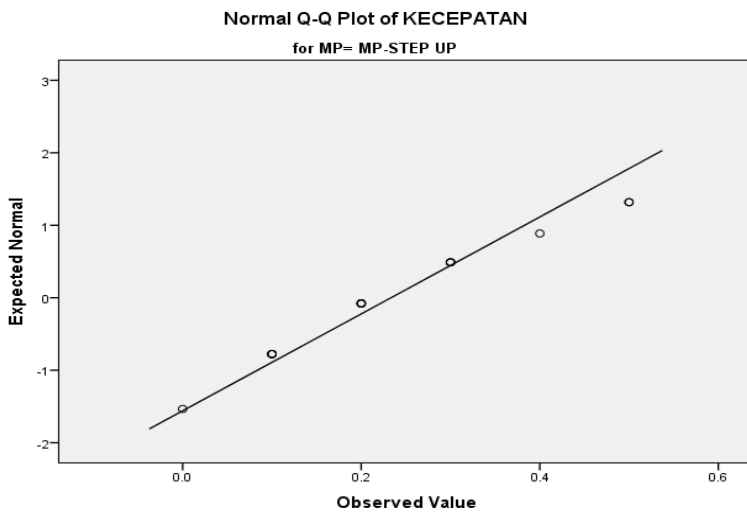
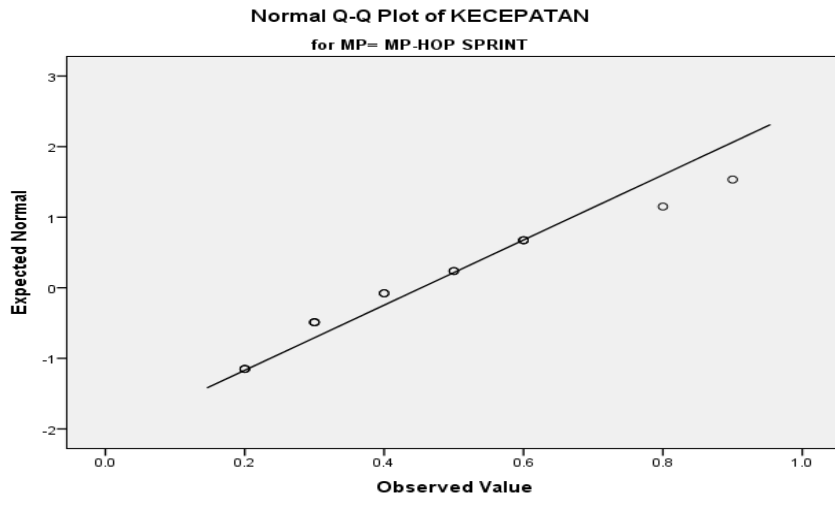
		Levene Statistic	df1	df2	Sig.
KECEPATAN	Based on Mean	2.382	1	28	.134
	Based on Median	1.955	1	28	.173
	Based on Median and with adjusted df	1.955	1	25.833	.174
	Based on trimmed mean	2.298	1	28	.141



