

LAMPIRAN

Lampiran 1 Data Putus Lusi Konsentrasi Kanji recovery 8% Pada Aplikasi TFMS

Konsentrasi Kanji 8%

<i>Shiftname</i>	<i>Beam</i>	<i>RPM</i>	<i>Effic. (%)</i>	<i>Warpstop (times)</i>	<i>Warp (times/shift)</i>
2023/12/21.A	1004	898	86.2	7	0.88
2023/12/21.B	1004	899	86.9	5	0.63
2023/12/22.C	1004	899	93.6	5	0.63
2023/12/22.A	1004	900	86.7	7	0.88
2023/12/22.B	1004	900	87.0	5	0.63
2023/12/23.C	1004	900	85.0	6	0.75
2023/12/26.C	1004	900	84.8	5	0.63
2023/12/26.A	1004	898	85.5	5	0.63
Total			86.9	48	0.7

Lampiran 2 Data Putus Lusi Konsentrasi 7% Pada Aplikasi TFMS

Konsentrasi Kanji 7%

<i>Shiftname</i>	<i>Beam</i>	<i>RPM</i>	<i>Effic. (%)</i>	<i>Warpstop (times)</i>	<i>Warp (times/shift)</i>
2023/12/14.A	807	880	87.7	2	0.25
2023/12/14.B	807	898	90.5	1	0.13
2023/12/15.C	807	897	85.6	3	0.38
2023/12/15.A	807	897	83.0	5	0.63
2023/12/15.B	807	899	84.0	4	0.50
2023/12/16.C	807	898	93.0	1	0.13
2023/12/16.A	807	897	89.3	2	0.25
2023/12/16.B	807	895	85.7	5	0.63
2023/12/18.A	807	897	89.0	4	0.50
Total			88.2	3.0	0.4

Lampiran 3 Hasil uji normalitas kekuatan tarik benang per helai

Tests of Normality						
	<i>Kolmogorov-Smirnov^a</i>			<i>Shapiro-Wilk</i>		
	Statistic	df	Sig.	Statistic	df	Sig.
konsentrasi 8	.172	30	.024	.965	30	.404
konsentrasi 7	.118	30	.200*	.959	30	.292
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Lampiran 4 Tabel Hasil Uji Homogenitas Kekuatan Tarik Benang Per Helai

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
nilai uji kekuatan tarik per helai	Based on Mean	3.745	1	58	.058
	Based on Median	2.998	1	58	.089
	Based on Median and with adjusted df	2.998	1	52.861	.089
	Based on trimmed mean	3.972	1	58	.051

Lampiran 5 Tabel Uji *Independent Sample T-Test* Kekuatan Tarik Benang Per Helai

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
nilai uji kekuatan tarik benang perhelai	Equal variances assumed	.502	.481	2.585	58	.012	35.00000	13.53766	7.90143	62.09857
	Equal variances not assumed			2.585	55.238	.012	35.00000	13.53766	7.87256	62.12744

Lampiran 6 Tabel Uji Normalitas Mulur Benang Per Helai

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
konsentrasi 8	.094	30	.200*	.971	30	.562
konsentrasi 7	.085	30	.200*	.941	30	.099
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Lampiran 7 Tabel Uji Homogenitas Mulur Benang Per Helai

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
nilai uji mulur benang per helai (%)	Based on Mean	3.114	1	55	.083
	Based on Median	2.944	1	55	.092
	Based on Median and with adjusted df	2.944	1	49.532	.092
	Based on trimmed mean	2.931	1	55	.093

Lampiran 8 Tabel Uji *Independent Sample T-Test* Mulur Benang Per Helai

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
nilai uji mulur benang per helai (%)	Equal variances assumed	.014	.906	1.651	58	.104	.36000	.21805	-.07648	.79648
	Equal variances not assumed			1.651	57.537	.104	.36000	.21805	-.07655	.79655

Lampiran 9 Tabel hasil uji normalitas tahan gosok benang

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
konsentrasi_7	.218	30	.001	.686	30	.000
konsentrasi_8	.163	30	.040	.828	30	.000

a. Lilliefors Significance Correction

Lampiran 10 Tabel hasil uji transformasi residual normalitas tahan gosok benang

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		30
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	38.10534303
Most Extreme Differences	Absolute	.146
	Positive	.106
	Negative	-.146
Test Statistic		.146
Asymp. Sig. (2-tailed)		.102 ^c

a. Test distribution is Normal.

b. Calculated from data.

Lampiran 11 Tabel hasil uji homogenitas tahan gosok benang

Test of Homogeneity of Variances		Levene Statistic	df1	df2	Sig.
nilai uji tahan gosok benang	Based on Mean	.043	1	58	.837
	Based on Median	.029	1	58	.866
	Based on Median and with adjusted df	.029	1	56.369	.866
	Based on trimmed mean	.052	1	58	.820

Lampiran 12 Tabel Hasil Uji *Independent Sample T-Test* tahan gosok benang

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
uji_tahan_gosok_benang	Equal variances assumed	5.253	.026	2.028	58	.047	102.10000	50.33937	1.33480	202.86520
	Equal variances not assumed			2.028	49.938	.048	102.10000	50.33937	.98726	203.21274

Lampiran 13 Peluang terjadinya putus lusi berdasarkan distribusi poisson

	Poisson.Disc	X
Konsentrasi 7%	0.049787068	3
Konsentrasi 8%	0.006737947	5

Perhitungan uji kesamaan rata-rata *poisson*

Untuk hipotesis

$$H_0 : X_1 = X_2$$

$$H_1 : X_1 \neq X_2$$

Jika dengan satuan-satuan yang diperlukan diketahui data berikut.

