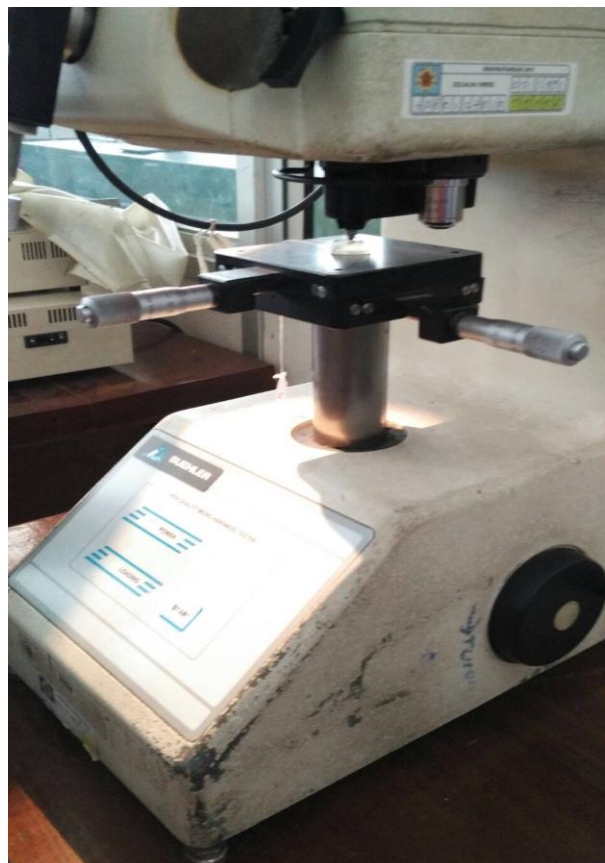


## **Lampiran**

**Perendaman sampel pada variabel pengaruh, yaitu susu, teh, dan soda**



***Micro Hardness Testing Machine* untuk menguji kekerasan pada permukaan email**



## Manipulasi Resin dan Katalis



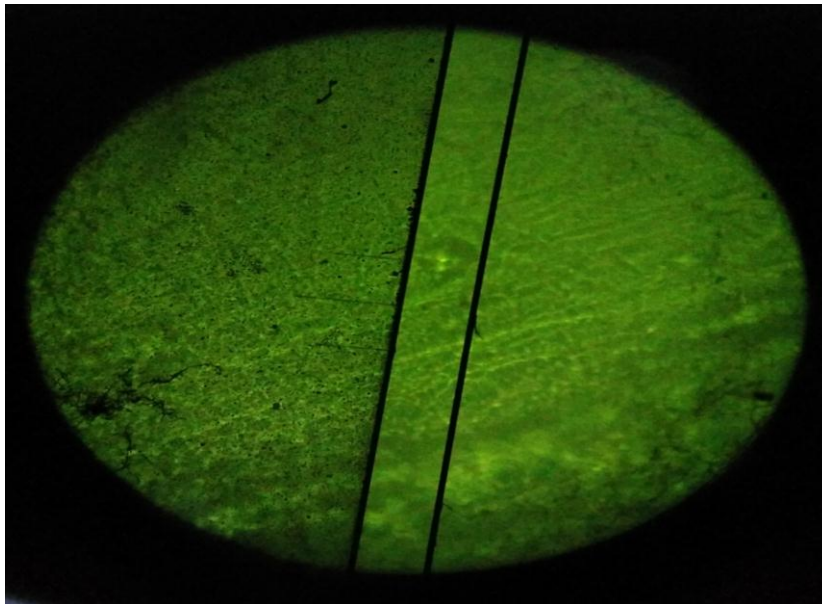
## Penanaman sampel pada cetakan es batu yang didasari malam



