### LAMPIRAN

# Lampiran 1 Data Pengamatan Nilai Ketidakrataan Sliver Drawing Finisher

Tost no	Ketidakrataan (U%)					
Test no.	Non UV	UV				
1	2,22	1,51				
2	2,29	1,43				
3	2,19	1,52				
4	2,22	1,54				
5	2,26	1,46				

# Lampiran 2 Perhitungan Data Pengamatan

No	Ketidakrat	aan (U%)	$(x_i - \bar{x})^2$	$(x_i - \bar{x})^2$
NO.	Non UV	UV	Non UV	UV
1	2,22	1,51	0,000256	0,000324
2	2,29	1,43	0,002916	0,003969
3	2,19	1,52	0,002116	0,000784
4	2,22	1,54	0,000256	0,002304
5	2,26	1,46	0,000576	0,001024
Σ	11,18	7,46	0,00612	0,008405
Ā	2,23	1,49		
SD	0,03	0,04		
CV%	1,74	3,01		
E	1,52	2,63		

Non UV :

UV :

$SD = \sqrt{\frac{\sum_{i=1}^{n} (x-\bar{x})^2}{n-1}}$	$CV = \frac{SD}{\bar{x}} \times 100\%$	$E = \frac{1,96 \times CV}{\sqrt{n}}$
$SD = \sqrt{\frac{0,00612}{5-1}}$	$CV = \frac{0,039}{2,236} \times 100\%$	$E = \frac{3,41}{\sqrt{5}}$
SD (Standar Deviasi ) = <b>0,039</b>	CV%(Koefisien Variasi) = <b>1,74</b>	Error = <b>1,52</b>
SD = $\sqrt{\frac{\sum_{i=1}^{n} (x - \bar{x})^2}{n-1}}$	$CV = \frac{SD}{\bar{x}} \times 100\%$	$E = \frac{1,96 \text{ x CV}}{\sqrt{n}}$
$SD = \sqrt{\frac{0,008405}{5-1}}$	$CV = \frac{0.045}{1.492} \times 100\%$	$E = \frac{5,89}{\sqrt{5}}$

 SD (Standar
 CV%(Koefisien
 Error = 2,63

 Deviasi ) = 0,045
 Variasi) = 3,01
 Variasi)

#### Lampiran 3 Uji Statistik

#### 1. Uji Normalitas

Berikut merupakan langkah-langkah Uji Normalitas Shapiro-Wilk yang dilakukan meng*gun*akan SPSS :

1) Buka lembar kerja SPSS, lalu klik *Variable View*. Pada bagian ini diisi dengan *treatment* dan ketidakrataan.

Î	<u>F</u> ile	<u>E</u> dit	<u>V</u> iew <u>D</u> a	ata	<u>T</u> ransform	<u>A</u> nalyze	<u>G</u> raphs <u>U</u> t	ilities E <u>x</u> tensions	<u>W</u> indow	<u>H</u> elp					
			Name		Туре	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role	
	1		Treatment		Numeric	10	2		None	None	10	를 Right	🖋 Scale	🔪 Input	4
ľ	2		Ketidakrata	aan	Numeric	10	2		None	None	12	■ Right	🖋 Scale	🖌 Input	

Gambar 1 input data pada Variable View

2) Kemudian klik *Data View* lalu masukan data *treatment* dan ketidakrataan pada tabel variable.

<u>F</u> ile	<u>E</u> dit	View	Data 3	<u>T</u> ransform	<u>A</u> nalyze
6				5	<b>&gt;</b>
9:					
		🛷 Tre	atment	🛷 Ketida	krataan
	1		1,00		2,22
	2		1,00		2,29
	3		1,00		2,19
	4		1,00		2,22
	5		1,00		2,26
	6		2,00		1,51
	7		2,00		1,43
	8		2,00		1,52
	9		2,00		1,54
1	10		2,00		1,46
		1			

Gambar 2 input data ketidakrataan pada Data View

3) Pada toolbars SPSS, klik Analyze > Descriptive Statistics > Explore.

