

## HIPOTESIS I

### T. Test Wilcoxon Signed Ranks Test

#### Paired Samples Statistics

|        |           | Mean    | N  | Std. Deviation | Std. Error Mean |
|--------|-----------|---------|----|----------------|-----------------|
| Pair 1 | Sebelum 1 | 90.7000 | 10 | 3.62246        | 1.14552         |
|        | Sesudah 1 | 86.1300 | 10 | 3.61049        | 1.14174         |

#### Paired Samples Correlations

|        |                       | N  | Correlation | Sig. |
|--------|-----------------------|----|-------------|------|
| Pair 1 | Sebelum 1 & Sesudah 1 | 10 | .995        | .000 |

#### 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 1<br>Sesudah 1 | 4.57000            | <b>.37133</b>  | .11743          | 4.30436                                   | 4.83564 | 38.918 | 9  | .000            |

## HIPOTESIS II

### T. Test Wilcoxon Signed Ranks Test

**Paired Samples Statistics**

|                   | Mean    | N  | Std. Deviation | Std. Error Mean |
|-------------------|---------|----|----------------|-----------------|
| Pair 1 Sebelum II | 89.4000 | 10 | 2.01108        | .63596          |
| Sesudah II        | 86.2600 | 10 | 1.92654        | .60923          |

**Paired Samples Correlations**

|                                | N  | Correlation | Sig. |
|--------------------------------|----|-------------|------|
| Pair 1 Sebelum II & Sesudah II | 10 | .951        | .000 |

**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 II –<br>Sesudah II | 3.14000            | .62218         | .19675          | 2.69492                                   | 3.58508 | 15.959 | 9  | .000            |

### HIPOTESIS III

#### Mann-Whitney test

##### Ranks

| VAR00001          | N  | Mean Rank | Sum of Ranks |
|-------------------|----|-----------|--------------|
| <b>Selisihi 1</b> | 10 | 15.05     | 150.50       |
| <b>2</b>          | 10 | 5.95      | 59.50        |
| Total             | 20 |           |              |

##### Test Statistics<sup>b</sup>

|                                | Selisihi          |
|--------------------------------|-------------------|
| <b>Mann-Whitney U</b>          | <b>4.500</b>      |
| <b>Wilcoxon W</b>              | <b>59.500</b>     |
| Z                              | -3.458            |
| Asymp. Sig. (2-tailed)         | .001              |
| Exact Sig. [2*(1-tailed Sig.)] | .000 <sup>a</sup> |

a. Not corrected for ties.

b. Grouping Variable: VAR00001

# Test Normalitas

**Case Processing Summary**

|           | Cases |         |         |         |       |         |
|-----------|-------|---------|---------|---------|-------|---------|
|           | Valid |         | Missing |         | Total |         |
|           | N     | Percent | N       | Percent | N     | Percent |
| SebelumI  | 10    | 100.0%  | 0       | .0%     | 10    | 100.0%  |
| SesudahI  | 10    | 100.0%  | 0       | .0%     | 10    | 100.0%  |
| SelisihI  | 10    | 100.0%  | 0       | .0%     | 10    | 100.0%  |
| SebelumII | 10    | 100.0%  | 0       | .0%     | 10    | 100.0%  |
| SesudahII | 10    | 100.0%  | 0       | .0%     | 10    | 100.0%  |
| SelisihII | 10    | 100.0%  | 0       | .0%     | 10    | 100.0%  |

**Descriptives**

|                  |                                  | Statistic      | Std. Error |
|------------------|----------------------------------|----------------|------------|
| <b>Sebelum 1</b> | <b>Mean</b>                      | <b>90.7000</b> | 1.14552    |
|                  | 95% Confidence Interval for Mean |                |            |
|                  | Lower Bound                      | 88.1086        |            |
|                  | Upper Bound                      | 93.2914        |            |
|                  | 5% Trimmed Mean                  | 90.5000        |            |
|                  | Median                           | 89.5000        |            |
|                  | Variance                         | 13.122         |            |
|                  | Std. Deviation                   | 3.62246        |            |
|                  | Minimum                          | 87.00          |            |
|                  | Maximum                          | 98.00          |            |
|                  | Range                            | 11.00          |            |
|                  | Interquartile Range              | 5.00           |            |
|                  | Skewness                         | 1.284          | .687       |
|                  | Kurtosis                         | .658           | 1.334      |

|                  |                                  |             |                |         |
|------------------|----------------------------------|-------------|----------------|---------|
| <b>Sesudah 1</b> | <b>Mean</b>                      |             | <b>86.1300</b> | 1.14174 |
|                  | 95% Confidence Interval for Mean | Lower Bound | 83.5472        |         |
|                  |                                  | Upper Bound | 88.7128        |         |
|                  | 5% Trimmed Mean                  |             | 85.9389        |         |
|                  | Median                           |             | 85.0000        |         |
|                  | Variance                         |             | 13.036         |         |
|                  | Std. Deviation                   |             | 3.61049        |         |
|                  | Minimum                          |             | 82.30          |         |
|                  | Maximum                          |             | 93.40          |         |
|                  | Range                            |             | 11.10          |         |
|                  | Interquartile Range              |             | 5.55           |         |
|                  | Skewness                         |             | 1.168          | .687    |
|                  | Kurtosis                         |             | .457           | 1.334   |