Konsentrasi benang	Jumlah putus lusi yang terjadi	Banyak putus lusi (X _i)
Konsentrasi kanji recovery 7%	2,1,3,5,4,1,2,5,4	27
Konsentrasi kanji recovery 8%	7,5,5,7,5,6,5,5,3	52
Σ		79
$\bar{x}$		39,5

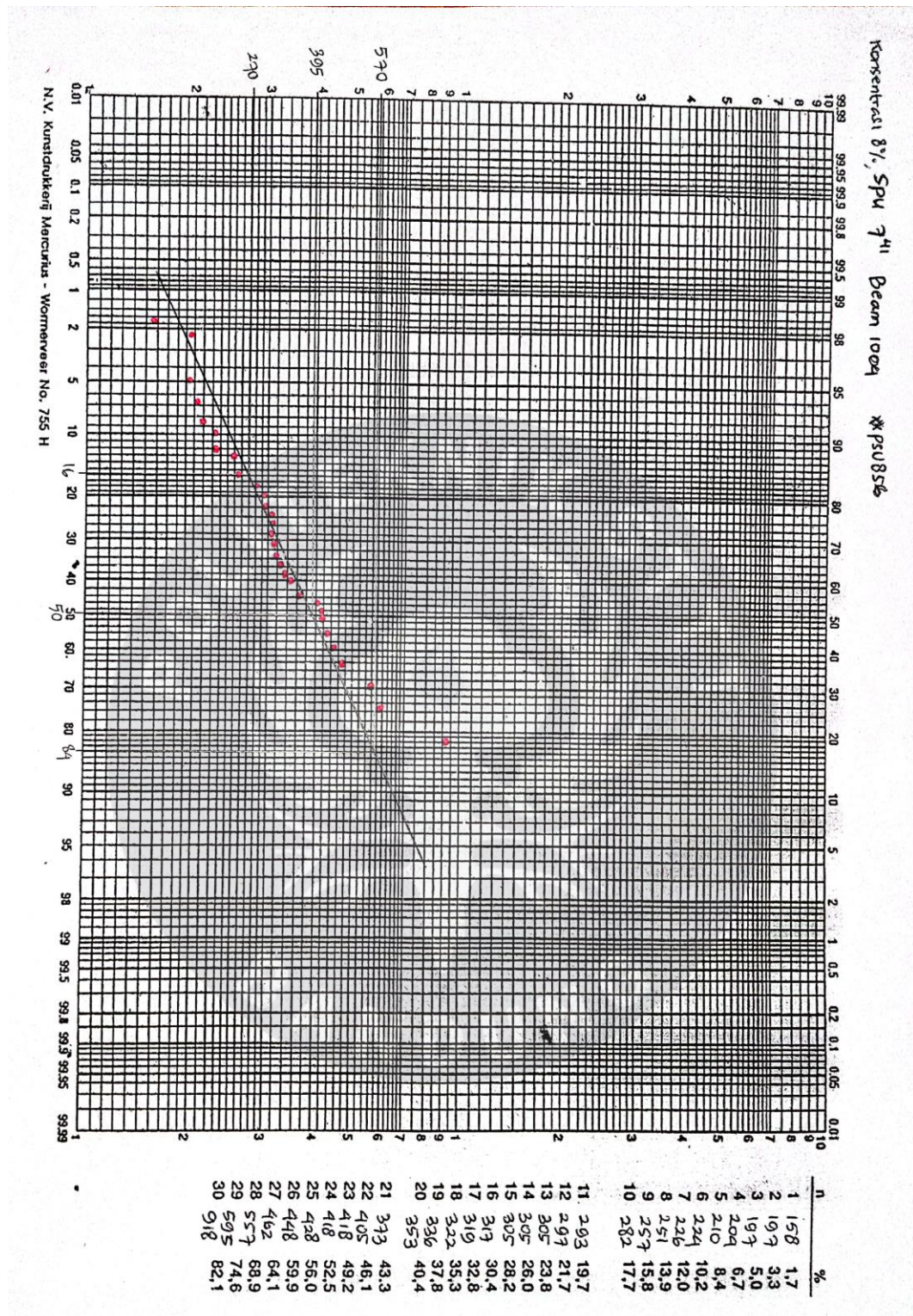
Berdasarkan perhitungan uji kesamaan rata-rata *poisson*, maka pengujian hipotesis dapat menggunakan rumus statistik.

$$\begin{aligned}
 X^2 \text{ hitung} &= \sum \frac{(X_i - \bar{x})^2}{\bar{x}} \\
 &= \frac{(52-39,5)^2}{39,5} + \frac{(27-39,5)^2}{39,5} \\
 &= 3,95 + 3,95 \\
 &= 7,9
 \end{aligned}$$

X^2 tabel dengan taraf signifikansi 95% adalah $X^2 (0,95)(1) = 3,84$.

Berdasarkan perhitungan tersebut diperoleh X^2 hitung > X^2 tabel berarti H_0 ditolak dan H_1 diterima. Maka dinyatakan kedua data putus lusi tergolong memiliki rata-rata berbeda.

Lampiran 14 Grafik tahan gosok benang dengan konsentrasi kanji recovery 8%



Lampiran 15 Grafik tahan gosok benang konsentrasi kanji *recovery* 7%