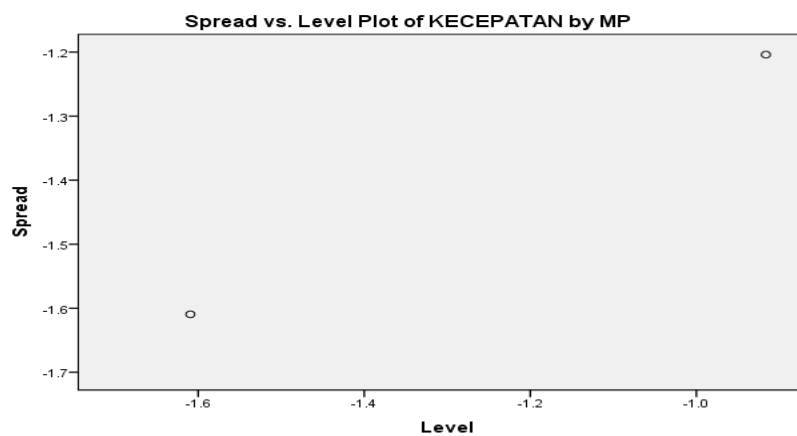
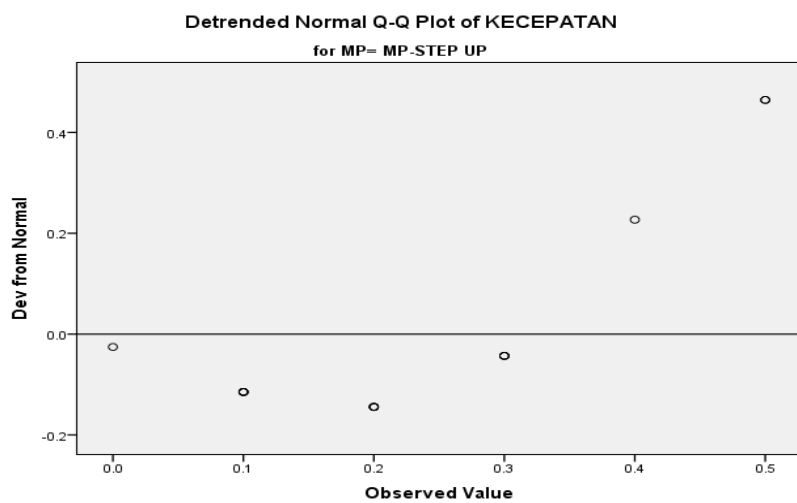
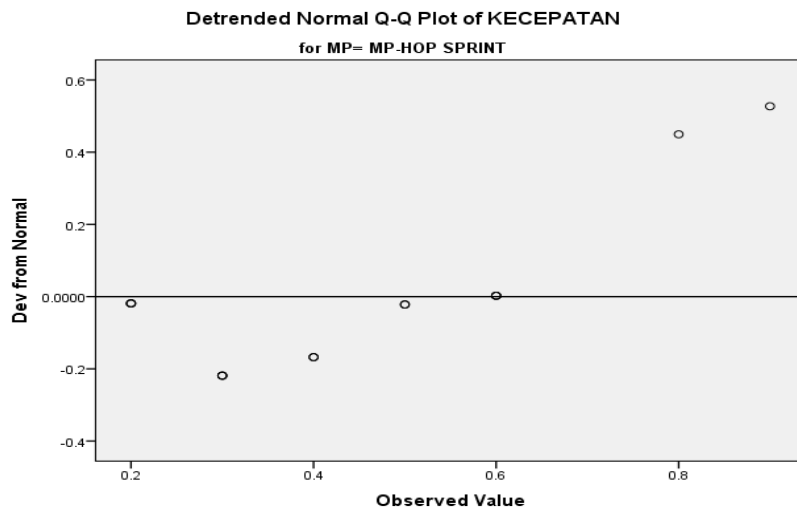
DLOT	Based on Mean	2.780	1	28	.107
	Based on Median	2.358	1	28	.136
	Based on Median and with adjusted df	2.358	1	26.575	.136
	Based on trimmed mean	2.638	1	28	.116

## KECEPATAN

### Normal Q-Q Plots



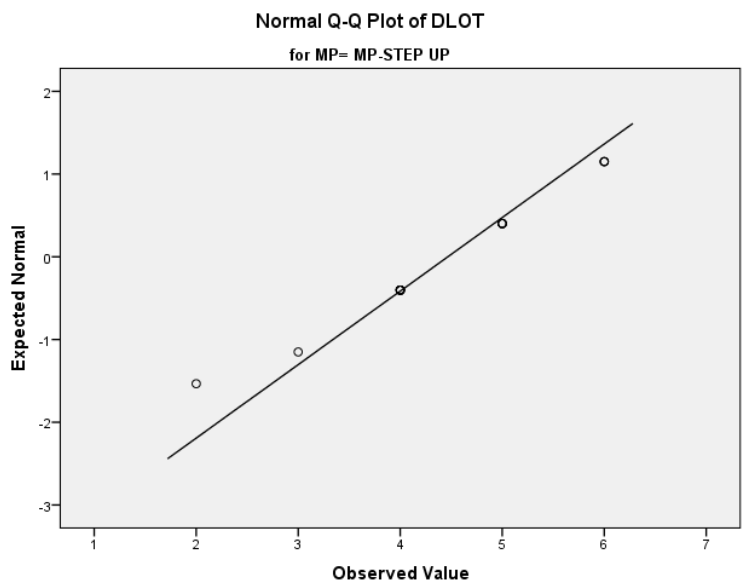
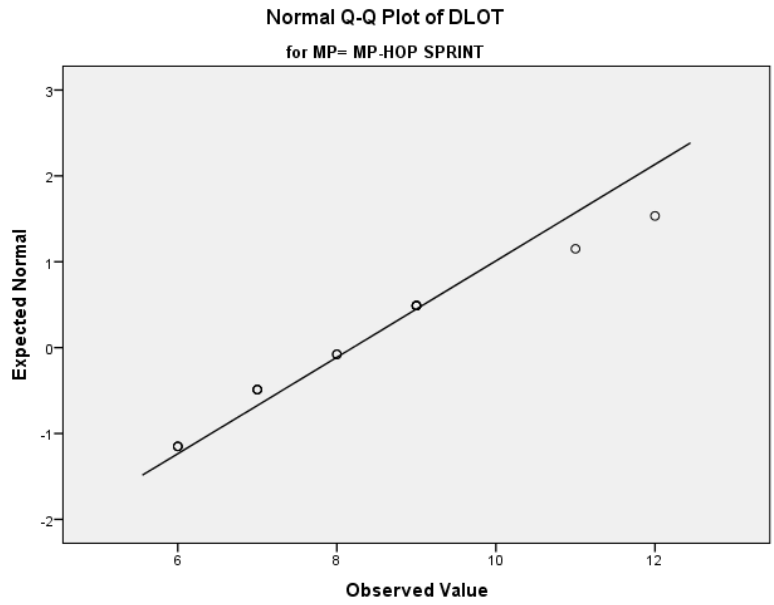
## Detrended Normal Q-Q Plots