**Lampu indikator lama beban diaplikasikan**



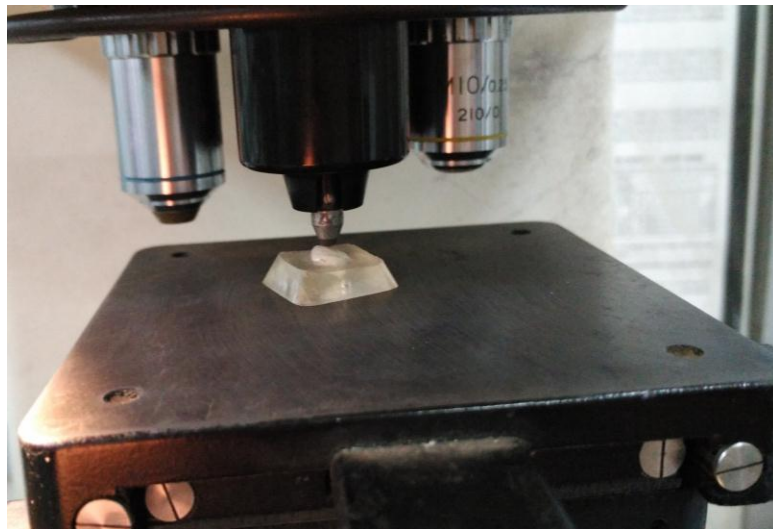
**Area yang terlihat dari mikroskop setelah sampel diberikan beban seperti bentuk piramida**



**Dengan menggunakan mikroskop mencari titik fokus untuk beban yang akan diberikan**



**Indenter yang akan memberikan beban pada sampel yang akan diuji**



## Data Hasil Pengukuran

No. sample	Variabel	Perlaku	Sebelum perendaman					Setelah perendaman					Keterangan		
			d <sub>1</sub>	d <sub>2</sub>	d	d <sup>2</sup>	VHN	d <sub>1</sub>	d <sub>2</sub>	d <sub>1</sub>	d <sub>2</sub>	d		d <sup>2</sup>	VHN
20	aquades	1	27	31.75	29.375	862.89	0.2149	26.5	25	26.5	25	25.750	663.0625	0.2796	bertambah keras
18	aquades	1	23	28	25.500	650.25	0.2851	25	25.5	25	25.5	25.250	637.5625	0.2908	bertambah keras
24	aquades	1	24.5	26	25.250	637.56	0.2908	23.5	26.5	23.5	26.5	25.000	625.0000	0.2966	bertambah keras
21	aquades	1	25	25	25.000	625.00	0.2966	26.5	24.25	26.5	24.25	25.375	643.8906	0.2879	melunak
23	aquades	1	26.5	23	24.750	612.56	0.3027	25.75	29	25.75	29	27.375	749.3906	0.2474	melunak
25	aquades	1	23.5	23.5	23.500	552.25	0.3357	22.25	22.75	22.25	22.75	22.500	506.2500	0.3662	bertambah keras
1	susu cair	2	29.4	29.5	29.450	867.30	0.2138	20.5	22.5	24	24	22.750	517.5625	0.3582	bertambah keras
27	susu cair	2	27.5	29.25	28.375	805.14	0.2303	24.5	27.5	18.5	20.75	22.813	520.4102	0.3563	bertambah keras
16	susu cair	2	26.9	27.4	27.150	737.12	0.2515	18	20.5	18.75	19.75	19.250	370.5625	0.5003	bertambah keras
53	susu cair	2	26.25	27.6	26.925	724.96	0.2557	19.5	20.75	20.5	20.5	20.313	412.5977	0.4493	bertambah keras
8	susu cair	2	25	25.5	25.250	637.56	0.2908	16.5	16	21	23	19.125	365.7656	0.5069	bertambah keras
40	susu cair	2	24.25	19.25	21.750	473.06	0.3919	19.5	18.5	18	13.5	17.375	301.8906	0.6141	bertambah keras
63	teh	3	30.25	28	29.125	848.27	0.2186	22.5	29.5	24.75	32.5	27.313	745.9727	0.2485	bertambah keras
56	teh	3	28	27.6	27.800	772.84	0.2399	18.5	21	21	23.25	20.938	438.3789	0.4229	bertambah keras
26	teh	3	28.25	24.5	26.375	695.64	0.2665	22	21.75	26.75	26.5	24.250	588.0625	0.3153	bertambah keras
31	teh	3	26	25.4	25.700	660.49	0.2807	20.25	21.75	21	24	21.750	473.0625	0.3919	bertambah keras
45	teh	3	24	25	24.500	600.25	0.3089	18.75	19	19.5	19	19.063	363.3789	0.5102	bertambah keras
62	teh	3	24	23.5	23.750	564.06	0.3287	21.25	20	20.5	19	20.188	407.5352	0.4549	bertambah keras
17	soda	4	28.25	28.5	28.375	805.14	0.2303	29	28	30.5	30.25	29.438	866.5664	0.2139	melunak
70	soda	4	25	28.75	26.875	722.27	0.2567	23	33	29.5	27.5	28.250	798.0625	0.2323	melunak
78	soda	4	27	25	26.000	676.00	0.2743	38.5	31	30.5	25	31.250	976.5625	0.1898	melunak
35	soda	4	27.5	23	25.250	637.56	0.2908	29	24	30.5	27.25	27.688	766.5977	0.2418	melunak
66	soda	4	25	23.5	24.250	588.06	0.3153	35.25	38	28.5	34.5	34.063	1160.2539	0.1598	melunak
24	soda	4	23.5	26.5	25.000	625.00	0.2966	33.5	29	25.5	31	29.750	885.0625	0.2095	melunak

