|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | participants | pre test | post test | Score difference |
| 1 | students 1 | 70 | 97,5 | 27,5 |
| 2 | students 2 | 85 | 100 | 15 |
| 3 | students 3 | 67,5 | 97,5 | 30 |
| 4 | students 4 | 50 | 80 | 30 |
| 5 | students 5 | 62,5 | 87,5 | 25 |
| 6 | students 6 | 75 | 97,5 | 22,5 |
| 7 | students 7 | 50 | 70 | 20 |
| 8 | students 8 | 25 | 60 | 35 |
| 9 | students 9 | 50 | 65 | 15 |
| 10 | students 10 | 70 | 100 | 30 |
| 11 | students 11 | 67,5 | 92,5 | 25 |
| 12 | students 12 | 85 | 97,5 | 12,5 |
| 13 | students 13 | 45 | 60 | 15 |
| 14 | students 14 | 62,5 | 97,5 | 35 |
| 15 | students 15 | 77,5 | 92,5 | 15 |
| 16 | students 16 | 37,5 | 50 | 12,5 |
| 17 | students 17 | 77,5 | 100 | 22,5 |
| 18 | students 18 | 50 | 84 | 34 |
| 19 | students 19 | 62,5 | 95 | 32,5 |
| 20 | students 20 | 50 | 86 | 36 |
| 21 | students 21 | 75 | 97,5 | 22,5 |
| 22 | students 22 | 67,5 | 100 | 32,5 |
| 23 | students 23 | 55 | 82 | 27 |
| 24 | students 24 | 70 | 95 | 25 |
| 25 | students 25 | 70 | 100 | 30 |
| 26 | students 26 | 60 | 90 | 30 |
| 27 | students 27 | 77,5 | 90 | 12,5 |
| 28 | students 28 | 75 | 95 | 20 |
| 29 | students 29 | 70 | 100 | 30 |
| 30 | students 30 | 77,5 | 95 | 17,5 |
| 31 | students 31 | 60 | 87,5 | 27,5 |
| 32 | students 32 | 77,5 | 100 | 22,5 |
| 33 | students 33 | 75 | 90 | 15 |
| 34 | students 34 | 65 | 87,5 | 22,5 |
| 35 | students 35 | 80 | 100 | 20 |
|  | TOTAL | 2275 | 3119,5 |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | participants | pre test | post test | difference |
| 1 | student 1 | 57,5 | 80 | 22,5 |
| 2 | student 2 | 50 | 62,5 | 12,5 |
| 3 | student 3 | 65 | 77,5 | 12,5 |
| 4 | student 4 | 52,5 | 82,5 | 30 |
| 5 | student 5 | 30 | 60 | 30 |
| 6 | student 6 | 30 | 60 | 30 |
| 7 | student 7 | 67,5 | 85 | 17,5 |
| 8 | student 8 | 82,5 | 90 | 7,5 |
| 9 | student 9 | 62,5 | 85 | 22,5 |
| 10 | student 10 | 37,5 | 62,5 | 25 |
| 11 | student 11 | 82,5 | 90 | 7,5 |
| 12 | student 12 | 25 | 45 | 20 |
| 13 | student 13 | 60 | 88 | 28 |
| 14 | student 14 | 55 | 85 | 30 |
| 15 | student 15 | 70 | 92,5 | 22,5 |
| 16 | student 16 | 30 | 65 | 35 |
| 17 | student 17 | 47,5 | 60 | 12,5 |
| 18 | student 18 | 62,5 | 80 | 17,5 |
| 19 | student 19 | 62,5 | 87,5 | 25 |
| 20 | student 20 | 77,5 | 97,5 | 20 |
| 21 | student 21 | 82,5 | 92 | 9,5 |
| 22 | student 22 | 52,5 | 80 | 27,5 |
| 23 | student 23 | 40 | 60 | 20 |
| 24 | student 24 | 25 | 45 | 20 |
| 25 | student 25 | 70 | 90 | 20 |
| 26 | student 26 | 87,5 | 96 | 8,5 |
| 27 | student 27 | 45,5 | 58 | 12,5 |
| 28 | student 28 | 72,5 | 87,5 | 15 |
| 29 | student 29 | 45 | 80 | 35 |
| 30 | student 30 | 85 | 96 | 11 |
| 31 | student 31 | 52,5 | 62,5 | 10 |
| 32 | student 32 | 75 | 90 | 15 |
| 33 | student 33 | 55 | 90 | 35 |
| 34 | student 34 | 37,5 | 68 | 30,5 |
| 35 | student 35 | 87,5 | 96 | 8,5 |
|  | TOTAL | 2020,5 | 2726,5 |  |

DATA SISWA

Experimental group

Control group

HASIL SPSS

1. Descriptive statistic

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Descriptive Statistics** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Pre-Test Experimental | 35 | 25 | 85 | 65,00 | 13,720 |
| Post-Test Experimental | 35 | 50 | 100 | 89,13 | 13,154 |
| Pre-Test Control | 35 | 25 | 88 | 57,73 | 18,741 |
| Post-Test Control | 35 | 45 | 98 | 77,90 | 15,152 |
| Valid N (listwise) | 35 |  |  |  |  |

1. The normality test of experimental class

|  |  |  |
| --- | --- | --- |
| **One-Sample Kolmogorov-Smirnov Test** | | |
|  | | Unstandardized Residual |
| N | | 35 |
| Normal Parametersa,b | Mean | ,0000000 |
| Std. Deviation | 6,81387283 |
| Most Extreme Differences | Absolute | ,139 |
| Positive | ,070 |
| Negative | -,139 |
| Test Statistic | | ,139 |
| Asymp. Sig. (2-tailed) | | ,087c |
| a. Test distribution is Normal. | | |
| b. Calculated from data. | | |
| c. Lilliefors Significance Correction. | | |

1. The normality test of control class

|  |  |  |
| --- | --- | --- |
| **One-Sample Kolmogorov-Smirnov Test** | | |
|  | | Unstandardized Residual |
| N | | 35 |
| Normal Parametersa,b | Mean | ,0000000 |
| Std. Deviation | 6,85771182 |
| Most Extreme Differences | Absolute | ,084 |
| Positive | ,084 |
| Negative | -,077 |
| Test Statistic | | ,084 |
| Asymp. Sig. (2-tailed) | | ,200c,d |
| a. Test distribution is Normal. | | |
| b. Calculated from data. | | |
| c. Lilliefors Significance Correction. | | |
| d. This is a lower bound of the true significance. | | |

1. The homogenity test

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test of Homogeneity of Variance** | | | | | |
|  | | Levene Statistic | df1 | df2 | Sig. |
| the result of the data | Based on Mean | 2,765 | 1 | 68 | ,101 |
| Based on Median | 1,767 | 1 | 68 | ,188 |
| Based on Median and with adjusted df | 1,767 | 1 | 66,725 | ,188 |
| Based on trimmed mean | 2,716 | 1 | 68 | ,104 |

1. Independent sample test

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |
| Test Result | Equal variances assumed | 2,765 | ,101 | 3,311 | 68 | ,001 | 11,229 | 3,392 | 4,461 | 17,997 |
| Equal variances not assumed |  |  | 3,311 | 66,684 | ,002 | 11,229 | 3,392 | 4,458 | 17,999 |