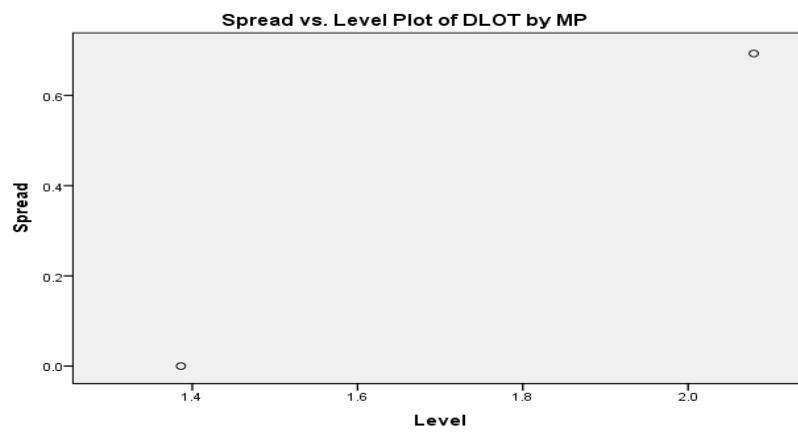
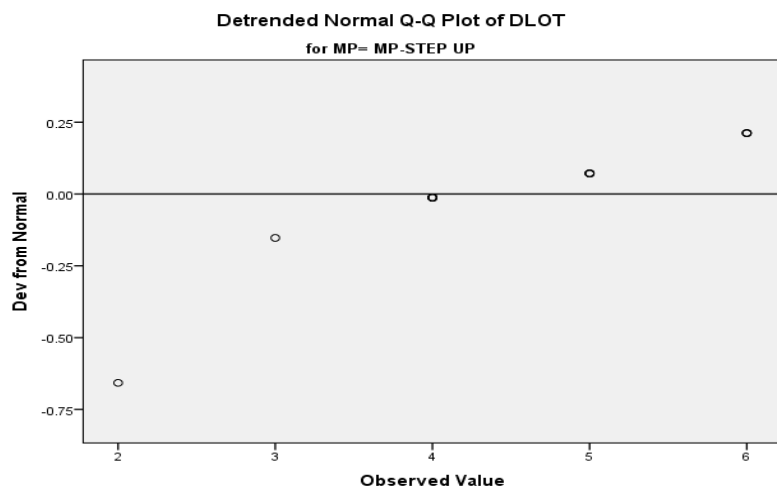
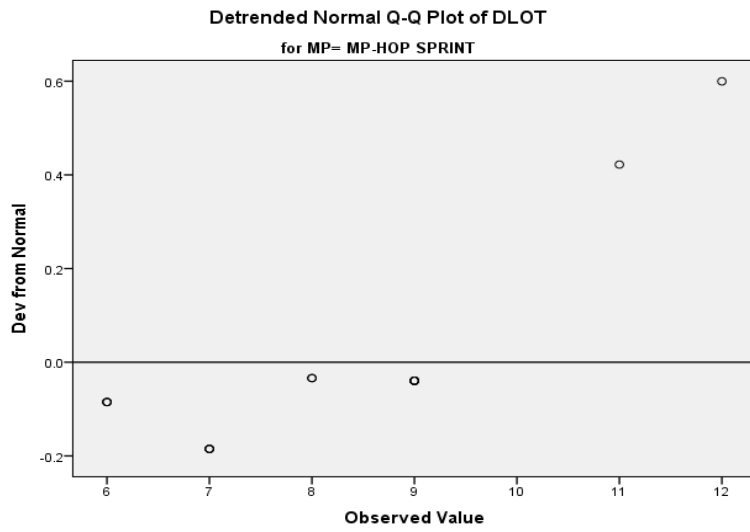
\* Plot of LN of Spread vs LN of Level  
Slope = .585 Power for transformation = .415

