

## Lampiran 1

### PERHITUNGAN RATA-RATA, SIMPANGAN BAKU DAN NORMALITAS DATA HASIL PRE TEST KELAS IV-A

NO	$x_i$	$f_i$	$x_i^2$	$f_i x_i$	$f_i x_i^2$
1	20	4	400	80	1600
2	30	3	900	90	2700
3	35	2	1225	70	2450
4	45	2	2025	90	4050
5	50	2	2500	100	5000
6	55	2	3025	110	6050
7	60	4	3600	110	14400
8	62	3	3884	240	11532
		22	17519	966	47782

#### Rata – Rata

$$Me = \frac{\sum f_i x_i}{\sum f_i}$$

$$Me = \frac{966}{22}$$

$$Me = 43,90909$$

$$Me = 43,91$$

#### Simpangan Baku

$$S = \sqrt{\frac{n \sum f_i x_i^2 - (\sum f_i x_i)^2}{n(n-1)}}$$

$$S = \sqrt{\frac{22(47782) - (966)^2}{22(22-1)}}$$

$$S = \sqrt{\frac{1051204 - 933156}{462}}$$

$$S = \sqrt{\frac{118048}{462}}$$

$$S = \sqrt{255,51515}$$

$$S = 15,98484$$

$$S = 15,98$$

NO	$x_i$	$f_i$	$f_{kum}$	$Z_i$	luas $Z_i$	$F(Z_i)$	$S(Z_i)$	$ F(Z_i) - S(Z_i) $
1	20	4	4	-1,50	0,4319	0,0681	0,18	0,1137
2	30	3	7	-0,87	0,3078	0,1922	0,32	0,1260
3	35	2	9	-0,56	0,2123	0,2877	0,41	0,1214
4	45	2	11	0,07	0,0279	0,5279	0,50	0,0279
5	50	2	13	0,38	0,1480	0,6480	0,59	0,0571
6	55	2	15	0,69	0,2549	0,7549	0,68	0,0731
7	60	4	19	1,01	0,3413	0,8413	0,86	0,0223
8	62	3	22	1,13	0,3708	0,8708	1,00	0,1292
$\Sigma$		22						

Dari data diperoleh  $L_0 = 0,0731$

Interpolasi ( $L_{tabel}$ )