## Paired t test aquades

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum	.2883	6	.04262	.01740
	sesudah	.2967	6	.03983	.01626

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	sebelum & sesudah	6	.526	.284

**Paired Samples Test**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	sebelum - sesudah	-.00833	.04021	.01641	-.05053	.03386	-.508	5	.633

## paired t test susu

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum	.2717	6	.06401	.02613
	sesudah	.4650	6	.09649	.03939

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	sebelum & sesudah	6	.915	.011

**Paired Samples Test**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	sebelum - sesudah	-.19333	.04590	.01874	-.24150	-.14517	-10.318	5	.000

### Paired t test teh

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum	.2750	6	.04135	.01688
	sesudah	.3917	6	.09579	.03911

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	sebelum & sesudah	6	.750	.086

**Paired Samples Test**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	sebelum - sesudah	-.11667	.07033	.02871	-.19048	-.04286	-4.063	5	.010

### Paired t test soda

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	sebelum	.2783	6	.03189	.01302
	sesudah	.2067	6	.02875	.01174

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	sebelum & sesudah	6	-.422	.405

**Paired Samples Test**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	sebelum - sesudah	.07167	.05115	.02088	.01798	.12535	3.432	5	.019



## Uji Normalitas Data

### Case Processing Summary

kelompok		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
selisih	Aquades	6	100.0%	0	.0%	6	100.0%
	Susu	6	100.0%	0	.0%	6	100.0%
	Teh	6	100.0%	0	.0%	6	100.0%
	Soda	6	100.0%	0	.0%	6	100.0%

### Tests of Normality

kelompok		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
selisih	Aquades	.200	6	.200*	.960	6	.823
	Susu	.223	6	.200*	.911	6	.441
	Teh	.170	6	.200*	.941	6	.669
	Soda	.186	6	.200*	.901	6	.380