<u>F</u> ile <u>E</u> dit	<u>V</u> iew <u>D</u> ata	<u>T</u> ransform	Reports	•	<u>W</u> indow <u>H</u> elp
			Descriptive Statistics Bayesian Statistics	*	Erequencies       Descriptives
10.	🔗 Treatment	🛷 Ketidak	l a <u>p</u> les Co <u>m</u> pare Means	Р 	A Explore
1	1,00 1,00		<u>G</u> eneral Linear Model Generalized Linear Models	+ +	TURF Analysis
3	1,00		Mixed Models	*	Image: Representation of the second seco
5	1,00		<u>C</u> orrelate <u>R</u> egression	P 	2-Q Plots
6 7	2,00 2,00		L <u>og</u> linear Neural Networks	*	
8	2,00 2,00		Classify	•	
10	2,00		Dimension Reduction		

#### Gambar 3 Analyze > Descriptive Statistics > Explore

4) Pada kotak dialog *Explore*, variable ketidakrataan dimasukan pada kotak *Dependent List* dan variabel *treatment* pada kotak *Factor List*. Pada bagian *Display* pilih *Both*.

ta Explore	×
Dependent List:	Statistics Plots Options Bootstrap
Display Both O Statistics O Plots     OK Paste Reset Cancel Help	

Gambar 4 Kotak dialog Explore

5) Pada kotak dialog *Explore* klik *Plots,* dari beberapa pilihan beri tanda centang pada bagian *Normality plots with test,* lalu klik *Continue.* 

Explore 🕼	Explore: Plots	×
Display e Both C	Boxplots © Eactor levels together © Dependents together © None Normality plots with tests Spreadvs Level with Levene Test © Nong © Power estimation © Transformed Power, Natural log © Untransformed Continue Cancel Help	Statistics Plots Options Bootstrap

Gambar 5 Kotak dialog Plots

6) Klik *Ok*, maka akan muncul output SPSS. Uji normalitas Shapiro-Wilk cukup tabel *output Test of Normality* Shapiro-Wilk saja yang diperhatikan.

		Τe	ests of No	rmality				
		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk			
	Treatment	Statistic	df	Sig.	Statistic	df	Sig.	
Ketidakrataan	1,00	,259	5	,200 <sup>*</sup>	,947	5	,714	

			*			
2,00	.254	5	.200	,927	5	.573
			· · ·			·

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

a. Lilliefors Significance Correction

Gambar 6 Hasil Uji Normalitas Shapiro-Wilk

#### 2. Uji Homogenitas

Berikut merupakan langkah-langkah Uji Homogenitas dengan SPSS :

1) Klik Analyze > Descriptive Statistics > Explore.

<u>F</u> ile <u>E</u> dit	<u>V</u> iew <u>D</u> ata <u>T</u> ra	ansform	Re <u>p</u> orts	*	<u>W</u> indow <u>H</u> elp	
e 🗀			Descriptive Statistics	•	123 <u>F</u> requencies	
		<u> </u>	Bayesian Statistics	•	Descriptives	
6 :			Ta <u>b</u> les	•	A Explore	
	🛷 Treatment 🛛	🔗 Ketidak	Compare Means	•	Crosstabs	
1	1,00		General Linear Model	•		
2	1,00		Generalized Linear Models		I URP Analysis	
3	1,00		Mixed Models	•	🚾 <u>R</u> atio	
4	1,00		Correlate		P-P Plots	
5	1,00		Regression	F.	🛃 Q-Q Plots	
6	2,00		Loglinear	•		
7	2,00		Neural Networks	*		
8	2,00		Classify			
9	2,00		Dimension Reduction			
10	2,00		Scolo			
A			ougle			

Gambar 7 Analyze > Descriptive Statistics > Explore

2) Pada kotak dialog *Explore*, variable ketidakrataan dimasukan pada kotak *Dependent List* dan variabel *treatment* pada kotak *Factor List*. Pada bagian *Display* pilih *Both*.

ta Explore	×						
Dependent List       Statistics         ✓       Ketidakrataan         Factor List       Options         Ø       Treatment         Label Cases by:       Label Cases by:							
Display							
<u> <u> B</u>oth  <u> </u> Statistics  <u> Plots</u> </u>							
OK Paste Reset Cancel Help							