$$L_{(0,05)(20)} = 0,190$$

$$L_{(0,05)(25)} = 0,173$$

$$\begin{array}{ccc} 0,190 & X & 0,173 \\ \hline 20 & 22 & 25 \end{array}$$

$$\frac{X - 0,190}{0,173 - 0,190} = \frac{22 - 20}{25 - 20}$$

$$X - 0,190 = \frac{2}{5}(-0,017)$$

$$X = 0,190 - 0,0068$$

$$X = 0,1832$$

$$L_{(0,05)(22)} = 0,1832$$

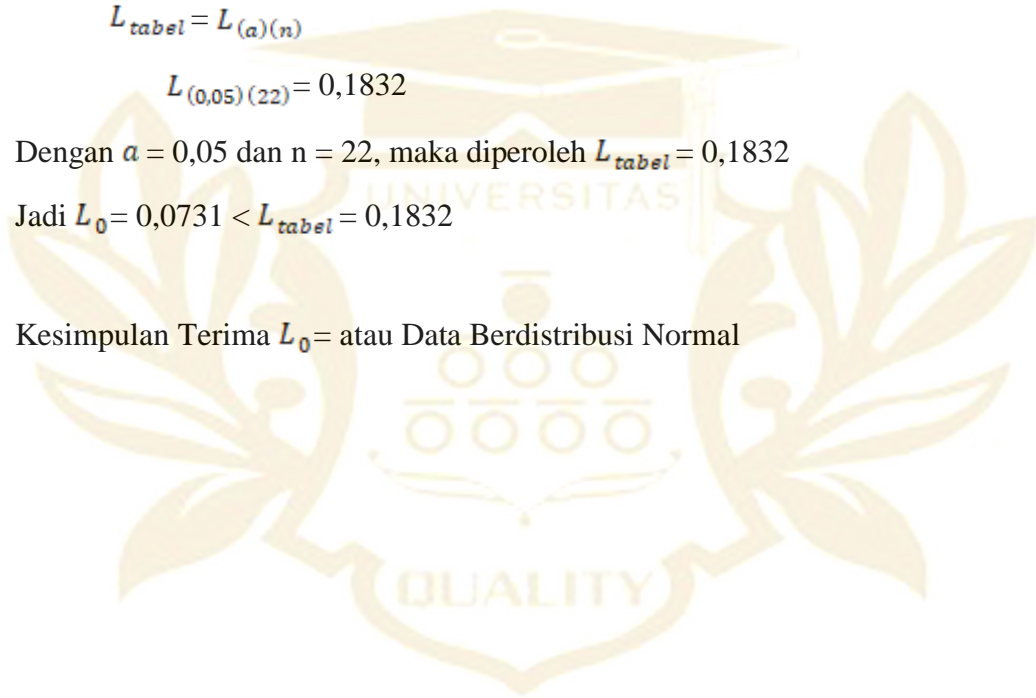
$$L_{tabel} = L_{(\alpha)(n)}$$

$$L_{(0,05)(22)} = 0,1832$$

Dengan  $\alpha = 0,05$  dan  $n = 22$ , maka diperoleh  $L_{tabel} = 0,1832$

Jadi  $L_0 = 0,0731 < L_{tabel} = 0,1832$

Kesimpulan Terima  $L_0 =$  atau Data Berdistribusi Normal



## Lampiran 2

### PERHITUNGAN RATA-RATA, SIMPANGAN BAKU DAN NORMALITAS DATA HASIL PRE TEST KELAS IV-B

NO	$x_i$	$f_i$	$x_i^2$	$f_i x_i$	$f_i x_i^2$
1	21	4	441	84	1764
2	30	2	900	60	1800
3	35	2	1225	70	2450
4	40	3	1600	120	4800
5	50	2	2500	100	5000
6	55	2	3025	110	6050
7	55	1	3600	60	3600
8	60	2	3884	124	7688
9	62	2	4225	130	8450
		20	21360	858	41602

#### Rata – Rata

$$Me = \frac{\sum f_i x_i}{\sum f_i}$$

$$Me = \frac{858}{20}$$

$$Me = 42,9$$

#### Simpangan Baku

$$S = \sqrt{\frac{n \sum f_i x_i^2 - (\sum f_i x_i)^2}{n(n-1)}}$$

$$S = \sqrt{\frac{20(41602) - (858)^2}{20(20-1)}}$$

$$S = \sqrt{\frac{832040 - (736164)}{380}}$$

$$S = \sqrt{\frac{95876}{380}}$$

$$S = \sqrt{252,30526}$$

$$S = 15,88412$$

$$S = 15,88$$

NO	$x_i$	$f_i$	$f_{kum}$	$Z_i$	luas $Z_i$	$F(Z_i)$	$S(Z_i)$	$ F(Z_i) - S(Z_i) $
1	21	4	4	-1,38	0,4162	0,0838	0,20	0,1162
2	30	2	6	-0,81	0,2910	0,209	0,30	0,091
3	35	2	8	-0,50	0,1915	0,3085	0,40	0,0915
4	40	3	11	-0,18	0,0714	0,4286	0,55	0,1214
5	50	2	13	0,45	0,1736	0,67	0,65	0,0236
6	55	2	15	0,76	0,2764	0,7764	0,75	0,0264
7	60	1	16	1,08	0,3599	0,8599	0,80	0,0599
8	62	2	18	1,20	0,3849	0,8849	0,90	0,0151
9	65	2	20	1,39	0,4177	0,9177	1,00	0,0823
$\Sigma$		20						