|                  |                                  |             |               |        |
|------------------|----------------------------------|-------------|---------------|--------|
| <b>Selisih 1</b> | <b>Mean</b>                      |             | <b>4.5700</b> | .11743 |
|                  | 95% Confidence Interval for Mean | Lower Bound | 4.3044        |        |
|                  |                                  | Upper Bound | 4.8356        |        |
|                  | 5% Trimmed Mean                  |             | 4.5833        |        |
|                  | Median                           |             | 4.6500        |        |
|                  | Variance                         |             | .138          |        |
|                  | Std. Deviation                   |             | .37133        |        |
|                  | Minimum                          |             | 3.90          |        |
|                  | Maximum                          |             | 5.00          |        |
|                  | Range                            |             | 1.10          |        |
|                  | Interquartile Range              |             | .47           |        |
|                  | Skewness                         |             | -.844         | .687   |
|                  | Kurtosis                         |             | .010          | 1.334  |

|                   |                                  |             |                |        |
|-------------------|----------------------------------|-------------|----------------|--------|
| <b>Sebelum II</b> | <b>Mean</b>                      |             | <b>89.4000</b> | .63596 |
|                   | 95% Confidence Interval for Mean | Lower Bound | 87.9614        |        |
|                   |                                  | Upper Bound | 90.8386        |        |
|                   | 5% Trimmed Mean                  |             | 89.2778        |        |
|                   | Median                           |             | 89.0000        |        |
|                   | Variance                         |             | 4.044          |        |
|                   | Std. Deviation                   |             | 2.01108        |        |
|                   | Minimum                          |             | 87.00          |        |
|                   | Maximum                          |             | 94.00          |        |
|                   | Range                            |             | 7.00           |        |
|                   | Interquartile Range              |             | 2.25           |        |
|                   | Skewness                         |             | 1.361          | .687   |
|                   | Kurtosis                         |             | 2.323          | 1.334  |

|                   |                                  |                |        |
|-------------------|----------------------------------|----------------|--------|
| <b>Sesudah II</b> | <b>Mean</b>                      | <b>86.2600</b> | .60923 |
|                   | 95% Confidence Interval for Mean |                |        |
|                   | Lower Bound                      | 84.8818        |        |
|                   | Upper Bound                      | 87.6382        |        |
|                   | 5% Trimmed Mean                  | 86.0833        |        |
|                   | Median                           | 85.6000        |        |
|                   | Variance                         | 3.712          |        |
|                   | Std. Deviation                   | 1.92654        |        |
|                   | Minimum                          | 84.70          |        |
|                   | Maximum                          | 91.00          |        |
|                   | Range                            | 6.30           |        |
|                   | Interquartile Range              | 1.72           |        |
|                   | Skewness                         | 1.975          | .687   |
|                   | Kurtosis                         | 4.015          | 1.334  |

|                   |                                  |               |        |
|-------------------|----------------------------------|---------------|--------|
| <b>Selisih II</b> | <b>Mean</b>                      | <b>3.1400</b> | .19675 |
|                   | 95% Confidence Interval for Mean |               |        |
|                   | Lower Bound                      | 2.6949        |        |
|                   | Upper Bound                      | 3.5851        |        |
|                   | 5% Trimmed Mean                  | 3.1056        |        |
|                   | Median                           | 3.0000        |        |
|                   | Variance                         | .387          |        |
|                   | Std. Deviation                   | .62218        |        |
|                   | Minimum                          | 2.30          |        |
|                   | Maximum                          | 4.60          |        |
|                   | Range                            | 2.30          |        |
|                   | Interquartile Range              | .48           |        |
|                   | Skewness                         | 1.491         | .687   |
|                   | Kurtosis                         | 3.208         | 1.334  |

**Tests of Normality**

|                   | Kolmogorov-Smirnov <sup>a</sup> |    |                   | Shapiro-Wilk |    |             |
|-------------------|---------------------------------|----|-------------------|--------------|----|-------------|
|                   | Statistic                       | df | Sig.              | Statistic    | df | Sig.        |
| <b>Sebelum 1</b>  | .277                            | 10 | .029              | .840         | 10 | <b>.045</b> |
| <b>Sesudah 1</b>  | .269                            | 10 | .038              | .867         | 10 | <b>.092</b> |
| <b>Selisih 1</b>  | .225                            | 10 | .163              | .893         | 10 | <b>.185</b> |
| <b>Sebelum II</b> | .183                            | 10 | .200 <sup>*</sup> | .885         | 10 | <b>.151</b> |
| <b>Sesudah II</b> | .292                            | 10 | .016              | .761         | 10 | <b>.005</b> |
| <b>Selisih II</b> | .289                            | 10 | .018              | .842         | 10 | <b>.047</b> |

a. Lilliefors Significance Correction

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

Group Statistics

| SelisihII |   | N  | Mean   | Std. Deviation | Std. Error Mean |
|-----------|---|----|--------|----------------|-----------------|
| SelisihI  | 1 | 10 | 4.5700 | .37133         | .11743          |
|           | 2 | 10 | 3.1400 | .62218         | .19675          |