Gambar 8 Kotak dialog *Explore* 

3) Pada kotak dialog *Explore* klik *Plots,* dari beberapa pilihan klik *Untransformed* pada bagian *Spread vs Level with Levene Test,* lalu klik *Continue.* 

Explore	🕼 Explore: Plots	×	×
	Boxplots     De       Image: Dependents together     Image: Dependents together       Image: Dependent together     Image: Dependent together	scriptive <u>S</u> tem-and-leaf <u>H</u> istogram	Statistics Plo <u>t</u> s Options
-	<ul> <li>Normality plots with tests</li> <li>Spread vs Level with Levene Tes</li> <li>None</li> <li>Power estimation</li> </ul>	<u>B</u> ootstrap	
Display <u> Both</u>	Iransformed Power: Natura     Untransformed     Continue     Cancel		

Gambar 9 Kotak dialog Plots

4) Klik *Ok*, maka akan muncul *output* SPSS *Test of Homogenity of Variance* 

Test of Homogeneity of Variance										
		Levene Statistic	df1	df2	Sig.					
Ketidakrataan	Based on Mean	,332	1	8	, <mark>5</mark> 80					
	Based on Median	,095	1	8	,766					
	Based on Median and with adjusted df	,095	1	7,944	,766					
	Based on trimmed mean	,314	1	8	,591					

Gambar 10 Hasil Uji Homogenitas

### 3. Uji Independent Sample T-test

Berikut merupakan langkang-langkah Uji Independent Sample Ttest menggunakan SPSS :

1) Klik Analyze > Compare Means > Independent Sampe T Test.

<u>F</u> ile <u>E</u> dit	<u>V</u> iew <u>D</u> ata	<u>T</u> ransform	Reports	•	<u>W</u> indow <u>H</u> elp			
		<mark>л</mark> Л	D <u>e</u> scriptive Statistics <u>B</u> ayesian Statistics	*				
6 :		Ta <u>b</u> les	•					
	🛷 Treatment	🛷 Ketidak	Co <u>m</u> pare Means	•	Means			
1	1,00		<u>G</u> eneral Linear Model	•	Cne-Sample T Test			
2	1,00		Generalized Linear Models	•	Independent-Samples T Test			
3	1,00		Mixed Models	•	Summary Independent-Samples T Test			
4	1,00		<u>C</u> orrelate	•	Paired-Samples T Test			
5	1,00		Regression	•				
6	2,00		Loglinear	•	🚺 <u>O</u> ne-Way ANOVA			
7	2,00		Neural Networks	•				
8	2,00		Classify	•				
9	2,00		Dimension Reduction	•				
10	2,00		Scale	•				

Gambar 11 Analyze > Compare Means > Independent Sampe T Test

2) Pada kotak dialog Independent Sample T Test, variabel ketidakrataan dimasukkan ke kotak *Test Variable* dan variabel treatment pada kotak *Grouping Variable*.



Gambar 12 Kotak dialog Independent Sample T Test

3) Klik *Define Groups*, kemudian muncul kotak dialog. Pada kotak Group 1 diisikan 1 dan pada kotak Group 2 diisikan 2, lalu klik *Continue*.

😭 Independent-Si	imples T Test	×
	Define Groups X	Options Bootstrap
	© Use specified values Group <u>1</u> : 1	
	Group <u>2</u> : <u>2</u>	
	Cancel Help	
	DK <u>P</u> aste <u>R</u> eset Cancel Help	

Gambar 13 Kotak dialog Define Groups

4) Klik *Ok,* maka muncul *output* SPSS dengan judul *Independet Samples T-Test.* 

# T-Test

Group Statistics								
	Treatment	Ν	Mean	Std. Deviation	Std. Error Mean			
Ketidakrataan	1,00	5	2,2360	,03912	,01749			
	2,00	5	1,4920	,04550	,02035			

Independent Samples Test										
Levene's Test for Equality of Variances			t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper	
Ketidakrataan	Equal variances assumed	,332	,580	27,727	8	,000	,74400	,02683	,68212	,80588
	Equal variances not assumed			27,727	7,824	,000	,74400	,02683	,68188	,80612

Gambar 14 Hasil Independent Sample T-Test