$$L_0 = 0,0599$$

$$L_{tabel} = L_{(\alpha)(n)}$$

$$= L_{(0,05)(20)}$$

$$L_{tabel} = 0,190$$

$$L_0 = 0,0599 < L_{tabel} = 0,190$$

Kesimpulan Terima  $L_0$  = atau Data Berdistribusi Normal

### Lampiran 3

#### Uji Homogenitas Varians Nilai Pre Test Kelas IV-A dan IV-B

$$n_1 = 22$$

$$n_2 = 22$$

$$s_1^2 = 47,3344$$

$$s_2^2 = 47,3344$$

$$F = \frac{\text{varians terbesar}}{\text{varians terkecil}}$$

$$F = \frac{47,3344}{47,3344}$$

$$F = 1$$

$$df_1 = n_1 - 1 = 22 - 1 = 21$$

$$df_2 = n_2 - 1 = 22 - 1 = 21$$

Karena tidak terdapat pada nilai distribusi  $F_{0,05(21,21)}$  dalam tabel, maka di cari dengan cara interpolasi sebagai berikut:

Interpolasi

$$F_{0,05(20,21)} = 2,15$$

$$F_{0,05(24,21)} = 2,05$$

$$\frac{2,15}{20} \quad X \quad \frac{2,05}{24}$$

$$20 \quad 21 \quad 24$$

$$\frac{X - 2,15}{2,05 - 2,15} = \frac{21 - 20}{24 - 21}$$

$$X - 2,15 = \frac{1}{3} (-0,1)$$

$$X = 2,15 - 0,0333$$

$$X = 2,1167$$

$$\text{Maka } F_{0,05(21,21)} = 2,1167$$

$$F = 1 < F_{(0,05)(21,19)} = 2,1167$$

Maka  $H_0$  Diterima atau Data Homogen



#### Lampiran 4

#### Uji Kesamaan Dua Rata-Rata Pre Test Kelas A dan B

$$H_0 = \mu_1 = \mu_2$$

$$H_1 = \mu_1 \neq \mu_2$$

Karena  $r_1 = r_2$ , maka rumus yang digunakan adalah

$$s = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

$$n_1 = 22$$

$$n_2 = 20$$

$$\bar{X}_1 = 43,91$$

$$\bar{X}_2 = 42,90$$

$$s_1^2 = 255,3604$$

$$s_2^2 = 252,1744$$

$$S^2 = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

$$S^2 = \sqrt{\frac{(22 - 1)255,3604 + (20 - 1)252,1744}{22 + 20 - 2}}$$

$$S^2 = \sqrt{\frac{(21)255,3604 + (19)252,1744}{40}}$$

$$S^2 = \sqrt{\frac{5362,5684 + 4791,3136}{40}}$$



$$S^2 = \sqrt{\frac{10153,882}{40}}$$

$$S^2 = \sqrt{253,84705}$$

$$S^2 = 15,93257826$$

$$S^2 = 15,93$$

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$t = \frac{43,91 - 42,90}{15,93 \sqrt{\frac{1}{22} + \frac{1}{20}}}$$