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

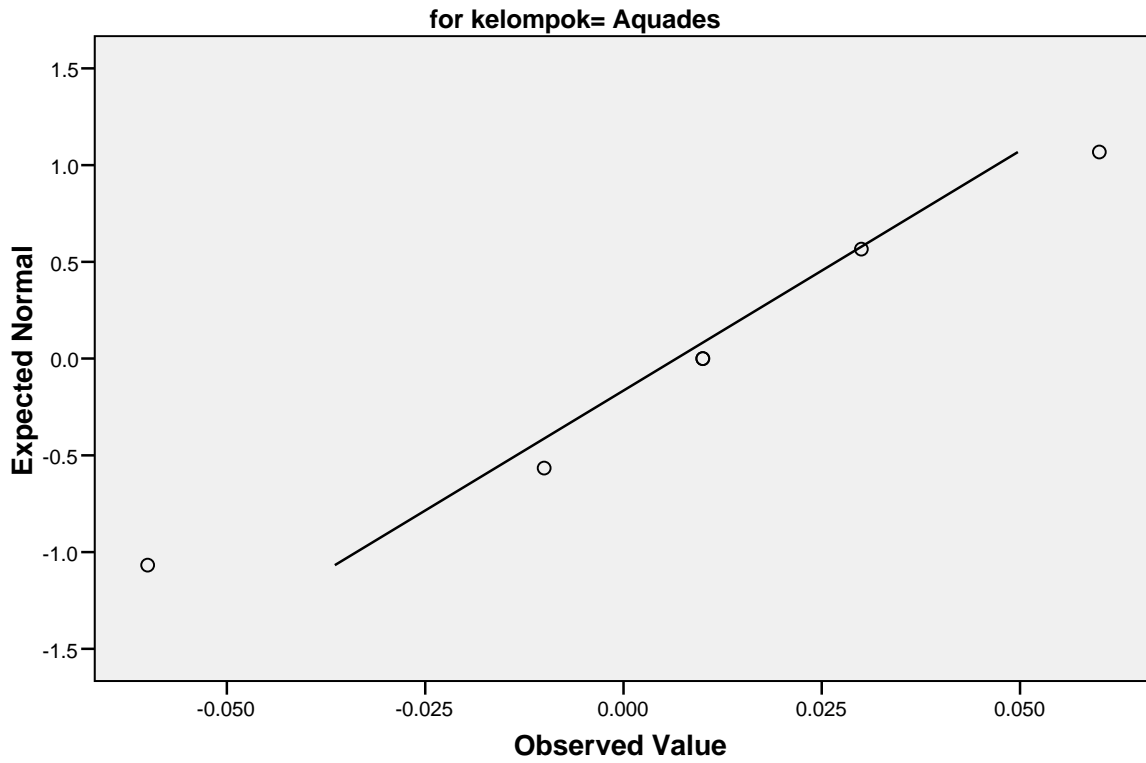
a. Lilliefors Significance Correction

**Descriptives**

kelompok				Statistic	Std. Error		
selisih	Aquades	Mean		.0067	.01647		
		95% Confidence Interval for Mean	Lower Bound	-.0357			
			Upper Bound	.0490			
		5% Trimmed Mean		.0074			
		Median		.0100			
		Variance		.002			
		Std. Deviation		.04033			
		Minimum		-.06			
		Maximum		.06			
		Range		.12			
		Interquartile Range		.06			
		Skewness		-.624	.845		
		Kurtosis		1.215	1.741		
		Susu	Susu	Mean		.1917	.01956
				95% Confidence Interval for Mean	Lower Bound	.1414	
	Upper Bound			.2420			
5% Trimmed Mean				.1919			
Median				.2050			
Variance				.002			
Std. Deviation				.04792			
Minimum				.13			
Maximum				.25			
Range				.12			
Interquartile Range				.09			
Skewness				-.350	.845		
Kurtosis				-1.678	1.741		
Teh	Teh			Mean		.1167	.02777
				95% Confidence Interval for Mean	Lower Bound	.0453	
			Upper Bound	.1880			
		5% Trimmed Mean		.1169			
		Median		.1200			
		Variance		.005			
		Std. Deviation		.06802			
		Minimum		.03			
		Maximum		.20			
		Range		.17			
		Interquartile Range		.14			
		Skewness		-.107	.845		
		Kurtosis		-1.655	1.741		
		Soda	Soda	Mean		-.0700	.02160
				95% Confidence Interval for Mean	Lower Bound	-.1255	
	Upper Bound			-.0145			
5% Trimmed Mean				-.0678			
Median				-.0650			
Variance				.003			
Std. Deviation				.05292			
Minimum				-.16			
Maximum				-.02			
Range				.14			
Interquartile Range				.09			
Skewness				-.972	.845		
Kurtosis				.754	1.741		