# DLOT

## Normal Q-Q Plots



## Detrended Normal Q-Q Plots



\* Plot of LN of Spread vs LN of Level  
Slope = 1.000 Power for transformation = .000

### Lampiran 13. Hasil Analisis Data Kolinieritas

**Correlations**

		KECEPATAN	DLOT
KECEPATAN	Pearson Correlation	1	.420*
	Sig. (2-tailed)		.021
	N	30	30
DLOT	Pearson Correlation	.420*	1
	Sig. (2-tailed)	.021	
	N	30	30

\*. Correlation is significant at the 0.05 level (2-tailed).



## Lampiran 14. Hasil Analisis MANOVA

### General Linear Model

#### Between-Subjects Factors

		Value Label	N
MP	1	MP-HOP SPRINT	15
	2	MP-STEP UP	15

#### Descriptive Statistics

	MP	Mean	Std. Deviation	N
KECEPATAN	MP-HOP SPRINT	.453	.2167	15
	MP-STEP UP	.233	.1496	15
	Total	.343	.2144	30
DLOT	MP-HOP SPRINT	8.20	1.781	15
	MP-STEP UP	4.47	1.125	15
	Total	6.33	2.397	30

#### Box's Test of Equality of Covariance Matrices<sup>a</sup>

Box's M	10.155
F	3.123
df1	3
df2	141120.000
Sig.	.248

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + MP

#### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.958	307.580 <sup>b</sup>	2.000	27.000	.000
	Wilks' Lambda	.042	307.580 <sup>b</sup>	2.000	27.000	.000
	Hotelling's Trace	22.784	307.580 <sup>b</sup>	2.000	27.000	.000
	Roy's Largest Root	22.784	307.580 <sup>b</sup>	2.000	27.000	.000

MP	Pillai's Trace	.671	27.472 <sup>b</sup>	2.000	27.000	.000
	Wilks' Lambda	.329	27.472 <sup>b</sup>	2.000	27.000	.000
	Hotelling's Trace	2.035	27.472 <sup>b</sup>	2.000	27.000	.000
	Roy's Largest Root	2.035	27.472 <sup>b</sup>	2.000	27.000	.000

a. Design: Intercept + MP

b. Exact statistic

#### Levene's Test of Equality of Error Variances<sup>a</sup>

	F	df1	df2	Sig.
KECEPATAN	2.382	1	28	.134
DLOT	2.780	1	28	.107

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + MP

#### Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	KECEPATAN	.363 <sup>a</sup>	1	.363	10.471	.003
	DLOT	104.533 <sup>b</sup>	1	104.533	47.107	.000
Intercept	KECEPATAN	3.536	1	3.536	102.010	.000
	DLOT	1203.333	1	1203.333	542.275	.000
MP	KECEPATAN	.363	1	.363	10.471	.003
	DLOT	104.533	1	104.533	47.107	.000
Error	KECEPATAN	.971	28	.035		
	DLOT	62.133	28	2.219		
Total	KECEPATAN	4.870	30			
	DLOT	1370.000	30			
Corrected Total	KECEPATAN	1.334	29			
	DLOT	166.667	29			

a. R Squared = .272 (Adjusted R Squared = .246)

b. R Squared = .627 (Adjusted R Squared = .614)

## Estimated Marginal Means

### MP

**Estimates**

Dependent Variable	MP	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
KECEPATAN	MP-HOP SPRINT	.453	.048	.355	.552
	MP-STEP UP	.233	.048	.135	.332
DLOT	MP-HOP SPRINT	8.200	.385	7.412	8.988
	MP-STEP UP	4.467	.385	3.679	5.255