$$t = \frac{1,01}{15,93 \sqrt{\frac{1}{22} + \frac{1}{20}}}$$

$$t = \frac{1,01}{15,93 \sqrt{0,0454545455 + 0,05}}$$

$$t = \frac{1,01}{15,93 \sqrt{0,0954545455}}$$

$$t = \frac{1,01}{4,9216880431}$$

$$t = 0,2052141442$$

$$t = 0,205$$

$$t_{tabel} = t_{\left(\frac{1-\alpha}{2}\right)(n_1+n_2-2)}$$

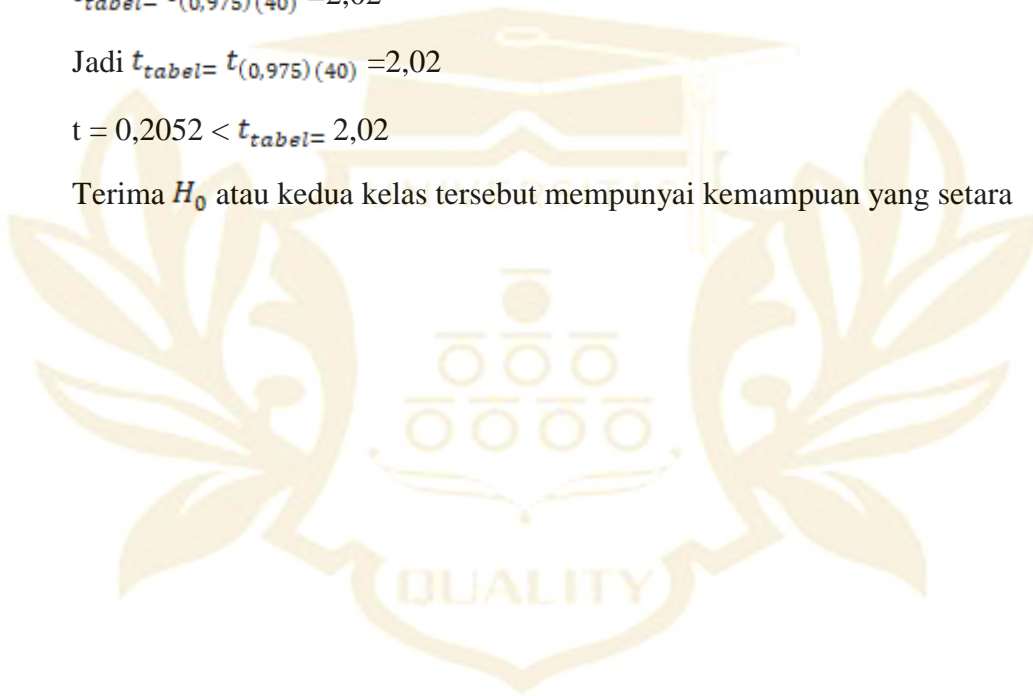
$$t_{tabel} = t_{\left(1-\frac{1}{2}0,05\right)(22+20-2)}$$

$$t_{tabel} = t_{(0,975)(40)} = 2,02$$

Jadi  $t_{tabel} = t_{(0,975)(40)} = 2,02$

$$t = 0,2052 < t_{tabel} = 2,02$$

Terima  $H_0$  atau kedua kelas tersebut mempunyai kemampuan yang setara



### Lampiran 5

#### PERHITUNGAN RATA-RATA, SIMPANGAN BAKU DAN NORMALITAS DATA HASIL POST TEST KELAS IV-A

NO	$x_i$	$f_i$	$x_i^2$	$f_i x_i$	$f_i x_i^2$
1	50	1	2500	50	2500
2	55	3	3025	165	9075
3	60	4	3600	240	14400
4	65	5	4225	325	21125
5	70	7	4900	490	34300
6	75	2	5625	150	11250
$\Sigma$		<b>22</b>	<b>23875</b>	<b>1420</b>	<b>92650</b>

#### Rata – Rata

$$Me = \frac{\sum f_i x_i}{\sum f_i}$$

$$Me = \frac{1420}{22}$$

$$Me = 64,54$$

#### Simpangan Baku

$$S = \sqrt{\frac{n \sum f_i x_i^2 - (\sum f_i x_i)^2}{n(n-1)}}$$

$$s = \sqrt{\frac{22(92650) - (1420)^2}{22(22-1)}}$$

$$s = \sqrt{\frac{2038300 - 2016400}{462}}$$

$$s = \sqrt{\frac{21900}{462}}$$

$$s = \sqrt{47,4025974}$$

$$S = 6,88$$

NO	$x_i$	$f_i$	$f_{kum}$	$Z_i$	$F(Z_i)$	$S(Z_i)$	$ F(Z_i) - S(Z_i) $
1	50	1	1	-2,11	0,0174	0,0455	0,0281
2	55	4	5	-1,39	0,0823	0,2273	0,1450
3	60	4	9	-0,66	0,2546	0,4091	<b>0,1545</b>
4	65	2	11	0,07	0,5279	0,5000	0,0279
5	70	7	18	0,79	0,7852	0,8182	0,0330
6	75	4	22	1,52	0,9357	1,0000	0,0643
$\Sigma$		22					

$$L_0 = 0,1545$$

Interpolasi ( $L_{tabel}$ )