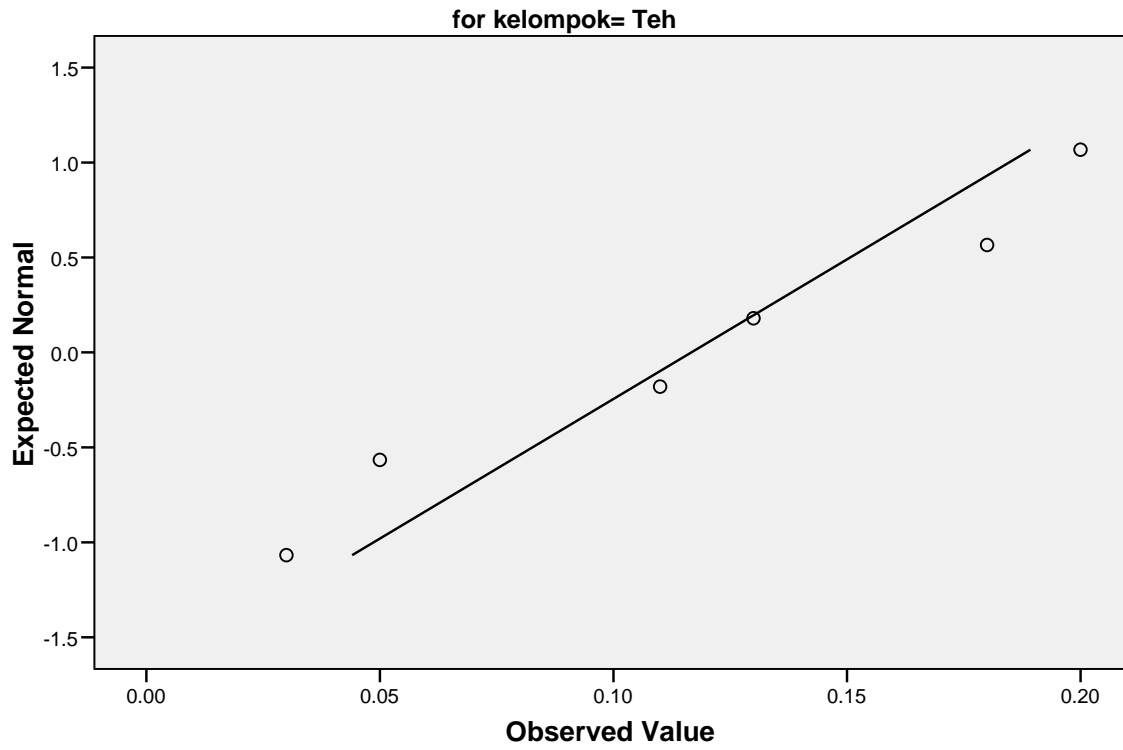
**Tabel Normalitas  
Aquadres**

**Normal Q-Q Plot of selisih**



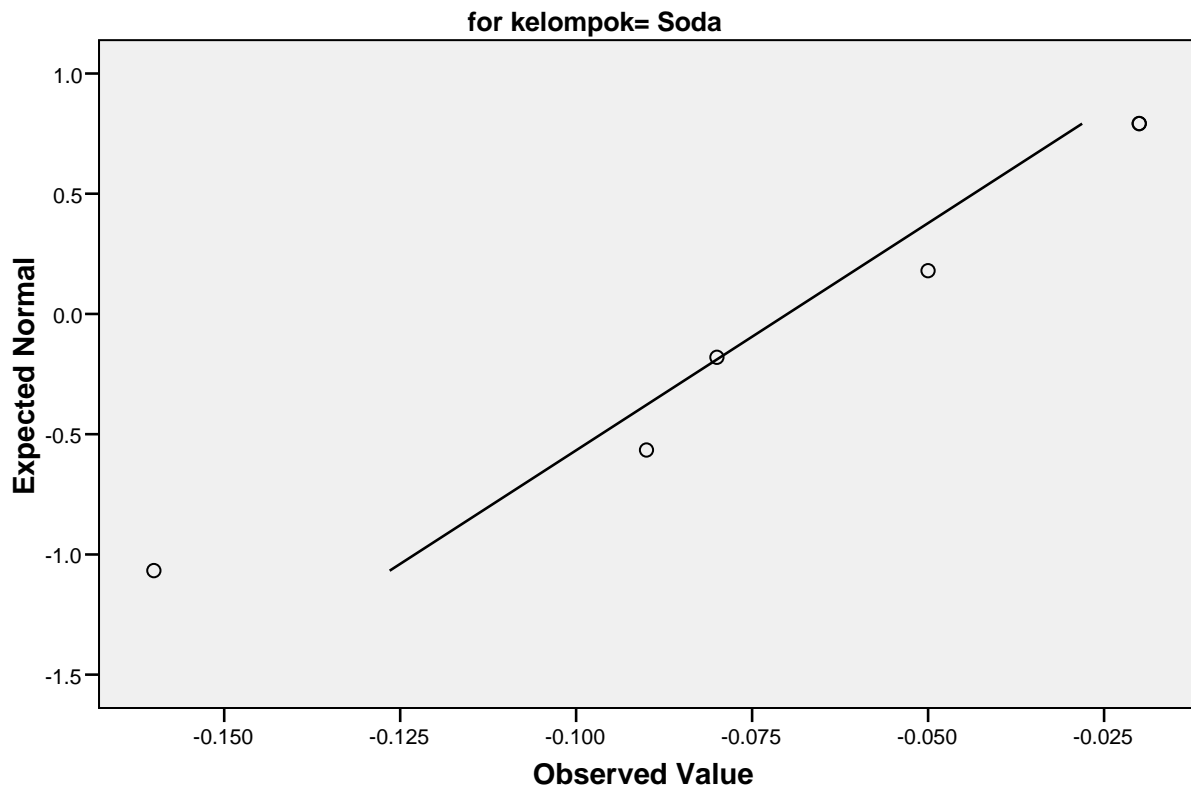
## Tabel Normalitas Teh

### Normal Q-Q Plot of selisih



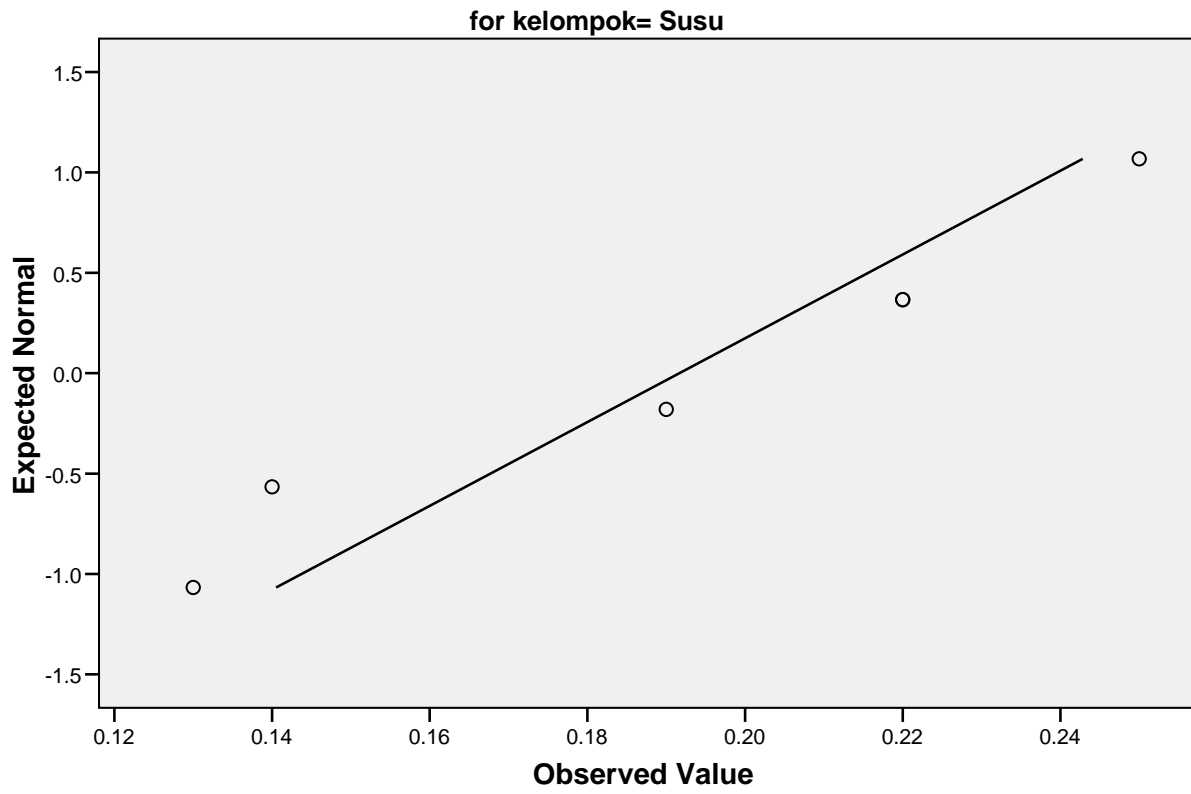
**Tabel Normalitas  
Soda**

**Normal Q-Q Plot of selisih**



**Tabel Normalitas  
Susu**

**Normal Q-Q Plot of selisih**



## Uji *One-Way* Anova

### Test of Homogeneity of Variances

selisih

Levene Statistic	df 1	df 2	Sig.
.793	3	20	.512

### ANOVA

selisih

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.242	3	.081	28.395	.000
Within Groups	.057	20	.003		
Total	.298	23			

## Uji LSD (*Least Significant Differences*)

### Multiple Comparisons

Dependent Variable: selisih

LSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Aquades	Susu	-.18500*	.03075	.000	-.2492	-.1208
	Teh	-.11000*	.03075	.002	-.1742	-.0458
	Soda	.07667*	.03075	.022	.0125	.1408
Susu	Aquades	.18500*	.03075	.000	.1208	.2492
	Teh	.07500*	.03075	.024	.0108	.1392
	Soda	.26167*	.03075	.000	.1975	.3258
Teh	Aquades	.11000*	.03075	.002	.0458	.1742
	Susu	-.07500*	.03075	.024	-.1392	-.0108
	Soda	.18667*	.03075	.000	.1225	.2508
Soda	Aquades	-.07667*	.03075	.022	-.1408	-.0125
	Susu	-.26167*	.03075	.000	-.3258	-.1975
	Teh	-.18667*	.03075	.000	-.2508	-.1225

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