**Pairwise Comparisons**

Dependent Variable	(I) MP	(J) MP	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	95% Confidence Interval for Difference <sup>b</sup>	
						Lower Bound	Upper Bound
KECEPATAN	MP-HOP SPRINT	MP-STEP UP	.220 <sup>*</sup>	.068	.003	.081	.359
	MP-STEP UP	MP-HOP SPRINT	-.220 <sup>*</sup>	.068	.003	-.359	-.081
DLOT	MP-HOP SPRINT	MP-STEP UP	3.733 <sup>*</sup>	.544	.000	2.619	4.848
	MP-STEP UP	MP-HOP SPRINT	-3.733 <sup>*</sup>	.544	.000	-4.848	-2.619

Based on estimated marginal means

\*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

**Multivariate Tests**

	Value	F	Hypothesis df	Error df	Sig.
Pillai's trace	.671	27.472 <sup>a</sup>	2.000	27.000	.000
Wilks' lambda	.329	27.472 <sup>a</sup>	2.000	27.000	.000
Hotelling's trace	2.035	27.472 <sup>a</sup>	2.000	27.000	.000
Roy's largest root	2.035	27.472 <sup>a</sup>	2.000	27.000	.000

Each F tests the multivariate effect of MP. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic



### Univariate Tests

Dependent Variable		Sum of Squares	Df	Mean Square	F	Sig.
KECEPATAN	Contrast	.363	1	.363	10.471	.003
	Error	.971	28	.035		
DLOT	Contrast	104.533	1	104.533	47.107	.000
	Error	62.133	28	2.219		

The F tests the effect of MP. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

### Metode Least Significant Difference(LSD)

Perbedaan nilai rata-rata kecepatan dan daya ledak otot tungkai antara kelompok metode pelatihan *hop sprint* dengan kelompok pelatihan *step up* pada siswa ekstrakurikuler atletik SMAN 1 Kuta Utara

$$LSD = t_{\alpha/2, N-a} \sqrt{\frac{2MSE}{n}}$$

Dengan,  $\alpha$  = taraf signifikan = 0,05

N = jumlah sampel total = 30

a = jumlah kelompok = 2

n = jumlah sampel dalam kelompok = 15

MSE = Mean Square Error

Maka nilai  $t_{\text{tabel}} = t_{(0,05/2;30-2)} = t_{(0,025;28)} = 2,048$ . Berdasarkan analisis

MANOVA diperoleh nilai  $MS_e$  untuk variabel *dependent* kecepatan adalah 0,035

Maka besar penolakan LSD untuk kecepatan adalah

$$LSD = t_{\left(\frac{0,05}{2};30-2\right)} \sqrt{\frac{2MSE}{n}}$$

$$\begin{aligned}
&= 2,048 \sqrt{\frac{2 \times 0,035}{15}} \\
&= 2,048 \sqrt{0,0046} \\
&= 0,138
\end{aligned}$$

Karena  $|\mu_{\text{MP-HOPSPRINT}} - \mu_{\text{MP-STEPUP}}| = |\mu_i - \mu_j| = 0,220$  untuk variabel kecepatan (hasil analisis MANOVA)

Maka  $|\mu_i - \mu_j| > \text{LSD}$ , yang artinya  $H_0$  ditolak.

Kesimpulan : *terdapat perbedaan yang signifikan nilai rata-rata kecepatan antar kelompok metode pelatihan hop sprint dengan pelatihan step up*

#### **Metode Least Significant Difference(LSD)**

Perbedaan nilai rata-rata daya ledak otot tungkai pasangan kelompok metode pelatihan *hop sprint* dengan kelompok pelatihan *step up* pada siswa ekstrakurikuler atletik SMAN 1 Kuta Utara

$$LSD = t_{\alpha/2, N-a} \sqrt{\frac{2MS_e}{n}}$$

Dengan,  $\alpha$  = taraf signifikan = 0,05

$N$  = jumlah sampel total = 30

$a$  = jumlah kelompok = 2

$n$  = jumlah sampel dalam kelompok = 15

$MS_e$  = Mean Square Error

Maka nilai  $t_{\text{tabel}} = t_{(0,05/2;30-2)} = t_{(0,025;28)} = 2,048$ . Berdasarkan analisis MANOVA diperoleh nilai  $MS_e$  untuk variabel *dependent* daya ledak otot tungkai tendangan langsung depan adalah 2,219