$$L_{(0,05)(20)} = 0,190$$

$$L_{(0,05)(25)} = 0,173$$

$$\begin{array}{ccc} 0,190 & X & 0,173 \\ \hline 20 & 22 & 25 \end{array}$$

$$\frac{X - 0,190}{0,173 - 0,190} = \frac{22 - 20}{25 - 20}$$

$$X - 0,190 = \frac{2}{5} (-0,017)$$

$$X = 0,190 - 0,0068$$

$$X = 0,1832$$

$$L_{(0,05)(22)} = 0,1832$$

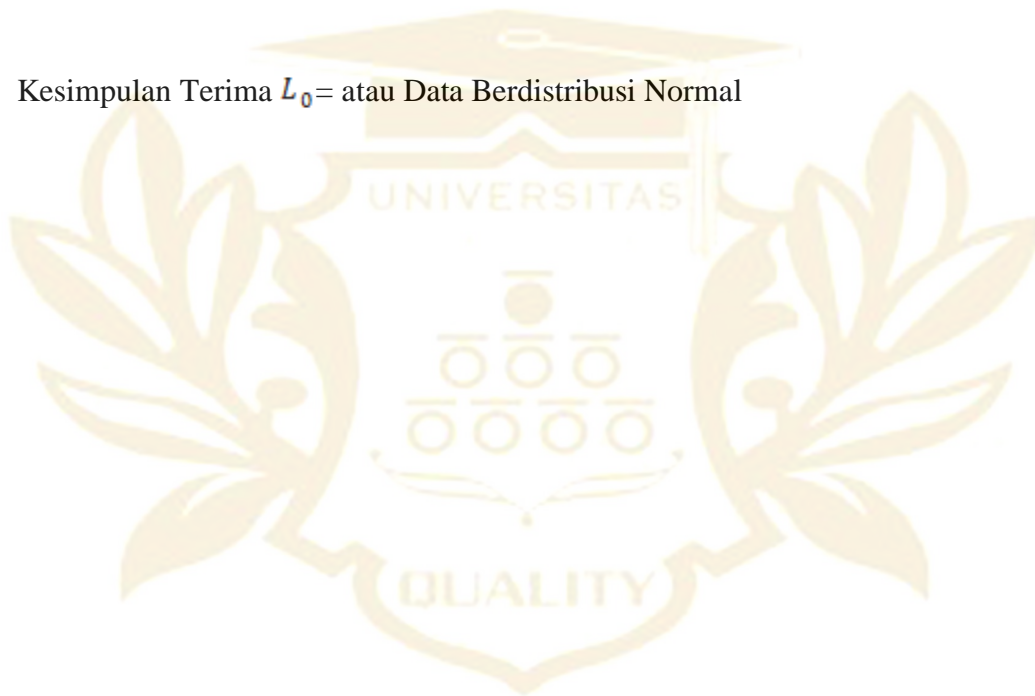
$$L_{tabel} = L_{(\alpha)(n)}$$

$$L_{(0,05)(22)} = 0,1832$$

Dengan  $\alpha = 0,05$  dan  $n = 22$ , maka diperoleh  $L_{tabel} = 0,1832$

Jadi  $L_0 = 0,1545 < L_{tabel} = 0,1832$

Kesimpulan Terima  $L_0$  = atau Data Berdistribusi Normal



## Lampiran 6

### PERHITUNGAN RATA-RATA, SIMPANGAN BAKU DAN NORMALITAS DATA HASIL POST TEST KELAS IV-B

NO	$x_i$	$f_i$	$x_i^2$	$f_i x_i$	$f_i x_i^2$
1	55	1	3025	55	3025
2	60	3	3600	180	10800
3	65	4	4225	260	16900
4	70	5	4900	350	24500
5	75	7	5625	525	39375
6	80	2	6400	160	12800
$\Sigma$		<b>22</b>	<b>27775</b>	<b>1530</b>	<b>107400</b>

#### Rata – Rata

$$Me = \frac{\sum f_i x_i}{\sum f_i}$$

$$Me = \frac{1530}{22}$$

$$Me = 69,54$$

#### Simpangan Baku

$$S = \sqrt{\frac{n \sum f_i x_i^2 - (\sum f_i x_i)^2}{n(n-1)}}$$

$$s = \sqrt{\frac{22(107400) - (1530)^2}{22(22-1)}}$$

$$s = \sqrt{\frac{2362800 - 2340900}{462}}$$

$$s = \sqrt{\frac{21900}{462}}$$

$$s = \sqrt{47,4025974}$$

$$S = 6,88$$

NO	$x_i$	$f_i$	$f_{kum}$	$Z_i$	$F(Z_i)$	$S(Z_i)$	$ F(Z_i) - S(Z_i) $
1	55	1	1	-2,11	0,0174	0,0455	0,0281
2	60	3	4	-1,39	0,0823	0,1818	0,0995
3	65	4	8	-0,66	0,2455	0,3636	0,1181
4	70	5	13	0,07	0,5279	0,5909	0,0630
5	75	7	20	0,79	0,7852	0,9091	<b>0,1239</b>
6	80	2	22	1,52	0,9357	1,0000	0,0643
$\Sigma$		22					

$$L_0 = 0,1239$$

Interpolasi ( $L_{tabel}$ )

$$L_{(0,05)(20)} = 0,190$$

$$L_{(0,05)(25)} = 0,173$$

$$\begin{array}{ccc} 0,190 & X & 0,173 \\ \hline 20 & 22 & 25 \end{array}$$

$$\frac{X - 0,190}{0,173 - 0,190} = \frac{22 - 20}{25 - 20}$$

$$X - 0,190 = \frac{2}{5} (-0,017)$$

$$X = 0,190 - 0,0068$$

$$X = 0,1832$$

$$L_{(0,05)(22)} = 0,1832$$

$$L_{tabel} = L_{(\alpha)(n)}$$

$$L_{(0,05)(22)} = 0,1832$$

Dengan  $\alpha = 0,05$  dan  $n = 22$ , maka diperoleh  $L_{tabel} = 0,1832$

Jadi  $L_0 = 0,1239 < L_{tabel} = 0,1832$

Kesimpulan Terima  $L_0 =$  atau Data Berdistribusi Normal





### Hasil Perhitungan Uji Independen Antara Dua Faktor

KELAS	R <50-00	S 67-70	T 71-80	JUMLAH
EKSPERIMEN	4	9	9	22
KONVENSIONAL	8	12	2	22
JUMLAH	12	21	11	44

KELAS	R <50-00	S 67-70	T 71-80	JUMLAH
Eksprimen	4	9	9	22
Konvensional	8	12	2	22
Jumlah	12	21	11	44

$$\text{rumus : } x^2 = \sum_{i=1}^B \sum_{j=1}^K \left( \frac{O_{ij} - E_{ij}}{E_{ij}} \right)^2$$

$$x^2 = \frac{(4-6)^2}{6} + \frac{(9-10,5)^2}{10,5} + \frac{(9-5,5)^2}{5,5} + \frac{(8-6)^2}{6} + \frac{(12-10,5)^2}{10,5} + \frac{(2-5,5)^2}{5,5}$$

$$x^2 = 0,67 + 0,21 + 2,23 + 0,67 + 0,21 + 2,23$$

$$x^2 = 6,22$$

$$\chi^2 = \chi^2_{(1-\infty)(B-1)(K-1)} = \chi^2_{(1-0,05)(2-1)(3-1)} = \chi^2_{(0,95)(2)} = 5,99$$

$$x^2 = 6,22 > \chi^2_{(0,95)(2)} = 5,99$$

Maka  $H_0$  ditolak dan  $H_1$  diterima

Sehingga dapat dinyatakan adanya pengaruh yang signifikan terhadap kemampuan menyusun paragraf dengan menggunakan strategi atau teknik *kalimat yang di acak* pada mata pelajaran Bahasa Indonesia di kelas IV SD N 060889 Kecamatan Medan Baru T.A 2018/2019.

Lampiran 11

## Dokumentasi Penelitian