Maka besar penolakan LSD untuk daya ledak otot tungkai atlet adalah

$$LSD = t_{\left(\frac{0,05}{2}; 30-2\right)} \sqrt{\frac{2MS\hat{\epsilon}}{n}}$$

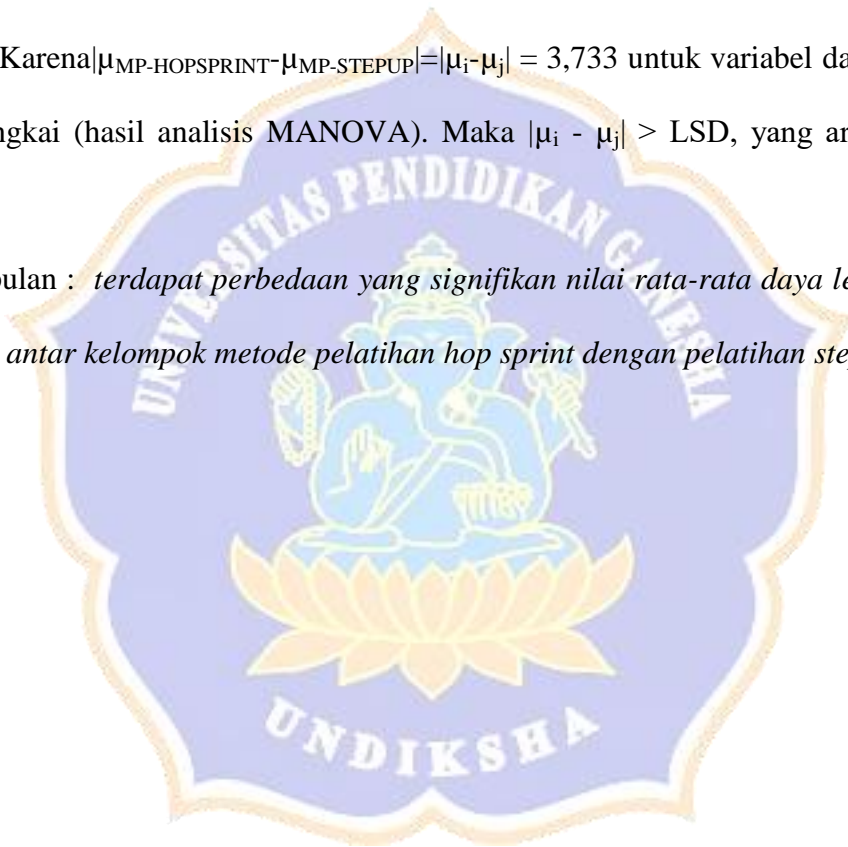
$$= 2,048 \sqrt{\frac{2 \times 2,219}{15}}$$

$$= 2,048 \sqrt{0,296}$$

$$= 1,114$$

Karena  $|\mu_{MP-HOPSPRINT} - \mu_{MP-STEPUP}| = |\mu_i - \mu_j| = 3,733$  untuk variabel daya ledak otot tungkai (hasil analisis MANOVA). Maka  $|\mu_i - \mu_j| > LSD$ , yang artinya  $H_0$  ditolak.

Kesimpulan : *terdapat perbedaan yang signifikan nilai rata-rata daya ledak otot tungkai antar kelompok metode pelatihan hop sprint dengan pelatihan step up*



## Lampiran 15.

## RIWAYAT HIDUP



Maria merupakan putri pertama dari tiga bersaudara pasangan dari Bapak Kamilus Kasi dan Ibu Anastasia Ariningsih. Lahir di Denpasar, 29 Oktober 1990. Menyelesaikan pendidikan di tingkat sekolah dasar di SD 18 Pemecutan Denpasar Bali menyelesaikan sekolah menengah pertama di SMP Negeri 2 Denpasar Bali dan menyelesaikan sekolah menengah atas di SMA Negeri 2 Denpasar Bali, kemudian melanjutkan ke FPOK IKIP PGRI BALI. Kini melanjutkan studi pada Program Pascasarjana Universitas Pendidikan Ganesha (UNDIKSHA) Singaraja dengan mengambil Program Studi Pendidikan Olahraga. Riwayat pekerjaan sebagai seorang Aparatur Sipil Negara pada Dinas Pendidikan Pemuda dan Olahraga Provinsi Bali,serta memiliki Profesi sebagai seorang atlet .